Chapter 6
Cumulative Effects



COUNTY OF RIVERSIDE
ENVIRONMENTAL ASSESSMENT FORM: INITIAL STUDY

Environmental Assessment (E.A.) Number: 39816
Project Case Type (s) and Number(s): Specific Plan No. 342
Lead Agency Name: County of Riverside Planning Department
Address: P.O. Box 1409, Riverside, CA 92505-1409
Contact Person: Adam Rush, Planner IV
Telephone Number**:** (951) 955-9076
Applicant's Name: Nuevo Development Corporation Attn: Andrew Petitjean
Applicant's Address: 1156 N. Mountain Avenue, Upland, CA 91785-0670

I. PROJECT INFORMATION

A. Project Description:

The project site is located in Riverside County in the unincorporated area of Lakeview/Nuevo between the Cities of Perris and San Jacinto. The project is bisected by the Ramona Expressway, as well as the Metropolitan Water District aqueduct. Most of the project area is south of the Ramona Expressway; however, there is a portion of the project area in the northwest corner which is located north of Ramona Expressway. This northern piece of the project is adjacent to the San Jacinto Wildlife Area. A large portion of the Lakeview Mountains are within the southeastern portion of the project.

The Villages of Lakeview Specific Plan proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads and other infrastructure. See Table 1 for a breakdown of the proposed land uses. Existing infrastructure such as water, sewer, storm drain and roadways will also be expanded as part of the Villages of Lakeview Specific Plan.

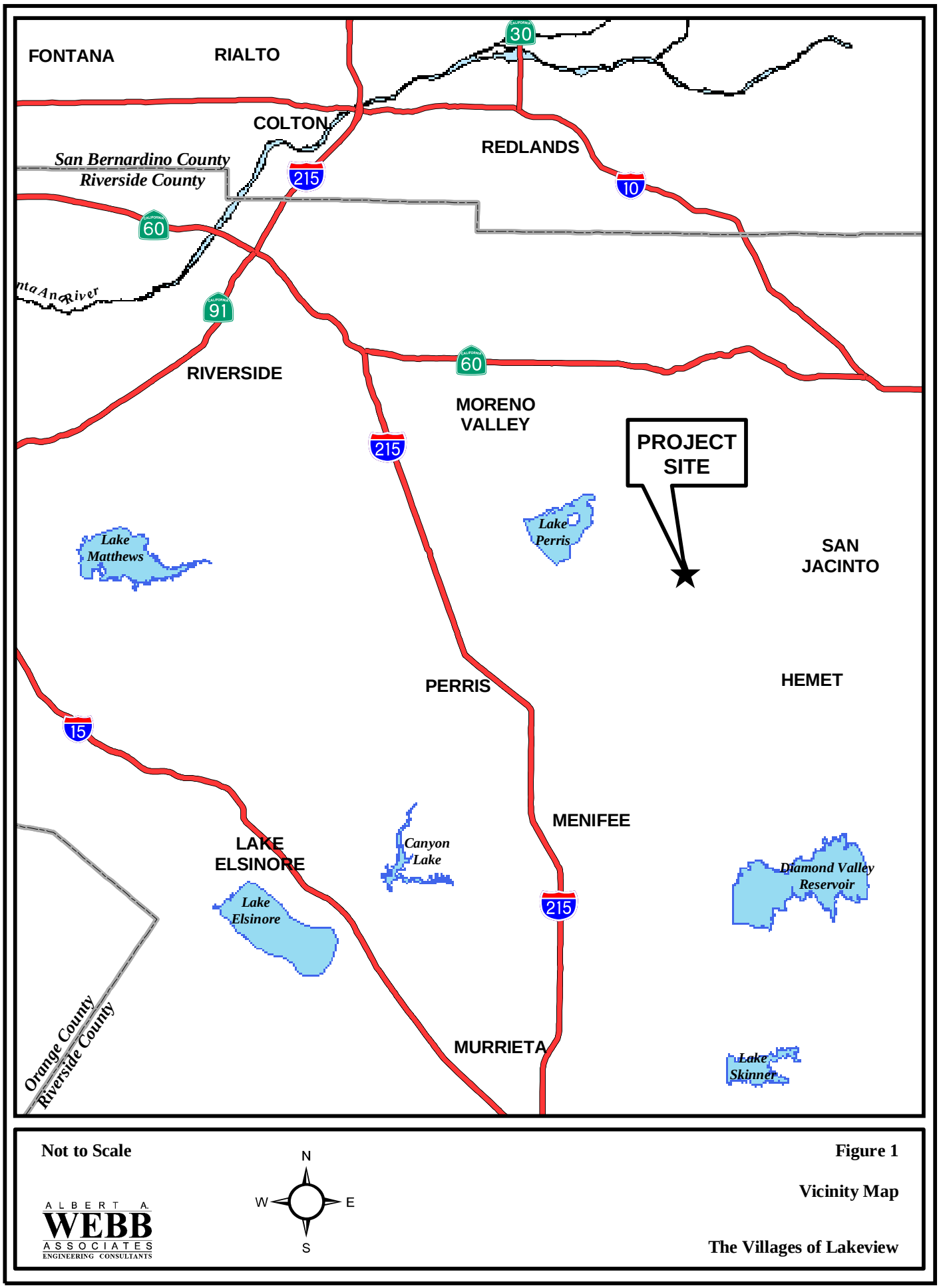
Existing land uses onsite include Nutrilite farmland, the McAnally chicken ranch, Metropolitan Water District (MWD) aqueduct and basin, a closed Lakeview dump, a thoroughbred farm, an abandoned RV park, and dryland and irrigated farmland. The Ramona Expressway extends east/west separating a northern village from the remaining villages to the south.

The project consists of the following land use applications:

Specific Plan No. 342: The Villages of Lakeview Specific Plan will allow for a maximum of 11,350 du to be constructed within 8-10 Villages. Within each Village, there will be a mix of residential and non-residential uses. The number of residences allowed within each Village could range from 500-3,000 du, but no more than 11,350 du in total will be developed. See the Proposed Conceptual Diagram Land Use Plan. The assessor parcels included in this Specific Plan are enclosed.

General Plan Amendment No. 720: Proposes the following amendment to the Land Use and Circulation Elements of the General Plan:

> **Land Use Element Amendment**: The proposed specific plan will require a General Plan Amendment to change the land use designations in the Lakeview Area Plan. The Land Use Element Amendment consists of three sub-amendments. The first amendment required is a Technical Correction Amendment needed to rectify errors related to mapping which resulted in accuracies related to areas within the Lakeview Mountains, and those in the lowlands. The



Not to Scale

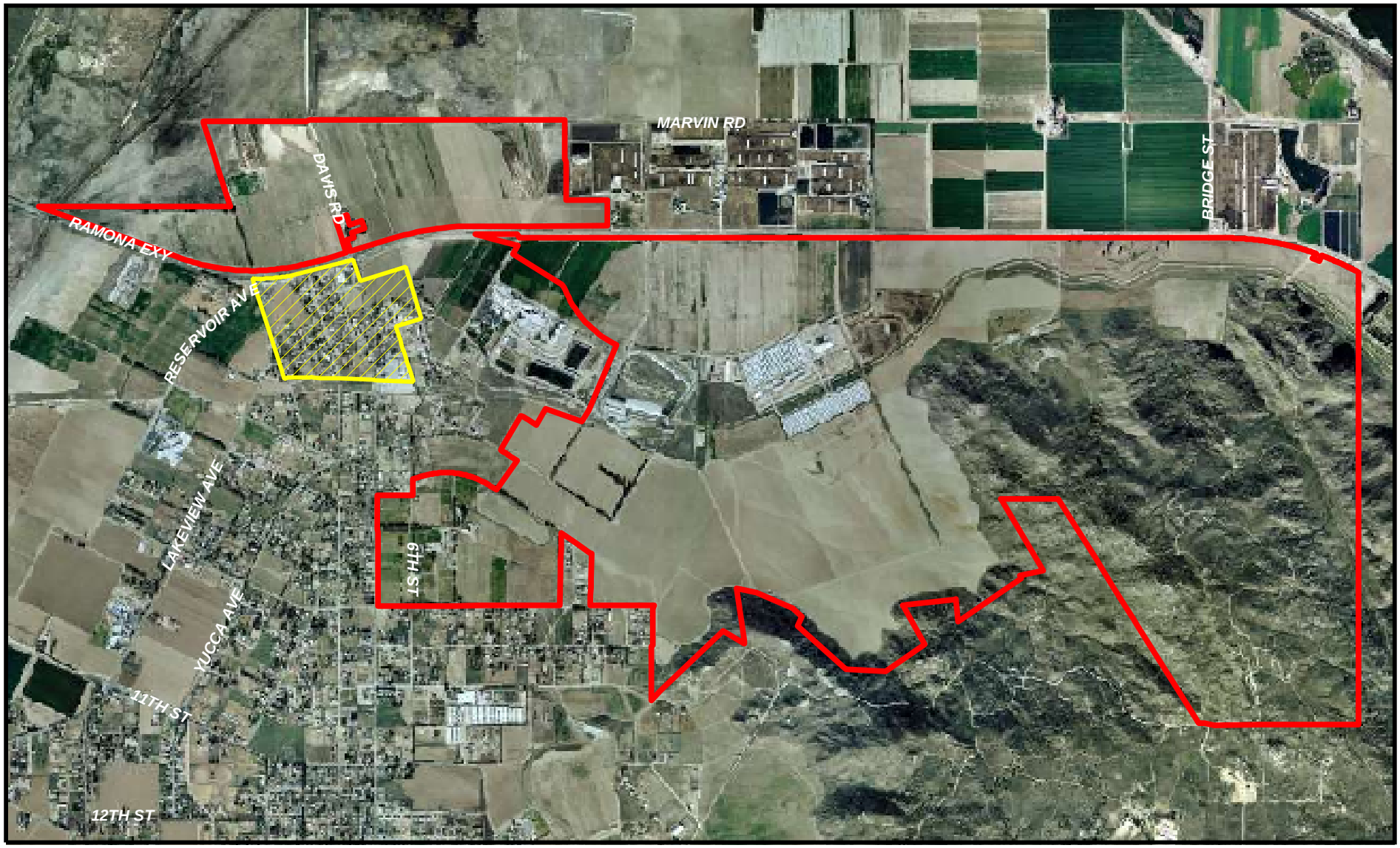
Figure 1

Vicinity Map

The Villages of Lakeview

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS

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Source: AirPhoto USA 2006
Riverside County

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS

N
W E
S

0 1,000 2,000 Feet

Legend
- Project Boundary
- Redevelopment Area

Figure 2

Project Site

The Villages of Lakeview

G:\2003\03-0267\Gis\aerial.mxd

second amendment will be a Foundation Amendment taking place after the Technical Correction Amendment is implemented, to change underlying designations generally within the Rural Community Foundation to the Community Development Foundation. The third amendment will be an Agricultural Foundation Change, utilizing the County's 7% conversion allowed under the General Plan. See Appendix A for the detailed Findings related to these Amendments.

Circulation Element Amendment: The proposed Villages of Lakeview Specific Plan will also be required to modify the Circulation Element of the Riverside County General Plan. The project will include upgrading and downgrading numerous exisitng and proposed roadway classifications shown on the current circulation element plan for the Lakeview/Nuevo Area Plan.

Trail General Plan Amendment: Currently, the project area does not have any designated Regional Trails. The project proposes a General Plan Amendment to Trails so that the various trails proposed by the project can be designated as Regional Trails. Generally, the project proposal for the Regional Trail designation would affect the trails proposed within the Metropolitan Water District aqueduct, within the Lakeview Mountains and along the northern boundary of the project near the San Jacinto Wildlife Area. Other trails proposed by the project connecting various components of the project to the existing surroundings are also proposed for Regional Trail status.

Development Agreement: The Development Agreement will include items dealing with the provision of public improvements, requirements to dedicate land for parks and open space and development fees. The DA will be processed concurrently with the SP00342 and addressed in the forthcoming project EIR00471.

Tentative Parecl Map Nos. 35047 and 35048 : The proposed project will include tentative parcel maps which will cover the first phase of anticiapted development of the Specific Plan. The area covered by the tentative parcel map is expected to generally cover the western third of the Specific Plan area, on both sides of the Ramona Expressway.

Change of Zone No. 07055 proposes to change the zoning classifications of the subject site from A-1-10 (Light Agricultural-10 ac minimum), A-2-10 (Heavy Agricultural-10 ac minimum), A-P (Light Agricultural with Poultry), C-P-S (Scenic Highway Commercial), C-R (Rural Commercial), M-SC (Manufacturing-Service Commercial), R-1 (One-Family Dwelling), R-A (Residential Agricultural), R-A-1 (Residential Agricultural – 1 ac minimum), R-A-10 (Residential Agricultural, 10 ac minimum), R-A-$2^{1/2}$ (Residential Agricultural - $2^{1/2}$ ac minimum), R-R (Rural Residential) to SP (Specific Plan).

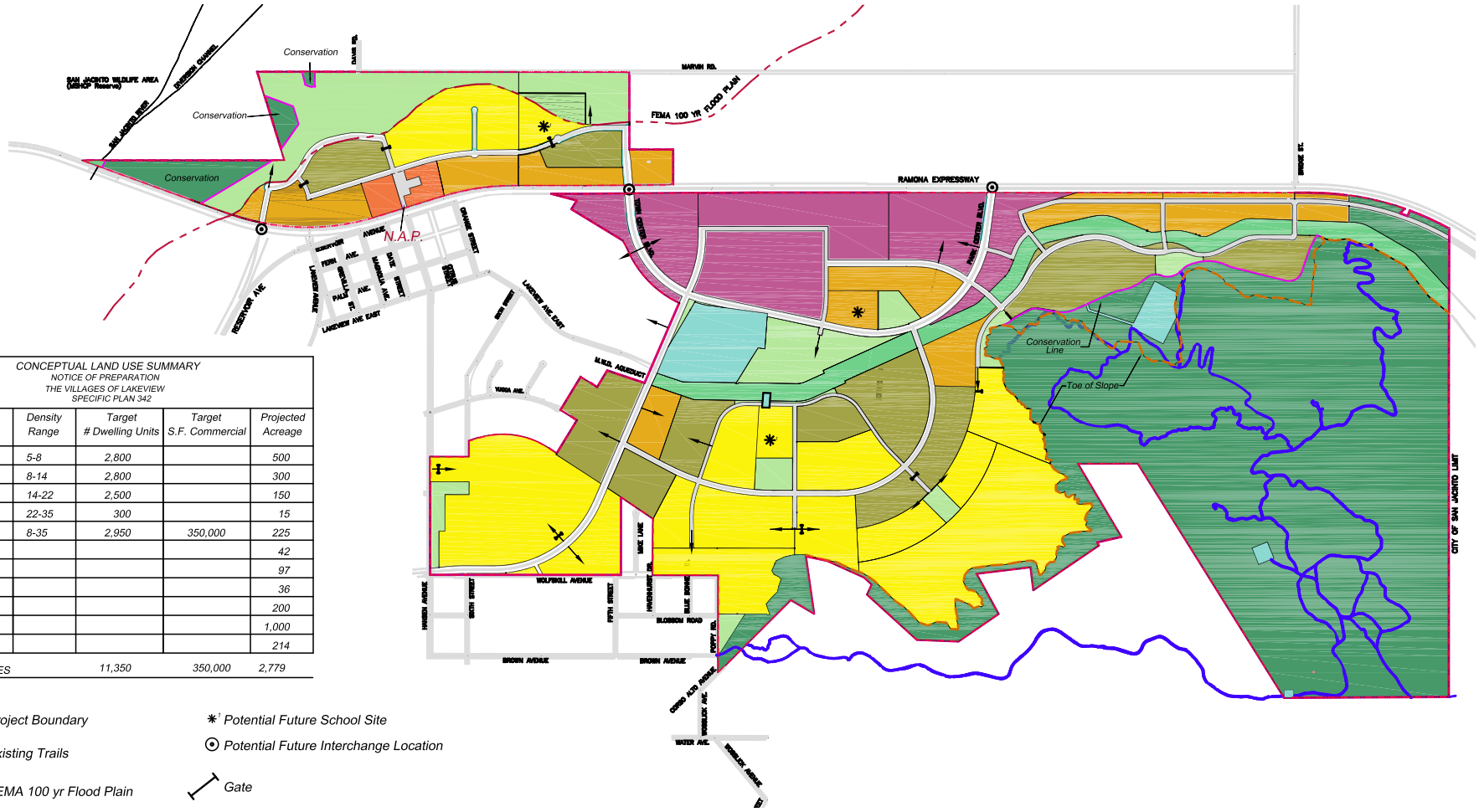
B. Type of Project: Site Specific ☒; Countywide ☐; Community ☐; Policy ☐.

C. Total Project Area: approximately 2,800 acres

Residential Acres: 1,140	**Lots:**	**Units:** 11,350	**Projected No. of Residents:** 34,050
Commercial Acres: 50	**Lots:**	**Sq. Ft. of Bldg. Area:** 350,000	**Est. No. of Employees:**
Industrial Acres:	**Lots:**	**Sq. Ft. of Bldg. Area:**	**Est. No. of Employees:**

Other: Schools: 36 acres; Parks: 200 acres; Public Facilities: 139 acres; Open Space: 1,000 acres; Right of Way: 214 acres

D. Assessor's Parcel No(s): over 170 different APNs (see Table 2).



CONCEPTUAL LAND USE SUMMARY
NOTICE OF PREPARATION
THE VILLAGES OF LAKEVIEW
SPECIFIC PLAN 342

Land Use Designation		Density Range	Target # Dwelling Units	Target S.F. Commercial	Projected Acreage
	MH	5-8	2,800		500
	H	8-14	2,800		300
	VH	14-22	2,500		150
	HT	22-35	300		15
	MU	8-35	2,950	350,000	225
	PF				42
	PF/OS				97
✱[1]	SCHOOLS				36
	PARKS				200
	OS				1,000
	ROW/Other				214
	TOTAL ACRES		11,350	350,000	2,779

LEGEND:

- Project Boundary
- Existing Trails
- FEMA 100 yr Flood Plain
- Toe of Slope
- Conservation Line
- ✱[1] Potential Future School Site
- Potential Future Interchange Location
- Gate

CONCEPTUAL LAND USE DIAGRAM

WILLIAM HEZMALHALCH ARCHITECTS, INC.© 2006

July 17, 2006

2003274.07

0 400 800 1600

THE VILLAGES OF LAKEVIEW

RIVERSIDE COUNTY, CALIFORNIA

WILLIAM HEZMALHALCH
ARCHITECTS INC.
2850 REDHILL AVENUE SUITE 200 SANTA ANA CA 92705-5543
949 250 0607 www.wharchitects.com fax 949 250 1529

E. Street References: Ramona Expressway, Lakeview Avenue, Hansen Avenue, 6th Street, 5th Street

Table 1: CONCEPTUAL LAND USE SUMMARY
THE VILLAGES OF LAKEVIEW
SPECIFIC PLAN 342

Land Use Designation	Density Range	Target # Dwelling Units	Target Square Feet Commercial	Projected Acreage
Medium-High Density Residential	5 - 8	2,800		500
High Density Residential	8 - 14	2,800		300
Very High Density Residential	14 - 22	2,500		150
Highest Density Residential	22 - 35	300		15
Mixed-Use Town Center	8 - 35	2,950	350,000	225
Public Facility				42
Public Facility / Open Space				97
Schools				36
Parks				200
Open Space				1,000
ROW / Other				214
Total		11,350	350,000	2,779

Table 2: APN LIST
INITIAL STUDY/NOTICE OF PREPARATION
SPECIFIC PLAN 342
THE VILLAGES OF LAKEVIEW

ON RECORD				SPECIFIC PLAN REFERENCE
APN #	Acres	Owner (Last Name)	Reference Name	Adjusted Acres
425160001	77.63	AMWAY CORP	**NUTRILITE: SUBJECT TO A 2007 LLA**	57.7
426050004	6.90	AMWAY CORP	**NUTRILITE: SUBJECT TO A 2007 LLA**	3.3
426150001	14.38	AMWAY CORP	**NUTRILITE: SUBJECT TO A 2007 LLA**	1.1
426150004	18.69	AMWAY CORP	**NUTRILITE: SUBJECT TO A 2007 LLA**	0.0
426160054	41.22	AMWAY CORP	**NUTRILITE: SUBJECT TO A 2007 LLA**	0.0
426160055	41.22	AMWAY CORP	**NUTRILITE: SUBJECT TO A 2007 LLA**	11.5
425260002	21.08	BLACKSTONE INV PROP	**BLACKSTONE: SUBJECT TO '06 LLA (17.93)**	4.6
425260003	17.20	BLACKSTONE INV PROP	**BLACKSTONE: SUBJECT TO '06 LLA (17.93)**	3.4
425260004	9.45	BLACKSTONE INV PROP	**BLACKSTONE: SUBJECT TO '06 LLA (17.93)**	8.0
425260005	10.43	BLACKSTONE INV PROP	**BLACKSTONE: SUBJECT TO '06 LLA (17.93)**	2.0
425250012	21.84	BLACKSTONE INV PROP	**BLACKSTONE: SUBJECT TO '06 LLA (21.57)**	8.5
425240012	19.58	BLACKSTONE INV PROP	**BLACKSTONE: SUBJECT TO '06 LLA (21.57)**	7.9
425240013	19.66	BLACKSTONE INV PROP	**BLACKSTONE: SUBJECT TO '06 LLA (21.57)**	5.2
426030002	1.11	FUENTES	FUENTES	
426030003	1.20	FUENTES	FUENTES	
426030005	4.44	FUENTES	FUENTES	
426030006	2.22	FUENTES	FUENTES	
426030009	4.44	FUENTES	FUENTES	
426030010	2.22	FUENTES	FUENTES	
426030018	0.73	FUENTES	FUENTES	16.4
426040003	0.36	VALDEZ	1 OF 4 MOBILE HOMES ON DAVIS RD.	0.4
426200052	1.30	HAVENS	HAVENS	
426200053	13.44	HAVENS	HAVENS	14.7
426160026	10.30	ABUDAYYEH	ABUDAYYEH	
426160027	9.54	ABUDAYYEH	ABUDAYYEH	
426160028	17.92	ABUDAYYEH	ABUDAYYEH	
426160029	9.54	ABUDAYYEH	ABUDAYYEH	
426160030	8.88	ABUDAYYEH	ABUDAYYEH	
426200028	4.81	ABUDAYYEH	ABUDAYYEH	
426200029	4.62	ABUDAYYEH	ABUDAYYEH	
426200030	9.28	ABUDAYYEH	ABUDAYYEH	74.9
425170019	15.52	AWAD	AWAD	
425170020	13.39	AWAD	AWAD	28.9
425190001	1.30	GRACIANO	GRACIANO	1.3
425140009	34.51	ROSS	ROSS	
425140011	15.00	ROSS	ROSS	49.5
425180001	11.00	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
425190002	165.60	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
425190009	83.20	LG HOLDING COMPANY, LLC	SHERMAN RANCH	

426160019	4.77	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
426160022	9.15	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
426160025	9.15	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
426200016	9.18	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
426200025	9.18	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
426200026	9.55	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
426200027	4.79	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
425170011	6.04	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
425170016	33.20	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
425170022	12.50	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
425190016	48.13	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
426160021	6.25	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
426160024	8.52	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
426200034	3.70	LG HOLDING COMPANY, LLC	SHERMAN RANCH	
425170003	3.48	LG HOLDING COMPANY, LLC	SHERMAN RANCH	437.4
426350009	3.92	LG HOLDING COMPANY, LLC	SHERMAN RANCH	3.9
426020009	49.81	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426020013	7.11	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426030004	3.11	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426030011	2.22	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426030012	28.84	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426030013	32.50	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426040001	19.90	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426040002	35.00	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426050001	44.10	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426050002	50.01	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426050003	19.50	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426050009	20.35	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426071001	1.66	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426071002	2.45	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426071003	2.83	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426081001	2.15	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426081002	0.19	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
426082002	5.00	LG HOLDING COMPANY, LLC	NUTRILITE - NORTH OF RAMONA	
425140006	20.51	LG HOLDING COMPANY, LLC	NUTRILITE - SOUTH OF RAMONA	
425160002	47.62	LG HOLDING COMPANY, LLC	NUTRILITE - SOUTH OF RAMONA	
425160003	10.00	LG HOLDING COMPANY, LLC	NUTRILITE - SOUTH OF RAMONA	
425160004	12.20	LG HOLDING COMPANY, LLC	NUTRILITE - SOUTH OF RAMONA	
425160005	51.20	LG HOLDING COMPANY, LLC	NUTRILITE - SOUTH OF RAMONA	
425160006	20.22	LG HOLDING COMPANY, LLC	NUTRILITE - SOUTH OF RAMONA	
425160007	4.57	LG HOLDING COMPANY, LLC	NUTRILITE - SOUTH OF RAMONA	493.1
426030007	1.06	LG HOLDING COMPANY, LLC	PAULI - NEAR BURN DUMP	1.1
426030017	1.60	LG HOLDING COMPANY, LLC	HANSON - NW CORNER	1.6
426200017	16.26	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	
426200018	18.65	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	
426200022	11.50	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	
426200023	14.28	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	

426200024	27.39	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	
426200031	7.87	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	
426200032	1.77	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	
426200035	11.50	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	
426200036	3.94	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	
426390001	8.50	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	
426390002	8.50	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	
426400015	7.62	LG HOLDING COMPANY, LLC	CANNATA - THOROUGHBRED FARM	137.8
425140001	25.17	LG HOLDING COMPANY, LLC	MCANALLY CHICKEN RANCH	
425140002	7.29	LG HOLDING COMPANY, LLC	MCANALLY CHICKEN RANCH	
425140007	18.94	LG HOLDING COMPANY, LLC	MCANALLY CHICKEN RANCH	
425140010	12.55	LG HOLDING COMPANY, LLC	MCANALLY CHICKEN RANCH	
425140012	27.03	LG HOLDING COMPANY, LLC	MCANALLY CHICKEN RANCH	
425170001	6.24	LG HOLDING COMPANY, LLC	MCANALLY CHICKEN RANCH	
425170014	9.18	LG HOLDING COMPANY, LLC	MCANALLY CHICKEN RANCH	
425170015	6.15	LG HOLDING COMPANY, LLC	MCANALLY CHICKEN RANCH	
425170031	9.90	LG HOLDING COMPANY, LLC	MCANALLY CHICKEN RANCH	
425170033	12.10	LG HOLDING COMPANY, LLC	MCANALLY CHICKEN RANCH	
425170035	20.04	LG HOLDING COMPANY, LLC	MCANALLY CHICKEN RANCH	154.6
425170002	0.48	LG HOLDING COMPANY, LLC	B&A - PART OF SHERMAN RANCH	
425170004	10.01	LG HOLDING COMPANY, LLC	B&A - PART OF SHERMAN RANCH	
425170005	0.04	LG HOLDING COMPANY, LLC	B&A - PART OF SHERMAN RANCH	
425170012	5.65	LG HOLDING COMPANY, LLC	B&A - PART OF SHERMAN RANCH	
425170013	2.86	LG HOLDING COMPANY, LLC	B&A - PART OF SHERMAN RANCH	
425170017	8.00	LG HOLDING COMPANY, LLC	B&A - PART OF SHERMAN RANCH	
425170018	9.47	LG HOLDING COMPANY, LLC	B&A - PART OF SHERMAN RANCH	
425170021	12.57	LG HOLDING COMPANY, LLC	B&A - PART OF SHERMAN RANCH	
426160003	3.31	LG HOLDING COMPANY, LLC	B&A - PART OF SHERMAN RANCH	
426160007	5.41	LG HOLDING COMPANY, LLC	B&A - PART OF SHERMAN RANCH	57.8
425190012	57.40	LG HOLDING COMPANY, LLC	PFEIFER - MOSTLY MOUNTAINS	57.4
425100002	126.59	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425120002	37.54	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425120005	1.04	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425120009	23.21	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425120010	22.38	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425120011	36.28	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425180002	190.93	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230004	19.43	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230005	21.12	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230006	18.68	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230007	18.61	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230008	19.38	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230009	19.56	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230010	19.88	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230011	20.06	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230012	19.51	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230013	19.92	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	

425230014	18.97	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230017	18.04	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230018	19.39	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230020	19.48	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425230021	18.84	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425240001	19.71	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425240002	20.93	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425240003	19.61	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
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425240005	18.67	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425240010	19.89	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425240015	19.46	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425240016	18.83	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425240017	17.48	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425250017	20.12	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	
425250018	19.47	LG HOLDING COMPANY, LLC	LACERTE - MOSTLY MOUNTAINS	943.1
426030022	0.00	COUNTY OF RIVERSIDE	LAKEVIEW BURN DUMP	7.1
425120012	0.26	EASTERN MUNICIPAL WATER DIST	EMWD	
425170028	0.00	EASTERN MUNICIPAL WATER DIST	EMWD	
425230022	0.50	EASTERN MUNICIPAL WATER DIST	EMWD	
425240018	1.93	EASTERN MUNICIPAL WATER DIST	EMWD	3.1
425100015	0.00	MWD	MWD AQUEDUCT	
425120007	0.00	MWD	MWD AQUEDUCT	
425120008	0.00	MWD	MWD AQUEDUCT	
425140008	0.00	MWD	MWD AQUEDUCT	
425170006	0.04	MWD	MWD AQUEDUCT	
425170027	0.00	MWD	MWD AQUEDUCT	
425170029	0.00	MWD	MWD AQUEDUCT	
425170030	0.00	MWD	MWD AQUEDUCT	
425170034	1.76	MWD	MWD AQUEDUCT	
425170036	1.51	MWD	MWD AQUEDUCT	
426160020	1.22	MWD	MWD AQUEDUCT	
426160033	1.52	MWD	MWD AQUEDUCT	
426160034	14.79	MWD	MWD AQUEDUCT	
426160035	2.52	MWD	MWD AQUEDUCT	
426160036	9.55	MWD	MWD AQUEDUCT	99.3
425160008	9.48	MWD	MWD BASIN	
426160031	31.92	MWD	MWD BASIN	41.9
SUB-TOTAL	2,870.04			2738.3
			NORTH OF RAMONA ADJUSTMENT	12.2
			SOUTH OF RAMONA ADJUSTMENT	28.2
TOTAL SPECIFIC PLAN			Based on Record Boundary Data	2778.6

F. Section, Township & Range Description or reference/attach a Legal Description: Sections 7, 8, 9, 10, 16, 17, 18; Township 4S; Range 2W

G. Brief description of the existing environmental setting of the project site and its surroundings: Existing project area is characterized with open space, rural residential and agricultural land uses. Topography of the site ranges from the foothills of the Lakeview Mountains to the edge of the San Jacinto River.

II. APPLICABLE GENERAL PLAN AND ZONING REGULATIONS

A. General Plan Elements/Policies: All relevant General Plan Policies and the projects consistency with such policies will be discussed in the forthcoming EIR**.**

1. **Land Use:** Numerous
2. **Circulation:** Numerous
3. **Multipurpose Open Space:** Numerous
4. **Safety:** Numerous
5. **Noise:** Numerous
6. **Housing:** Numerous
7. **Air Quality:** Numerous

B. General Plan Area Plan(s): Lakeview/Nuevo Area Plan

C. Foundation Component(s): Agriculture, Community Development, Rural Community, Rural and Open Space

D. Land Use Designation(s): RM, OS-C, VLDR-RC, VLDR-CD, RR, AG, AG with CD overlay, LDR-RC, HI, MDR, LI

E. Overlay(s), if any: Community Development Overlay

F. Policy Area(s), if any: None

G. Adjacent and Surrounding Area Plan(s), Foundation Component(s), Land Use Designation(s), and Overlay(s) and Policy Area(s), if any: Agriculture, Community Development, Rural Community, Rural, Conservation and Open Space

H. Adopted Specific Plan Information

1. **Name and Number of Specific Plan, if any:** None
2. **Specific Plan Planning Area, and Policies, if any:** None

I. Existing Zoning: A-1-10, A-2-10, A-P, C-P-S, C-R, M-SC, R-1, R-A, R-A-1, R-A-10, R-A-21/2, R-R

J. Proposed Zoning, if any: Specific Plan

K. Adjacent and Surrounding Zoning: R-A, R-A-10, R-A-1, R-1, C-P-S, A-1-10, N-A-640, A-2-10

III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below (x) would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☒ Aesthetics	☒ Hazards & Hazardous Materials	☒ Public Services
☒ Agriculture Resources	☒ Hydrology/Water Quality	☒ Recreation
☒ Air Quality	☒ Land Use/Planning	☒ Transportation/Traffic
☒ Biological Resources	☐ Mineral Resources	☒ Utilities/Service Systems
☒ Cultural Resources	☒ Noise	☐ Other
☒ Geology/Soils	☒ Population/Housing	☒ Mandatory Findings of Significance

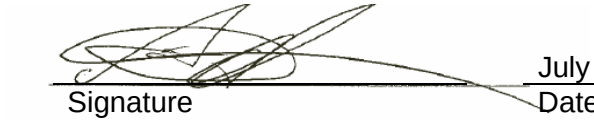
IV. DETERMINATION

On the basis of this initial evaluation:

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS NOT PREPARED
☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project, described in this document, have been made or agreed to by the project proponent. **A MITIGATED NEGATIVE DECLARATION** will be prepared.
☒ I find that the proposed project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS PREPARED
☐ I find that although the proposed project could have a significant effect on the environment **NOTHING FURTHER IS REQUIRED** because all potentially significant effects (a) have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project.
☐ I find that although all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards, some changes or additions are necessary but none of the conditions described in California Code of Regulations, Section 15162 exist. An **ADDENDUM** to a previously-certified EIR or Negative Declaration has been prepared and will be considered by the approving body or bodies.
☐ I find that at least one of the conditions described in California Code of Regulations, Section 15162 exist, but I further find that only minor additions or changes are necessary to make the previous EIR adequately apply to the project in the changed situation; therefore a **SUPPLEMENT TO THE ENVIRONMENTAL IMPACT REPORT** is required that need only contain the information necessary to make the previous EIR adequate for the project as revised.
☐ I find that at least one of the following conditions described in California Code of Regulations, Section 15162, exist and **a SUBSEQUENT ENVIRONMENTAL IMPACT REPORT** is required: (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial

increase in the severity of previously identified significant effects; (2) Substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any the following: (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR or negative declaration; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternatives; or, (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR or negative declaration would substantially reduce one or more significant effects of the project on the environment, but the project proponents decline to adopt the mitigation measures or alternatives.



July 20, 2006

Signature Date

Adam B. Rush For Bob Johnson, Planning Director

Printed Name

V. ENVIRONMENTAL ISSUES ASSESSMENT

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000-21178.1), this Initial Study has been prepared to analyze the proposed project to determine any potential significant impacts upon the environment that would result from construction and implementation of the project. In accordance with California Code of Regulations, Section 15063, this Initial Study is a preliminary analysis prepared by the Lead Agency, the County of Riverside, in consultation with other jurisdictional agencies, to determine whether a Negative Declaration, Mitigated Negative Declaration, or an Environmental Impact Report is required for the proposed project. The purpose of this Initial Study is to inform the decision-makers, affected agencies, and the public of potential environmental impacts associated with the implementation of the proposed project.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS Would the project				
1. Scenic Resources a) Have a substantial effect upon a scenic highway corridor within which it is located?	☒	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view?	☒	☐	☐	☐

Source: Lakeview/Nuevo Area Plan, GIS

a) The Ramona Expressway is a County Eligible Scenic Highway in the Lakeview/Nuevo Area Plan. This highway serves as a major entrance to Lake Perris, one of the County's most important recreation areas. It passes the Bernasconi Hills, the San Jacinto River, the Mystic Lake corridor, the San Jacinto Wildlife area, and agricultural land, and provides a link with the Pines-to-Palms Highway (Highway 74), which is a State Designated Scenic Highway located south of Lakeview Mountains and the project area. The proposed project will be located on either side of the Ramona Expressway and may affect the aesthetic value of this corridor. This issue will be addressed in the forthcoming EIR.

b) The proposed project is located in an area with scenic resources associated with the Lakeview Mountains as well as the San Jacinto River. This issue will be addressed in the forthcoming EIR.

Mitigation: Potential impacts to aesthetics will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

2. Mt. Palomar Observatory a) Interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?	☐	☐	☒	☐

Lakeview/Nuevo Area Plan Figure 6, "Lakeview/Nuevo Area Plan Mt. Palomar Nighttime Lighting Policy"; Ordinance No. 655; Thomas Guide.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Findings of Fact: The proposed project is located within the Mt. Palomar nighttime lighting policy area of the Lakeview/Nuevo Area Plan. Development in the area will be required to adhere to the lighting requirements (i.e., lighting time limits, shielding, type of light bulbs, etc.) specified in County Ordinance No. 655 for standards that are intended to limit light leakage and spillage that may interfere with the operations of the Mount Palomar Observatory. The proposed project will adhere to the standards established in the Countywide Design Guidelines which require hooding, shielding and using low emission lights to avoid light pollution. By complying with Ordinance 655 as well as complying with the Countywide Design Guidelines the project will not result in significant impact to the observatory. Since no adverse impacts to the Mt. Palomar Observatory will occur, this issue will not be addressed further in the forthcoming EIR.

Mitigation: None required.

Monitoring: None required.

3. Other Lighting Issues	☐	☐	☒	☐
a) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				
b) Expose residential property to unacceptable light levels?	☐	☐	☒	☐

Source: Proposed Project

Findings of Fact:

a) The proposed project will introduce new sources of nighttime light and glare into the area from commercial and residential street lighting, park lighting as well as outdoor lighting from individual residences. Spill of light onto surrounding properties, and "night glow" can be reduced by using hoods and other design features on light fixtures used on residential streets. Inclusion of these design features in the project is addressed through standard County conditions of approval, plan check, permit procedures, and code enforcement practices. Potential impacts associated with glare will be reduced to less than significant levels through these standard County practices and procedures; therefore, this issue will not be addressed further in the forthcoming EIR. It should be noted that the forthcoming EIR will have a discussion of wildland interface issues, as stipulate by the Multiple Species Habitat Conservation Plan and lighting as it relates to the MSHCP policies will be addressed in the Biological Resources section.

b) Existing land uses surrounding the project site are generally undeveloped or developed with low density residential uses. Spill of light onto surrounding properties, and "night glow" can be reduced by using hoods and other design features. Inclusion of these design features in the project is addressed through standard County conditions of approval, plan check and permit procedures, and code enforcement practices. Due to the incorporation of appropriate design features to reduce light spill (i.e., shielding and hooding of light fixtures) it is expected that neighboring residential properties will not be exposed to unacceptable light levels and impacts resulting from the project will be less than significant. This issue will not be addressed further in the forthcoming EIR.

Mitigation: None required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Monitoring: Monitoring of this standard condition of approval shall be implemented by the Department of Building and Safety during the Permit process.

AGRICULTURE RESOURCES Would the project				
4. Agriculture a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☒	☐	☐	☐
b) Conflict with existing agricultural use, or a Williamson Act (agricultural preserve) contract (Riv. Co. Agricultural Land Conservation Contract Maps)?	☒	☐	☐	☐
c) Cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625 "Right-to-Farm")?	☒	☐	☐	☐
d) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☒	☐	☐	☐

Source: RCIP General Plan Figure OS-2 "Agricultural Resources"; Ordinance No. 625; IMSA, NRCS

Findings of Fact:

a) Parts of the proposed project site are designated as Prime Farmland, Farmland of Statewide Importance and Farmland of Local Importance by the Farmland Mapping and Monitoring Program. The project area as a whole is being planned for development and may not include the retention of agricultural resources. The loss of this agricultural land will be analyzed and the level of significance will be determined in the forthcoming EIR using the California Department of Conservation Agricultural Land Evaluation and Site Assessment Model (LESA).

b) There currently are no Williamson Act contracts on any of the project parcels. Therefore, the project will not conflict with Williamson Act contracts or preserves. However, the current land uses on most of the project site does consist of existing agricultural uses. Therefore, the issue of conflicting with existing agricultural use will be discussed further in the forthcoming EIR.

c) The proposed project will be developed within 300 feet of agriculturally zoned property. Parcels adjoining the project's northern boundary are currently zoned for heavy agricultural use (A-1-10 and A-2-10). In the context of the County's Right to Farm ordinance (Ordinance 625), potential conflicts between residential and agricultural uses can be expected. Due to the ongoing conversion of agricultural land in the project area pursuant to the RCIP General Plan and the potential conflicts between residential and agricultural uses, the potential level of significance of the project's adjacency to agriculturally zoned land will be addressed in the forthcoming EIR.

d) The proposed project may cause the need to have improvements to Ramona Expressway as well as numerous existing roadways and to provide adequate site access. A transition from agricultural to non-agricultural uses will occur as a result of this project, and is encouraged in the County's land use plans for the area. This issue will be addressed in the forthcoming EIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation: Potential impacts to agricultural resources will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

AIR QUALITY Would the project				
5. Air Quality Impacts a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d) Expose sensitive receptors which are located within 1 mile of the project site to project substantial point source emissions?	☒	☐	☐	☐
e) Involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter?	☒	☐	☐	☐
f) Create objectionable odors affecting a substantial number of people?	☒	☐	☐	☐

Source: Proposed Project; SCAQMD

Findings of Fact:

a) The South Coast Air Quality Management District (SCAQMD) establishes the Air Quality Management Plan (AQMP) for the South Coast Air Basin (SCAB) to achieve national and state air quality standards, in which the proposed project is located. The proposed project may exceed thresholds established in the SCAQMD handbook for air quality standards under the AQMP (adopted August, 2003) through added vehicle emissions both directly through operations and indirectly through additional traffic volumes along surrounding roads. The forthcoming EIR will include a project specific air quality analysis to determine the extent of impacts.

b) The forthcoming EIR will analyze whether the project will contribute substantially to, or violate, any air quality standards.

c) The forthcoming EIR will address the project's potential to contribute to a cumulative increase of criteria pollutants that are considered to be in non-attainment.

d) The proposed project will consist of a mixed use community with residential, commercial, schools, civic uses, and parks. There are no point sources of air emissions, such as a factory or manufacturing facility, which are proposed as part of the project. However, there are existing land uses in the vicinity of the proposed specific plan which may impact future residents of the project. The forthcoming EIR will address existing,

neighboring land uses which may be point sources of emissions and the potential affects on future residents of the project.

e) See answer to d), above. The proposed project will introduce new sensitive receptors to the project site (i.e., residents and students of the proposed project). The forthcoming EIR will address whether or not the air quality impacts from existing facilities will act as a point source emitters and adversely impact future residents.

f) Currently, odors are produced in the area as a result of existing dairies, a chicken ranch, and agricultural and manufacturing operations. Additionally, the project presents the potential for generation of objectionable short-term odors in the form of diesel exhaust from construction vehicles. This issue will be addressed further in the forthcoming EIR.

Mitigation: Potential impacts to air quality will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

BIOLOGICAL RESOURCES Would the project				
6. Wildlife & Vegetation a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?	☒	☐	☐	☐
b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?	☒	☐	☐	☐
c) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Wildlife Service?	☒	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐	☐
e) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?	☒	☐	☐	☐
f) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool,	☒	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☒	☐	☐	☐

Source: MSHCP; Ordinance No. 810.2; USDA; USGS

Findings of Fact:

a) The proposed specific plan is subject to compliance with the adopted Multiple Species Habitat Conservation Plan (MSHCP) for Western Riverside County. The MSHCP will serve as a HCP pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act of 1973, as well as a Natural Communities Conservation Plan (NCCP) under the NCCP Act of 2001. The forthcoming EIR will address the project's relationship and compliance with the MSHCP.

b) Currently the project site is developed with agricultural uses and rural residential/low density residential land uses. However, the project area may support sensitive plant and wildlife species. The forthcoming EIR will address any potential impacts to endangered or threatened species.

c) The forthcoming EIR will address the project's potential impacts to candidate, special-status and sensitive species.

d) The forthcoming EIR will address the project site's potential to act as a wildlife corridor.

e) There are numerous blue-line streams within the project area, as well as the San Jacinto River located along the northwestern project boundary. The forthcoming EIR will address impacts to sensitive riparian habitats.

f) The project site may contain "wetlands" as defined in Section 404 of the Clean Water Act. This issue will be addressed in the forth coming EIR.

g) The forthcoming EIR will address the project's potential to conflict with local policies or ordinances governing biological resources.

Mitigation: Potential impacts to biological resources will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

CULTURAL RESOURCES Would the project				
7. Historic Resources a) Alter or destroy an historic site?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?	☒	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Source: Proposed Project

Findings of Fact:

a) The forthcoming EIR will address the potential impacts associated with historic sites and historic resources from the proposed project.

b) See answer 7 a), above.

Mitigation: Potential impacts to historic resources will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

8. Archaeological Resources a) Alter or destroy an archaeological site.	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.5?	☒	☐	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☒	☐	☐	☐
d) Restrict existing religious or sacred uses within the potential impact area?	☒	☐	☐	☐

Source: Proposed Project

Findings of Fact:
a) Impacts to archaeological resources in the project area will be analyzed in the forthcoming EIR.

b) See answer 8 a), above.

c) Due to the lack of known formal cemeteries and informal family burial plots on site, the project is not expected to impact human remains. Standard County conditions of approval and State Law require work to stop and qualified archaeologists to be consulted in the unlikely event that unknown human remains are uncovered during construction or development activities. Impacts to archaeological resources will be covered in the forthcoming EIR.

d) There are no known or documented existing religious or sacred uses within the proposed project site. However, the forthcoming EIR will determine whether the project will impact religious or sacred sites.

Mitigation: Potential impacts to archaeological resources will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
9. Paleontological Resources a) Directly or indirectly destroy a unique paleontological resource, or site, or unique geologic feature?	☒	☐	☐	☐

Source: RCIP General Plan Figure OS-8 "Paleontological Sensitivity"

Findings of Fact: The project area spans an area determined to have High (Hb) sensitive and Low sensitivity paleontological resources, based upon the RCIP Paleontological Sensitivity Map. The map identifies the sensitivity of lands within Riverside County in relation to the potential for finding paleontological resources. The Low potential category encompasses lands for which previous field surveys and documentation demonstrates as having a low potential for containing significant paleontological resources subject to adverse impacts. Sedimentary rock units with high potential for containing significant non-renewable paleontological resources are those within which vertebrate or significant invertebrate fossils have been determine to be present or likely present. Sensitivity B (Hb) is based on the occurrence of fossils at a specific depth below the surface. This category indicates that fossils are likely to be encountered at or below 4 feet of depth, and may be impacted during excavation by construction activities. Therefore, it is possible that resources could be found during excavation, especially where earthwork disturbs bedrock or non-alluvial formations.

Pursuant to standard County Conditions of Approval, the land divider/permit holder will retain a Paleontologist for consultation and comment on the proposed grading with respect to potential Paleontological impacts. The Paleontologist will monitor excavation activities, identify if excavated materials contain paleontological resources, and will have the authority to stop work if significant resources are uncovered. Based on this, through compliance with standard County conditions of approval, impacts to paleontological resources are considered potentially significant and this topic will be discussed in the forthcoming EIR.

Mitigation: Potential impacts to paleontological resources will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

GEOLOGY AND SOILS Would the project				
10. Alquist-Priolo Earthquake Fault Zone or County Fault Hazard Zones a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death?	☐	☐	☒	☐
b) Be subject to rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☒	☐

Source: RCIP General Plan Figure S-2, "Earthquake Fault Study Zone"; Leighton

Findings of Fact: a and b) Given the project's location in Southern California, and the common occurrence of earthquake faults in the region, the project may experience strong seismic groundshaking from a local or regional earthquake of large magnitude. According to the Riverside

County General Plan the project site is not located within either an Alquist-Priolo Earthquake Fault Zone or a County Fault Hazard Zone. According to a preliminary geotechnical investigation conducted by Leighton and Associates, Inc. in the project area the dominate structural feature within this region is the active San Andreas transform system that consists of several northwest-trending, right-lateral, strike-slip faults. Northeast of the site is the northwest-dipping, active San Jacinto Fault Zone, a major northwest-trending structural fracture near parallel to the San Andreas fault. The San Jacinto Fault is located approximately 3 miles northeast of the site near the base of the San Jacinto Mountains. The northeast–dipping Casa Loma fault is approximately 2 miles east of the site at the base of the Badlands. Due to the distance to these faults, the risk of surface rupture of an earthquake fault is not expected to be a significant impact from development of the project site. Therefore risk of rupture from earthquake faults will not be discussed further in the forthcoming EIR.

Mitigation: None required.

Monitoring: None required.

11. Liquefaction Potential Zone a) Be subject to seismic-related ground failure, including liquefaction?	☐	☐	☒	☐

Source: Lakeview/Nuevo Area Plan Figure 12, “Seismic Hazards”; Leighton

Findings of Fact: According to the Lakeview/Nuevo Area Plan, the project site is located on sediments with deep groundwater and low to moderate liquefaction susceptibility. A portion of the project site is located on sediments with a low to moderate susceptibility of liquefaction although no groundwater data has been collected in these areas.

However, a Preliminary Geotechnical Investigation performed by Leighton and Associates, Inc. within the project area, determined that the potential for liquefaction and associated adverse effects within the site is low. Although the onsite sediments have been identified as susceptible to liquefaction, the likelihood of the groundwater (greater than 200 feet deep in May 2003) returning to historic shallow depths is very low. Therefore, impacts are considered less than significant and this topic will not be discussed further in the forthcoming EIR.

Mitigation: None required.

Monitoring: None required.

12. Ground-shaking Zone Be subject to strong seismic ground shaking?	☐	☐	☒	☐

Source: UBC 1997 Fig. 16.2; RCIP General Plan Figure S-1, “Mapped Faulting in Riverside County”

Findings of Fact: Given the project’s location in Southern California, and the common occurrence of earthquake faults in the region, the project may experience strong seismic groundshaking from a local or regional earthquake of large magnitude. However, the project will follow engineering and design parameters in accordance with the most recent edition of the UBC and/or the Structural Engineers Association of California parameters, as required in standard County conditions of approval. Meeting UBC codes will address issues such as how houses are constructed, how deep foundations have to

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

be, how close to hillsides the houses can be etc. Therefore, groundshaking events are expected to cause less than significant impacts to the project, as required in standard County conditions of approval and will not be addressed further in the forthcoming EIR.

Mitigation: None required.

Monitoring: None required.

13. Landslide Risk a) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazards?	☒	☐	☐	☐

Source: Lakeview/Nuevo Area Plan Figure 13, "Steep Slopes" and Figure 14, "Slope Instability"

Findings of Fact: The south western portion of the project site contains foothills and steep slopes of the Lakeview Mountains. This area contains slope angles of 15-25%, 25-30% and 30% and greater. The base of the foothills or perimeter slopes are designated as having a low to locally moderate susceptibility to seismically induced landslides and rockfalls whereas the more internal slopes of the Lakeview Mountains are designated as having high susceptibility to seismically induced landslides and rockfalls. Due to the steep hillsides located within and bordering the south western project area, landslide risks will be addressed in the forthcoming EIR.

Mitigation: Potential impacts to landslide risk will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

14. Ground Subsidence a) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in ground subsidence?	☒	☐	☐	☐

Source: RCIP General Plan Fig S-7 "Documented Subsidence Areas"; Leighton

Findings of Fact: As outlined in a preliminary geotechnical investigation conducted in the project area, regional ground subsidence has been identified as an issue of concern in the San Jacinto Valley. Subsidence-related ground fissures are present approximately one mile northeast of the site. Subsidence has been documented across the majority of the eastern portion of the site, however, no ground fissures have been documented onsite. The eastern extent of the project site contains an area susceptible to ground subsidence, as outlined in Figure S-7 of the RCIP General Plan. This topic will be addressed further in the forthcoming EIR.

Mitigation: Potential impacts to ground subsidence risk will be evaluated in the forthcoming EIR for this project.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

15. Other Geologic Hazards a) Be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard?	☒	☐	☐	☐

Source: RCIP General Plan Figure S-10 "Dam Failure Inundation Zones"; Lakeview/Nuevo Area Plan

Findings of Fact: There are no volcanoes nor bodies of water which would create a seiche hazard in the proposed project site vicinity. The northwestern portion of the project site is located within a Dam Hazard Zone related to the Lake Perris Dam (approximately 1 mile northwest of the project site). The Dam Hazard Zone in the area follows the San Jacinto River located generally northwest of the project site but crossing the northeast corner of the project site. Failure of the Lake Perris Dam may cause flooding along the 100-year floodplain and into the project site. The south western portion of the project site contains steep slopes that could generate a mudflow. Mudflow risks and risk of dam failure will be addressed in the forthcoming EIR.

Mitigation: Potential impacts to dam failure will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

16. Slopes a) Change topography or ground surface relief features?	☒	☐	☐	☐
b) Create cut or fill slopes greater than 2:1 or higher than 10 feet?	☒	☐	☐	☐
c) Result in grading that affects or negates subsurface sewage disposal systems?	☐	☐	☒	☐

Source: Lakeview/Nuevo Area Plan Figure 14, "Slope Instability"

Findings of Fact:

a) The proposed project will change or modify the topography of the existing site. This issue will be addressed in the forthcoming EIR.

b) The proposed project site development may involve the formation of cut or fill slopes greater than 2:1 or higher than 10 feet. Therefore, this issue will be addressed further in the forthcoming EIR.

c) Current rural residential structures on the project site are reported to have active septic systems, or subsurface sewage disposal systems. Prior to grading in areas of these septic systems, any residual subsurface sewage systems will be abandoned in accordance with Riverside County Environmental Health Department and Riverside County Building and Safety Department standards. Abandonment procedure includes excavation of sewage tanks, excavation of leach fields or leach lines. By following county standards and requirements for the septic removals, it is not expected that project site grading will impact subsurface sewage systems. Therefore effects to subsurface sewage disposal systems will not be further addressed in the forthcoming EIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation: Potential impacts related to slopes will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

17. Soils	☒	☐	☐	☐
a) Result in substantial soil erosion or the loss of topsoil?				
b) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☒	☐	☐	☐

Source: Proposed Project; Leighton

Findings of Fact:
a) Project development will require extensive grading operations including excavation and fill throughout the project site. The loss of topsoil and substantial soil erosion from the proposed project is considered a potential significant impact. This topic will be addressed further in the forthcoming EIR.

b) According to a preliminary Geotechnical Report prepared by Leighton and Associates, Inc. in the project area, earth materials present at finish pad grade are expected to vary from silty sands to sandy clays. Laboratory tests results and visual soil classification indicate that the soils in the project area have varying expansion potential ranging from low to high. The forthcoming EIR will address the projects efforts to reduce this potentially significant impact.

Mitigation: Potential impacts related to unstable soils will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

18. Erosion	☒	☐	☐	☐
a) Change deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake?				
b) Result in any increase in water erosion either on or off site?	☒	☐	☐	☐

Source: USGS; Proposed Project

Findings of Fact:
a) Project implementation will involve grading, excavation, trenching, temporary stockpiling and construction work in areas of varying terrain. The topography of the project site drains to the San Jacinto River. Potential impacts associated with siltation, erosion or deposition to the San Jacinto River will be addressed in the forthcoming EIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

b) Project implementation will result in the increase of impervious surfaces, which will increase storm water runoff from the project site and could result in additional water erosion to the San Jacinto River. Impacts associated with water erosion on and off-site will be addressed in the forthcoming EIR.

Mitigation: Potential impacts from erosion will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

19. Wind Erosion and Blowsand from project either on or off site. a) Be impacted by or result in an increase in wind erosion and blowsand, either on or off site?	☐	☐	☒	☐

Source: RCIP Fig. S-8, "Wind Erosion Susceptibility Map"; Ordinance No. 484

Findings of Fact: The project site is not located within the boundaries of Riverside County's Agricultural Dust Control Areas, as established by Ordinance No. 484. The Ordinance prohibits the disturbance of land without sufficient protection to prevent the soil from being eroded by wind, and blown onto a public road(s) or other public or private property.

The project site is located within an area with a Moderate Wind Erodibility Rating, as outlined in the Wind Erosion Susceptibility Map of the Safety Element of the RCIP General Plan.

All grading on the project site will be required by existing regulations, such as the NPDES construction storm water permit, to use Best Management Practices (BMPs) to prevent wind erosion. Examples of BMPs incorporated on the site could be frequent watering and use of soil stabilizers. Use of these BMPs will reduce to less than significant any wind erosion and/or blowsand impacts caused by project implementation. Therefore, wind erosion and blowsand will not be addressed further in the forthcoming EIR.

Mitigation: None required.

Monitoring: None required.

HAZARDS AND HAZARDOUS MATERIALS Would the project				
20. Hazards and Hazardous Materials a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?	☒	☐	☐	☐
d) Emit hazardous emissions or handle hazardous or	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				
e) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☒	☐	☐	☐

Source: Project Proposal; LOR 1, 2, 3, 4, 5, 6

Findings of Fact:

a) The proposed project does not include specific land uses which would constitute the need for significant amounts of transport, use or disposal of hazardous materials which would cause a significant hazard to people or the environment. The residential, commercial, civic, schools and parks proposed in the specific plan are not generally considered generator or users of large quantities of hazardous materials. This issue is considered less than significant and will not be addressed in the forthcoming EIR.

b) See response to item 20a.

c) The proposed project includes adequate access for emergency response vehicles and personnel, as developed in consultation with County Fire personnel. In order to determine the full extent of impacts to emergency response plans, this topic will be addressed further in the forthcoming EIR.

d) See response to item 20a. There are two schools located southwest of the project site within one-mile of the project boundary. Nuview Bridge Academy (High School) and Mountain Shadows Middle School are located south of the corner of Reservoir Ave and 9th Street. Nuview Elementary, preschool and District Administrative Offices are located on Lakeview Avenue south of 10th Street. The proposed project includes several proposed school sites within the specific plan, however there are no uses proposed by the project that would be emitters of hazardous materials. The forthcoming EIR will not address the potential impacts to existing and proposed schools in relation to potentially hazardous materials. Impacts are considered less than significant.

e) An environmental regulatory database search was performed within the project area and generally covers the western half of the project site. These environmental regulatory database searches produced regulatory agency lists included in Government Code Section 65962.5 (CORTESE List), and revealed that the proposed project site encompasses sites that are included on lists or in databases of hazardous materials sites. Additionally, the project boundaries include a closed County-owned dump. The forthcoming EIR will address the potential for the project site to be listed on an environmental regulatory database and the project's relationship to the dump.

Mitigation: Potential impacts from hazardous materials will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
21. Airports	☐	☐	☐	☒
a) Result in an inconsistency with an Airport Master Plan?				
b) Require review by the Airport Land Use Commission?	☐	☐	☐	☒
c) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
d) For a project within the vicinity of a private airstrip, or heliport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

Source: Thomas Guide; Lakeview/Nuevo Area Plan Figure 4, "Policy Areas"

Findings of Fact:
a, b, c, & d) The proposed project site is not located within an airport influence area. The closest airports to the project site are the March Air Reserve Base (approximately 6.5 miles west of the project site) and the Hemet-Ryan Airport (approximately 6-7 miles south of the project site), both located in Riverside County, to the northwest and southwest, respectively. The proposed project is not located within the March Air Reserve Base Influence Area or the Hemet – Ryan Influence Area as outlined in the Lakeview/Nuevo Area Plan. Given the distance from each of these airports, the proposed project would not be subject to Airport Land Use Commission review. The project site is not within two miles of a public airport or private airstrip and is not located under the flight path of planes traveling to/from airports further from the site. Based on this information, the project will have no impacts relative to airports and will not be addressed in the forthcoming EIR.

Mitigation: None required.

Monitoring: None required.

22. Hazardous Fire Area	☒	☐	☐	☐
a) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				

Source: Lakeview/Nuevo Area Plan Figure 11, "Wildfire Susceptibility"

Findings of Fact: The southeastern portion of the project site is located within a designated hazardous fire area, within a "High" susceptibility of wildfire zone of the Lakeview/Nuevo Area Plan. Foothills of the Lakeview Mountains make up and/or border the southeastern portion of the project area. Additionally, even though the General Plan does not show the San Jacinto Wildlife area as being a hazardous fire area, wildfires have been known to breakout, and because this area is an open area and will remain so, it could pose a threat to the proposed project. This issue will be discussed in the forthcoming EIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation: Potential risk associated with wildland fires will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

HYDROLOGY AND WATER QUALITY Would the project				
23. Water Quality Impacts a) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☒	☐	☐	☐
b) Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☐
c) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☒	☐	☐	☐
d) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☒	☐	☐	☐
e) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☒	☐	☐	☐
f) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☒	☐	☐	☐
g) Otherwise substantially degrade water quality?	☒	☐	☐	☐
h) Include new or retrofitted stormwater Treatment Control Best Management Practices (BMPs) (e.g., water quality treatment basins, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g. increased vectors and odors)?	☒	☐	☐	☐

Source: Order 99-08-DWQ; Supplement A; Lakeview/Nuevo Area Plan Figure 10, "Flood Hazards"; USGS, FEMA

Findings of Fact:

a) The proposed project is located in an area with mapped blue-line streams and will involve the alteration of current drainage patterns. This issue will be addressed in the forthcoming EIR.

b) The forthcoming EIR will address impacts to water quality standards and/or waste discharge requirements as a result of the project.

c) The forthcoming EIR will address potential impacts to groundwater and how the proposed Specific Plan will impact the basin.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

d) The proposed project development will involve construction of new stormwater runoff facilities. Currently, the site is not equipped with a formal stormwater system. Stormwater currently sheet flows and migrates offsite to the San Jacinto River or collects and percolates naturally. The forthcoming EIR will address the proposed storm drain system.

e) The northwest portion of the specific plan site encroaches into a FEMA designated "AO" Zone (which covers areas of 100-year shallow flooding where depths are between one and three feet). This issue will be discussed in the forthcoming EIR.

f) According to the Lakeview/Nuevo Plan, the specific plan boundaries will be partially located in a FEMA designated "AO" zone, which documents areas subject to shallow flooding of depths ranging from one foot to three feet. Within this 100-year zone area, there may be structures associated with the proposed park uses as well as homes in the area to the southwest of the project site. Therefore, the project could create impacts by placing structures in a 100-year flood hazard area which in turn would impede or redirect flows. This topic will be addressed further in the forthcoming EIR.

g) The proposed project construction and grading activities are considered potentially significant short-term impacts to overall water quality. The forthcoming EIR will address specific water quality standards so that appropriate mitigation can be determined.

h) The forthcoming EIR will discuss the Treatment BMPs proposed by the project and discuss whether or not the chosen BMPs in and of themselves represent an environmental risk. The forthcoming EIR will address this issue.

Mitigation: Potential impacts related to hydrology and water quality will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

24. Floodplains

Degree of Suitability in 100-Year Floodplains. As indicated below, the appropriate Degree of Suitability has been checked.

NA - Not Applicable ☒ U - Generally Unsuitable ☐ R - Restricted ☐

a) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☒	☐	☐	☐
b) Changes in absorption rates or the rate and amount of surface runoff?	☒	☐	☐	☐
c) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam (Dam Inundation Area)?	☒	☐	☐	☐
d) Changes in the amount of surface water in any water body?	☒	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Source: Lakeview/Nuevo Area Plan, Figure 10, "Flood Hazards"; USGS

Findings of Fact:
a) The proposed project is located in an area with mapped blue-line streams and will involve the alteration of current drainage patterns. This issue will be addressed in the forthcoming EIR.

b) Project development would increase the amount of impervious surface area by covering land that is currently pervious, thereby increasing surface water runoff and reducing absorption rates. Although through the project's compliance with the Water Quality Management Plan, infiltration will be maximized wherever possible, the project proposes to discharge some surface water runoff into the 100-year floodplain of the San Jacinto River. The forthcoming EIR will address the amount of surface runoff from the proposed project into the storm drain system and the affects to the San Jacinto River.

c) The northwestern portion of the project site is located within a Dam Hazard Zone related to the Lake Perris Dam. The Dam Hazard Zone in the area follows the San Jacinto River located generally west of the project site but which crosses the northwestern corner of the project site. Failure of the Lake Perris Dam may cause flooding along the 100-year floodplain. The forthcoming EIR will address this issue.

d) The closest water body in proximity to the project site is the San Jacinto River, located in close proximity to the western project boundary. The proposed project will divert and discharge stormwater and surface water into the 100-year floodplain of the San Jacinto River. Increased surface water into the proposed storm drain system will ultimately increase the amount of surface water into the 100-year floodplain of the San Jacinto River, therefore, this issue will be addressed in the forthcoming EIR.

Mitigation: Potential impacts related to floodplains will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

LAND USE/PLANNING Would the project				
25. Land Use	☒	☐	☐	☐
a) Result in a substantial alteration of the present or planned land use of an area?				
b) Affect land use within a city sphere of influence and/or within adjacent city or county boundaries?	☒	☐	☐	☐

Source: GIS; Lakeview/Nuevo Area Plan, Land Use Plan

Findings of Fact:
a) Presently the project site area is generally characterized by agriculture, open space and rural residential land uses. The adjacent land uses to the proposed project site includes an existing industrial/manufacturing land use operated by Nutrilite. The proposed project site area is currently designated under the General Plan with residential, rural residential, commercial, light industrial, open space and agriculture land uses. A community development overlay also exists over much of the land designated for agricultural uses within the specific plan boundaries. The proposed project includes a General Plan Amendment (see General Plan Amendment description above) to have the proposed

land uses consistent with the planned land uses in the proposed specific plan. The forthcoming EIR will address the existing and planned land use consistency.

b) The project site is not within or adjacent to a designated city sphere of influence. The eastern extent of the proposed project however is bounded by the City of San Jacinto. The proposed project would affect land use adjacent to the City of San Jacinto boundary. This issue will be addressed in the forthcoming EIR.

Mitigation: Potential impacts related to land use consistency will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

26. Planning	☒	☐	☐	☐
a) Be consistent with the site's existing or proposed zoning?				
b) Be compatible with existing surrounding zoning?	☒	☐	☐	☐
c) Be compatible with existing and planned surrounding land uses?	☒	☐	☐	☐
d) Be consistent with the land use designations and policies of the Comprehensive General Plan (including those of any applicable Specific Plan)?	☒	☐	☐	☐
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	☒	☐	☐	☐

Source: GIS, Lakeview/Nuevo Area Plan

Findings of Fact:
a) The project site is currently zoned and surrounded by the following zones: A-2-10, A-1-10, A-P, C-P-S, C-R, M-SC, R-1, R-A, R-A-1, R-A-10, R-A-21/2, R-R zones. The proposed specific plan project's consistency with existing and proposed zoning will be addressed further in the forthcoming EIR.

b) See a), above.

c) Presently the project site area is generally characterized by agriculture, open space and rural residential land uses. The adjacent land uses to the proposed project site includes an existing industrial/manufacturing land use operated by Nutrilite. The proposed project site area is currently designated under the General Plan with residential, rural residential, commercial, light industrial, open space and agriculture land uses. A community development overlay also exists over much of the land designated for agricultural uses within the specific plan boundaries. The proposed project includes a General Plan Amendment (see General Plan Amendment description above)to have the proposed land uses consistent with the planned land uses. The forthcoming EIR will address the existing and planned land use consistency.

d) The proposed project requires a General Plan Amendment to make it consistent with the RCIP General Plan. This issue will be addressed in the forthcoming EIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

e) The project site is located adjacent to communities of Lakeview, Nuevo, and Juniper Flats. The forthcoming EIR will address the potential impacts associated with proposed project uses in close proximity to the existing rural communities.

Mitigation: Potential impacts to land use incompatibilities will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

MINERAL RESOURCES Would the project				
27. Mineral Resources	☐	☐	☒	☐
a) Result in the loss of availability of a known mineral resource in an area classified or designated by the State that would be of value to the region or the residents of the State?				
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐
c) Be an incompatible land use located adjacent to a State classified or designated area or existing surface mine?	☐	☐	☐	☒
d) Expose people or property to hazards from proposed, existing or abandoned quarries or mines?	☐	☐	☒	☐

Source: RCIP Fig. OS-5, "Mineral Resources Area", USGS

Findings of Fact:

a) The project site may contain a known mineral resource but is not located within an area that has been classified or designated as a mineral resource area by the State Board of Mining and Geology. According to the RCIP General Plan, there are no mines or mineral resource areas located near the project site. There are no known active mines on or near the project site. Therefore, no impacts are expected by the project to mineral resources and this topic will not be discussed further in the forthcoming EIR.

b) The project site is not located within an area of locally-important mineral resource recovery delineated in the RCIP General Plan. The project site is not located within an area that has been classified or designated as a mineral resource area by the RCIP General Plan. Therefore, no impacts are expected by the project to mineral resources and this topic will not be discussed further in the forthcoming EIR.

c) The project site will not be an incompatible land use to a State classified or designated area or existing surface mine. According to the RCIP General Plan, there are no mines or mineral resource areas located near the project site. Therefore, no impacts are expected by the project to mineral resources and this topic will not be discussed further in the forthcoming EIR.

d) The project site is not located in an area of proposed or existing quarries or mines but may contain an abandoned quarry. The abandoned quarry is located along a slope within a proposed

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

conservation area, and is not a "hole", but rather a depression along the slope. Given the fact that the depression of the quarry would not pose any greater threat to future residents than the hillside itself, less than significant impacts are expected regarding mineral resource hazards and this topic will not be discussed further in the forthcoming EIR.

Mitigation: None required.

Monitoring: None required.

NOISE Would the project result in

Definitions for Noise Acceptability Ratings

Where indicated below, the appropriate Noise Acceptability Rating(s) has been checked.

NA - Not Applicable A - Generally Acceptable B - Conditionally Acceptable
C - Generally Unacceptable D - Land Use Discouraged

28. Airport Noise a) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project expose people residing or working in the project area to excessive noise levels? NA ☒ A ☐ B ☐ C ☐ D ☐	☐	☐	☐	☒
b) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? NA ☒ A ☐ B ☐ C ☐ D ☐	☐	☐	☐	☒

Source: RCIP General Plan Figure S-19, "Airport Locations"

Findings of Fact:

a) The proposed project site is not located within an airport land use plan or within two miles of a public airport that would adversely impact people residing or working in the project area. The nearest airport is the March Air Reserve Base located approximately 6.5 miles to the northwest. Therefore, the project will not expose people residing or working in the project area to excessive noise levels from airplanes, and this topic will not be addressed further in the forthcoming EIR.

b) The project site is not located within the vicinity of a private airstrip and therefore would not expose people residing or working in the project area to excessive noise levels. Therefore, the project site will not expose people residing or working in the project area to excessive noise levels from a private airstrip.

Mitigation: None required.

Monitoring: None required.

29. Railroad Noise NA ☐ A ☒ B ☐ C ☐ D ☐	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Source: RCIP Figure C-1 "Circulation Plan" and Figure S-21 "Rail Facilities, Available Water, Oil and Natural Gas Pipeline Inventory Data"

Findings of Fact: There are no rail lines located in the project area. Therefore, railroad noise is considered to not impact the project site and will not be discussed further in the forthcoming EIR.

Mitigation: None required.

Monitoring: None required.

30. Highway Noise NA ☐ A ☐ B ☐ C ☒ D ☐	☒	☐	☐	☐

Source: RCIP General Plan Figure, C-1 "Circulation Plan"; RCIP General Plan Table N

Findings of Fact: Interstate 215 is located over 7 miles to the west of the project site so it is sufficiently distant to not generate noise that would affect the proposed project. The Ramona Expressway bisects the project site. Although not currently designated a "highway" the noise impacts from the Ramona Expressway to the proposed project will be addressed in the forthcoming EIR.

Mitigation: Potential impacts from noise associated with the Ramona Expressway will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

31. Other Noise NA ☒ A ☐ B ☐ C ☐ D ☐	☐	☐	☐	☒

Source: RCIP General Plan Figure C-1 "Circulation Plan" and Table N-1 "Land Use Compatibility for Community Noise Exposure"

Findings of Fact: There are no other unique noise sources in the project area that would impact the proposed project.

Mitigation: None Required.

Monitoring: None Required.

32. Noise Effects on or by the Project	☒	☐	☐	☐
a) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
b) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
c) Exposure of persons to or generation of noise levels				

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				
d) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	☒	☐	☐	☐

Source: RCIP General Plan Table N-1 "Land Use Compatibility for Community Noise Exposure", Lakeview/Nuevo Area Plan

Findings of Fact:

a) The increased traffic and residential density associated with the proposed residential development presents the potential for elevated ambient noise levels within the project vicinity. Ambient noise levels for the project vicinity are unknown at this time. The forthcoming EIR will address potential impacts.

b) Due to construction activities, the proposed project site may have temporary or periodic increases in ambient noise levels in the project area. It is estimated that there could be significant short-term noise impacts during construction and incremental long-term impacts from project occupancy, primarily due to vehicular noise. It is unknown at this time what the ambient noise levels are for the project vicinity. The forthcoming EIR will include a project specific noise analysis and determine the appropriate mitigation measures.

c) See Item 32a, above.

d) The proposed project site operations will not generate excessive groundborne vibrations or groundborne noise levels during normal operations. There are no existing sources of excessive groundborne vibrations or noise, such as trains, located within the project area that development of the proposed project would expose persons to. Groundborne vibrations may be generated infrequently by use of heavy construction machinery. Although the groundborne vibrations may be considered a significant impact to people, as any vibrations from construction would be temporary and infrequent, it is expected that vibrations would affect certain biological resources in the vicinity of the project, and the forthcoming EIR will provide a discussion of such impacts as well as proposed mitigation measures which would address this impact. Therefore, this issue will be addressed further in the forthcoming EIR.

Mitigation: Potential impacts upon area land uses due to temporary and/or permanent increased noise levels will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

POPULATION AND HOUSING Would the project				
33. Housing	☐	☐	☒	☐
a) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				
b) Create a demand for additional housing, particularly	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
housing affordable to households earning 80% or less of the County's median income?				
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
d) Affect a County Redevelopment Project Area?	☐	☐	☐	☒
e) Cumulatively exceed official regional or local population projections?	☒	☐	☐	☐
f) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☒	☐	☐	☐

Source: EDA, Proposed Project

Findings of Fact:

a) The proposed project development will not displace substantial numbers of existing housing, which would require the construction of replacement housing. The proposed specific plan is primarily located on unoccupied property. Impacts are considered less than significant and will not be addressed further in the forthcoming EIR.

b) The proposed project will result in the construction of over 11,000 additional residential dwelling units within the Lakeview/Nuevo area. Rather than creating a demand for additional housing, the project will be augmenting the area's housing supply. This issue will not be addressed in the forthcoming EIR.

c) See Item 33a, above.

d) The project site is partially located adjacent to a Riverside County Redevelopment Project Area known as Area 5-1968, Lakeview Community Sub-Area. The Lakeview Community Sub-Area is comprised of about 100 acres, located at the Ramona Expressway and Hansen Avenue. The redevelopment area primarily contains commercial uses along Ramona Expressway, but also includes a few residential uses and some agriculturally based industry. Vacant and underutilized properties are scattered among developed properties. The Redevelopment Agency public improvement objectives for this sub-area include street reconstruction traffic signals, school facilities, streetlights, library, and flood control improvements. In addition, the Redevelopment Agency will be taking part in programs to upgrade and increase the number of housing units for low-and moderate-income families in the vicinity. The redevelopment project will have a positive impact on the Lakeview area.

Development of the Villages of Lakeview Specific Plan located adjacent to the Lakeview Community Sub-Area is planned as residential and is consistent with the types of development encouraged by the redevelopment plan as well as with the RCIP General Plan. Development of The Villages of Lake View may encourage development within the redevelopment area. Therefore, there are no adverse impacts from the project on the Redevelopment Area and the forthcoming EIR will not address this issue.

e) The proposed project will result in an estimated population increase in the local area of approximately 34,050 persons (based on a simple 3 people per 11,350 dwelling units). This increase,

when combined with population increases resulting from the approval of other residential projects in the surrounding area has the potential to cumulatively exceed official population projections. The significance of these cumulative population increases will be addressed in the forthcoming EIR.

f) The proposed project will induce population growth since it is a residential project. This issue will be addressed in the forthcoming EIR.

Mitigation: Potential impacts to growth inducement will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

PUBLIC SERVICES Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

34. Fire Services	☒	☐	☐	☐

Source: RCIP General Plan Figure S-13 "Inventory of Emergency Response Facilities", Ordinance 659.6

Findings of Fact: Fire services will be provided by the Riverside County Fire Department, Since the project's land use plan proposes development in an area that currently is undeveloped, it will impact existing fire services and possibly create the need for additional fire services in the project area. The forthcoming EIR will address impacts to fire services.

Mitigation: Potential impacts to fire services will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

35. Sheriff Services	☒	☐	☐	☐

Source: RCIP General Plan Figure S-13 "Inventory of Emergency Response Facilities", Ordinance 659.6

Findings of Fact: Sheriff services will be provided by the Riverside County Sheriff's Department, Since the project's land use plan proposes development in an area that currently is undeveloped, it will impact existing sheriff services and possibly create the need for additional sheriff services in the project area. The forthcoming EIR will address impacts to sheriff services.

Mitigation: Potential impacts to sheriff services will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
36. Schools	☒	☐	☐	☐

Source: GIS, RCIP General Plan Figure S-14 "Inventory of School Locations"

Findings of Fact: The project site is located within the boundaries of the Nuview Union School District and the Perris Union High School District. Since the proposed project is residential and future students will be attending Nuview Union School District schools as well as Perris Union High School District schools. This topic will be discussed in the forthcoming EIR.

Mitigation: Potential impacts to schools will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

37. Libraries	☒	☐	☐	☐

Source: Ordinance No. 659.6

Findings of Fact: Library services are provided by the Riverside County Public Library System. The proposed project has the ability to impact existing library services. The forthcoming EIR will address the impacts to libraries as a result of the proposed project.

Mitigation: Potential impacts to libraries will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR

38. Health Services	☒	☐	☐	☐

Source: Project Proposal

Findings of Fact: Introduction of approximately 34,050 persons (based on a simple 3.0 people per 11,350 dwelling units) could have significant impacts to health services. This issue will be addressed in the forthcoming EIR.

Mitigation: Potential impacts to health services will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

RECREATION				
39. Parks and Recreation	☒	☐	☐	☐
a) Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				
b) Would the project include the use of existing neighborhood or regional parks or other recreational	☒	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
facilities such that substantial physical deterioration of the facility would occur or be accelerated?				
c) Is the project located within a C.S.A. or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?	☒	☐	☐	☐

Source: RCIP General Plan Figure OS-3 "Parks, Forest, and Recreation Areas", Ordinance No. 460, Thomas Guide

Findings of Fact:
a) The project site is located within C.S.A. 146A and the sphere of influence of Valley-Wide Recreation & Park District. The project includes approximately 200 acres of park and recreational areas. The development of these areas will be analyzed as part of the further in the forthcoming EIR.

b) The project site is located within the vicinity of one state park, the Lake Perris State Recreation Area, and two regional county parks located east of the project site, Maze Stone Park and the San Jacinto River Park. Although the development of the project site will not physically interfere with these recreational facilities, development of the project site may incrementally increase the use of the park facilities by placing more people in the area. This topic will be addressed in the forthcoming EIR.

c) The project site is located within C.S.A. 146A and within the sphere of influence of Valley Wide Recreation and Park District. Under Section 10.35 of Ordinance No. 460 (implementing Quimby Act) the developer is required to provide local park facilities or fees in lieu thereof. The forthcoming EIR will address whether the project will pay Quimby fees or provide local park facilities.

Mitigation: The physical effects on the environment from construction of new parks will be addressed in various sections of the forthcoming EIR. Impacts to existing parks will be addressed in the forthcoming EIR.

Monitoring: Mitigation monitoring shall be determined after appropriate mitigation measures have been established in the forthcoming EIR.

40. Recreational Trails	☒	☐	☐	☐

Source: Lakeview/Nuevo Area Plan Figure 8, "Trails and Bikeway System"

Findings of Fact: The Lakeview/Nuevo Area Plan designates Community Trails throughout the proposed project site. However, the Area Plan does not have any designated Regional Trails within the project area. The proposed project includes a General Plan Amendment to designate various proposed trails as Regional Trails. This issue will be addressed in the forthcoming EIR

Mitigation: Potential impacts to recreational trails will be evaluated in the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

TRANSPORTATION/TRAFFIC Would the project				
41. Circulation	☒	☐	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				
b) Result in inadequate parking capacity?	☐	☐	☐	☒
c) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated road or highways?	☒	☐	☐	☐
d) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
e) Alter waterborne, rail or air traffic?	☐	☐	☐	☒
f) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☒	☐
g) Cause an effect upon, or a need for new or altered maintenance of roads?	☒	☐	☐	☐
h) Cause an effect upon circulation during the project's construction?	☒	☐	☐	☐
i) Result in inadequate emergency access or access to nearby uses?	☐	☐	☐	☒
j) Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☒	☐

Source: Project proposal, Lakeview/Nuevo Area Plan Figure 7 "Circulation Plan", Ordinance No. 348, RTA

Findings of Fact:

a) Development of the proposed project will increase traffic volumes on area roadways including Ramona Expressway, Lakeview Avenue, 5th Street and Nuevo Roads. Results of the project-specific traffic study will be analyzed and included as part of the forthcoming EIR to assess impacts of project site development on roadway capacity and intersection congestion in the area.

b) The proposed specific plan will include parking standards in accordance with County requirements for the residential and commercial, therefore, no adverse impacts on parking are anticipated. This issue will not be addressed in the forthcoming EIR.

c) The proposed project site may impact County-established levels of service standards. The forthcoming EIR will include a project specific traffic analysis that will address levels of service.

d) The closest airport is March Air Reserve Base which is located more than 6.5 miles from the site and the site is not located beneath the flight pattern. The proposed project does not involve air traffic or local airports and therefore, air traffic will not be addressed in the forthcoming EIR.

e) The proposed project site development will not alter waterborne, rail or air traffic, therefore, no impacts will result to waterborne, rail or air traffic, and these issues will not be addressed in the forthcoming EIR.

f) The proposed project development involves the conversion of rural residential and agricultural land uses to a planned community with a mix of residential and commercial land uses. The specific plan will include a circulation system for the new roads that are proposed to be constructed as part of the project. Roads will be designed to satisfy County standards. The roads in the project vicinity are generally straight and do not have design feature hazards such as curves such that the project would substantially increase these hazards. Therefore, although the EIR will analyze the project's impact on circulation and identify proposed circulation system improvements, the specific issue of existing hazardous design features will not be addressed in the forthcoming EIR.

g). Development of the proposed project will result in the need for additional road maintenance than would be needed without the project. The forthcoming EIR will discuss the project's need for new or altered maintenance of roads.

h) The proposed project will include construction of improvements on various roadways. The forthcoming EIR will address circulation patterns during project construction.

i) Development of the proposed project site will improve emergency access by completing improved road segments in the project area. The project site will be developed per County codes, standard conditions of approval, and permits related to emergency access. This issue will not be addressed in the forthcoming EIR.

j) The proposed project will coordinate with RTA to plan for future bus turnouts and will be designed to include pathways, bikeways and trails linking the entire project area, thereby encouraging alternate methods of transportation. The project is designed to not conflict with any adopted policies supporting alternative transportation because it is being designed to promote biking, busing and other forms of alternative transportation. Therefore, because the project will not conflict with policies related to alternative methods of transportation, adverse impacts are considered less than significant. This will not be addressed in the forthcoming EIR.

Mitigation: Potential impacts to traffic and circulation will be evaluated through the completion of a site specific Traffic Study, incorporated as part of the forthcoming EIR for this project.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

42. Bike Trails	☐	☐	☒	☐

Source: Lakeview/Nuevo Area Plan Figure 8, "Trails and Bikeway System"

Findings of Fact: A Class I bike trail/regional trail is planned along the Ramona Expressway. The proposed project will not adversely affect the development of this proposed trail. Other than the Ramona Expressway trail, there are no other County-planned bike trails within the project boundary; therefore the project has no adverse impact on County bike trails. However, the proposed Villages of Lakeview Specific Plan will identify regional and community trails network and the development of these trails will be considered as part of the project impact analysis of the forthcoming EIR.

Mitigation: None required.

Monitoring: None required

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITY AND SERVICE SYSTEMS Would the project				
43. Water	☒	☐	☐	☐
a) Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?				
b) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☒	☐	☐	☐

Source: Project Proposal

Findings of Fact:
a) Potable water will be provided to the proposed project development by the Eastern Municipal Water District (EMWD). The proposed project may require new or expanded water facilities, which will be discussed in the forthcoming EIR.

b) The proposed project site is located within the EMWD's service area which will supply water to the project site. A water supply assessment, as required by SB610, will be included in the Draft EIR. The forthcoming EIR will address water supplies for the proposed project.

Mitigation: Potential impacts to water supplies and water facilities by the proposed project will be evaluated in the forthcoming EIR. The results of the analysis, including any recommended mitigation measures, will be included in the forthcoming EIR.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

44. Sewer	☒	☐	☐	☐
a) Require or result in the construction of new wastewater treatment facilities, including septic systems, or expansion of existing facilities, the construction of which would cause significant environmental effects?				
b) Result in a determination by the wastewater treatment provider that serves or may service the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☒	☐	☐	☐

Source: Proposed Project

Findings of Fact:
a) Wastewater treatment service for the proposed project will be provided by EMWD. The project will be required to connect to existing EMWD sewer lines at Pico and Nuevo Roads. The project will be required to build these off-site sewer lines. Therefore, the project may significantly impact sewer service and this issue will be addressed in the forthcoming EIR.

b) See answer 44.a., above.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation: Potential impacts to sewer capacity by the proposed project will be evaluated in the forthcoming EIR. The results of the analysis, including any recommended mitigation measures, will be included in the forthcoming EIR.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

45. Solid Waste	☒	☐	☐	☐
a) Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				
b) Comply with federal, state, and local statutes and regulations related to solid wastes (including the CIWMP (County Integrated Waste Management Plan)?	☐	☐	☒	☐

Source: Riverside County Waste Management Department Project Proposal; Proposed Project

Findings of Fact:

a) Solid waste services will be managed by the Riverside County Waste Management Department and solid waste from the project site will most likely be disposed of at the Badlands or Lamb Canyon landfill. Potential impacts to landfill capacity as a result of increased solid waste from the proposed development will addressed in the forthcoming EIR.

b) The County of Riverside General Plan policies regarding solid waste management for new developments seek to ensure adequate life expectancy exists in a sanitary disposal site within a reasonable distance and that onsite collection occurs at least once a week for residential developments. In addition, state law (AB 939) required the County's waste management plan to include a 50% reduction in solid waste by January 1, 2000. The project will comply with all regulatory requirements regarding solid waste. This issue will not be addressed in the forthcoming EIR.

Mitigation: Potential impacts related to landfill capacity as a result of the proposed project will be evaluated in the forthcoming EIR. The results of the analysis, including any recommended mitigation measures, will be included in the forthcoming EIR.

Monitoring: Mitigation monitoring shall be determined if appropriate mitigation measures are warranted in the forthcoming EIR.

46. Utilities				
a) Would the project impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities; the construction of which could cause significant environmental effects?				
a) Electricity?	☒	☐	☐	☐
b) Natural gas?	☒	☐	☐	☐
c) Communications systems?	☐	☐	☒	☐
d) Storm water drainage?	☒	☐	☐	☐
e) Street lighting?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Maintenance of public facilities, including roads?	☒	☐	☐	☐
g) Other governmental services?	☐	☐	☒	☐
h) Conflict with adopted energy conservation plans?	☐	☐	☒	☐

Sources: Project Description

Findings of Fact:

a) Electricity service is provided for the existing land uses within the project vicinity by Southern California Edison Company. Extensions will have to be made to provide service to the proposed development. Extending electrical service to development of the proposed project will be analyzed in the EIR.

b) Natural gas service is provided to existing development in the project vicinity by Southern California Gas Company. Extensions will have to be made to proposed project structures. Extending natural gas service to development of the proposed project will be analyzed in the EIR.

c) The project will use existing communications service provided by Pacific Bell. Extensions will have to be made to proposed project. Since service exists for the existing land uses, extending communications service within roadways to the proposed project will be considered a less than significant impact.

Upgrades to existing facilities as well as the construction of new facilities may also be necessary to adequately serve the development of the proposed project with cellular communications service. However the need and the location of any future cell phone towers is speculative and cannot be analyzed at this point in time. Impacts related to telecommunications are considered less than significant. This issue will not be addressed in the forthcoming EIR.

d) The project will require the construction of a new onsite storm water drainage system to accommodate the additional run-off associated with the increase of impervious surfaces on the site. Storm water from the proposed onsite storm drain system is planned to discharge into the 100-year floodplain of the San Jacinto River. Water quality impacts associated with storm water will be addressed in the Hydrology/Water Quality Section of the EIR.

e) The proposed project will require new street lighting along the project's frontages, and within internal streets. Because the project is located in the Mt. Palomar Observatory area, any new street lighting has to be hooded, shielded and of low emissions to prevent light pollution. Based on this, the increase in street lighting construction from the project is considered less than a significant impact and will not be addressed in the forthcoming EIR.

f) Development of the proposed project will result in the need for additional road maintenance than would be needed without the project. The forthcoming EIR will discuss the project's need for new or altered maintenance of roads.

g) The proposed project contains a community center as part of the project. This community center could house a post office, library, community rooms and other amenities available to the general public. The project is being designed to provide governmental services to its citizens, rather than rely on existing governmental services. No other known governmental services are expected to be required for the project, and therefore this is not considered a significant adverse impact.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

h) The proposed project will meet all requirements of Title 24 California Code of Regulations construction for energy savings. There are no energy conservation policies outlined in the Lakeview/Nuevo Area Plan of the County of Riverside General Plan of which the project is a part. Therefore, no impacts to energy conservation plans are expected and this issue will not be addressed in the forthcoming EIR.

Mitigation: None required. Potential issues related to maintenance of public roads will be addressed under Item 41 (transportation/circulation) and these related to storm water drainage will be discussed under Item 24 (Hydrology/Water Quality).

Monitoring: Mitigation monitoring shall be determined after appropriate mitigation measures have been established in the forthcoming EIR.

OTHER				
47. Other: Not applicable	☐	☐	☐	☐

Source: Staff review

Findings of Fact:

Mitigation:

Monitoring:

MANDATORY FINDINGS OF SIGNIFICANCE				
48. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare, or endangered plant or animal to eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐

Source: GIS; RCIP; above checklist

Findings of Fact: The proposed project has the potential to significantly impact biological and cultural resources in the project area. This issue will be addressed in the forthcoming EIR.

49. Does the project have the potential to achieve short-term environmental goals, to the disadvantage of long-term environmental goals? (A short-term impact on the environment is one that occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)	☒	☐	☐	☐

Source: GIS, RCIP General Plan; Project Proposal; above checklist

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Findings of Fact: Given the size of the project, the proposed project will most likely be built out over a ten to fifteen year period. Therefore, short term goals such as providing housing in the area will be at the disadvantage of long term goals such as improving air quality and traffic circulation. Additionally, the project may have potentially significant impacts to biological and cultural resources. These issues will be addressed in the forthcoming EIR.

50.	Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects as defined in California Code of Regulations, Section 15130)?	☒	☐	☐	☐

Source: RCIP; Project Proposal; above checklist

Findings of Fact: When considered with planned land uses in the area, there is the potential to have significant cumulative impacts to air quality, water quality, traffic, noise, biological resources, cultural resources, agricultural resources, public services and utilities. These issues will be addressed in the forthcoming EIR.

51.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Source: Above checklist

Findings of Fact: The proposed project does not include any hazards or potential environmental effects that will directly cause a substantial adverse impact to human beings. Although the project will contribute to potentially significant cumulative impacts associated with traffic and circulation, air quality, noise, and loss of prime agricultural soils, these potential impacts will be mitigated to the extent feasible, and will not cause substantial indirect adverse effects on human beings. This issue will not be addressed in the forthcoming EIR.

VI. EARLIER ANALYSES

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration as per California Code of Regulations, Section 15063 (c) (3) (D). In this case, a brief discussion should identify the following:

Earlier Analyses Used, if any: 1) RCIP: Riverside County Integrated Project General Plan, adopted October 2003

RCIP: Riverside County Integrated Project

Location Where Earlier Analyses, if used, are available for review:

Location: County of Riverside Planning Department
4080 Lemon Street, 9th Floor
Riverside, CA 92505

VII. REFERENCES

The following documents were referred to as information sources during preparation of this document. They are available for public review at the locations abbreviated after each listing and spelled out at the end of this section. Some of these documents may also be available at the Riverside City and County Public Library, 3581 Seventh Street, Riverside, CA 92502-0468, and/or at branches of the library.

Cited As:	Source:
EDA	County of Riverside Economic Development Agency, 3525 14th Street, Riverside (909) 955-8916. (Available on the Internet at www.rivcoeda.org)
FEMA	Flood Insurance Rate Map, Riverside County, Community Panel Number 060245 1455 C, November 20, 1996.
RCIP General Plan	Riverside County Integrated Project, County of Riverside General Plan, Final Integrated Version, Adopted October 7, 2003. (Available at Riverside Co. – Planning and on the internet at www.rcip.org)
GP EIR	Riverside County Integrated Project, General Plan Draft Program Environmental Impact Report, August 14, 2002. (Available at Riverside Co. – Planning and on the internet at www.rcip.org)
GIS	County of Riverside, Geographic Information System Database. (Available at Riverside Co. – Planning.)
IMSA	County of Riverside Assessor's IMSA database. (Available at Riverside Co. – Planning.)
Lakeview/ Nuevo Area Plan	County of Riverside Planning Department, Lakeview/Nuevo Area Plan *Riverside County Integrated Plan, Final Version*, Adopted October 2003. (Available at Riverside Co. – Planning and on the internet at www.rcip.org/general_plan_jurupa_toc.htm)
Leighton 1	Leighton and Associates, Inc., *Villages of Lakeview Specific Plan No. 342/EIR No. 471 Preliminary Geotechnical Investigation, Proposed 550-Acre Mixed-Use Development, Amway Property, North and South Sides of Ramona Expressway, Lakeview, CA.* May 21, 2003. (Available at Riverside Co. – Planning.)
Leighton 2	Leighton and Associates, Inc., *Villages of Lakeview Specific Plan No. 342/EIR No. 471 Preliminary Geotechnical Investigation, Proposed 60-Acre Residential Development Ross Property, South of the Ramona Expressway and west of Bridge Street, Lakeview*

area of Unincorporated Riverside County, CA. October 28, 2004. (Available at Riverside Co. – Planning.)

Leighton 3 Leighton and Associates, Inc., *Villages of Lakeview Specific Plan No. 342/EIR No. 471 Preliminary Geotechnical Investigation, Proposed 120-Acre Mixed-Use Residential Development, LaCerte Property, South of Ramona Expressway near Bridge Street, Lakeview Area of Riverside County, CA.* July 29, 2004. (Available at Riverside Co. – Planning.)

Leighton 4 Leighton and Associates, Inc., *Villages of Lakeview Specific Plan No. 342/EIR No. 471 Preliminary Geotechnical Investigation, Proposed 437-Acre Mixed-Use Sherman Ranch Development, Vicinity of Lakeview Avenue East and 4th Street, Lakeview, CA.* September 16, 2003. (Available at Riverside Co. – Planning.)

Leighton 5 Leighton and Associates, Inc., *Villages of Lakeview Specific Plan No. 342/EIR No. 471 Preliminary Geotechnical Investigation, Proposed Mixed-Use Residential Development, 75-Acre Abudayyeh Property, South of Lakeview Avenue East and East of 5th Street, Lakeview, CA.* September 17, 2003. (Available at Riverside Co. – Planning.)

Leighton 6 Leighton and Associates, Inc., *Villages of Lakeview Specific Plan No. 342/EIR No. 471 Preliminary Geotechnical Investigation, Proposed Cannata Mixed-Use Residential Development, 135-Acre Thoroughbred Farm, Northeast of Hansen Avenue and Wolfskill Avenue, Lakeview, CA.* September 22, 2003. (Available at Riverside Co. – Planning.)

Leighton 7 Leighton and Associates, Inc., *Villages of Lakeview Specific Plan No. 342/EIR No. 471 Preliminary Geotechnical Investigation, Rockfall Hazard Evaluation, Villages of Lakeview, Lakeview Area of Unincorporated Riverside, CA.* December 10, 2004. (Available at Riverside Co. – Planning.)

Leighton 8 Leighton and Associates, Inc., *Villages of Lakeview Specific Plan No. 342/EIR No. 471 Preliminary Geotechnical Investigation, Proposed 155-Acre Residential Development, McAnally Property, South of Ramona Expressway Between Second and Fourth Streets, Lakeview Area of Riverside County, CA.* March 24, 2005. (Available at Riverside Co. – Planning.)

LOR 1 LOR Geotechnical Group, *Phase 1 Environmental Site Assessment and Limited Site Characterization. Lakeview Thoroughbred Farm,* September 2003. (Available at Riverside Co. – Planning.)

LOR 2 LOR Geotechnical Group, *Phase 1 Environmental Site Assessment Abudayyeh Land,* August 2003. (Available at Riverside Co. – Planning.)

LOR 3 LOR Geotechnical Group, *Additional Waste Characterization, Lakeview Burn Dump,* August 2004. (Available at Riverside Co. – Planning.)

LOR 4 LOR Geotechnical Group, *Phase 1 Environmental Site Assessment and Limited Site Characterization Sherman Ranch,* November 2003. (Available at Riverside Co. – Planning.)

LOR 5 LOR Geotechnical Group, *Phase 1 Environmental Site Assessment Pfeifer Property,* April 2004. (Available at Riverside Co. – Planning.)

LOR 6 LOR Geotechnical Group, *Phase 1 Environmental Site Assessment Amway Property,* May 2003. (Available at Riverside Co. – Planning.)

MSHCP County of Riverside, *Multiple Species Habitat Conservation Plan, Final Version*, Adopted June 17, 2003. (Available at Riverside Co. – Planning.)

NRCS Natural Resources Conservation Service, *Farmland Mapping and Monitoring Program,* 2000. (Available at Riverside Co. – Planning.)

Order 99-08-DWQ Water Quality Order 99-08-DWQ, State Water Resources Control Board. (SWRCB) *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity (General Permit.* (Available at the SWRCB.)

Ord. No. 348 Riverside County Ordinance No. 348, *Providing for Land Use Planning and Zoning Regulations and Related Functions.* (Available at Riverside Co. – Planning.)

Ord. No. 460 Riverside County Ordinance No. 460, *Regulating the Division of Land*. (Available at Riverside Co. – Transportation.)

Ord. No. 484 Riverside County Ordinance No. 484, *Regulating Sand Blowing.* (Available at Riverside Co. – Clerk of the Board.)

Ord. No. 625 Riverside County Ordinance No. 625, *Right to Farm.* (Available at Riverside Co. – Planning & Clerk of the Board.)

Ord. No. 655 Riverside County Ordinance No. 655, *Regulating Light Pollution*. (Available at Riverside Co. – Planning & Clerk of the Board.)

Ord. No. 810.2 Riverside County Ordinance No. 810.2. (Available at Riverside Co. – Planning & Clerk of the Board.)

Res. No. 94-125 Riverside County Board of Supervisors Resolution No. 94-125. (Available at Riverside Co. – County Geologist.)

RTA Riverside Transit Agency, *Maps & Schedules* (Available on the Internet at www.rrta.com)

SCAQMD South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993, with November 1993 Update. (Available at SCAQMD)

Thomas Guide Riverside County and San Bernardino County Street Guide, Thomas Brother's, 2004. (Available at Riverside Co. – Planning.)

USDA U.S. Department of Agriculture, Soil Conservation Service, *Soil Survey, Western Riverside Area, California,* November 1971 (Available at USDA.)

USGS U.S. Department of the Interior, Geological Survey, Lakeview Quadrangle, California. 7.5 Minute series (topographic), prepared 1966, photorevised 1981. (Available at Riverside Co. – Planning.)

Waste Riverside County Waste Management Department

Location:	Address:
Riverside Co. – Clerk of the Board	County of Riverside, 4080 Lemon Street, 14th Floor, Riverside, CA 92502, or on the Internet at *www.co.riverside.ca.us/depts/brdofsup/ords.htm*
Riverside Co. - County Geologist	County of Riverside, 4080 Lemon Street, 9th Floor, Riverside, CA 92502
Riverside Co. - Dept. of Environmental Health	County of Riverside, 4080 Lemon Street, 2nd Floor, Riverside, CA 92501
Riverside Co .- Flood	Riverside County Flood Control and Water Conservation District, 1995 Market Street, Riverside CA 92501
Riverside Co. - Planning	County of Riverside, 4080 Lemon Street, 2nd Floor, Riverside, CA 92502
Riverside Co. - Transportation	County of Riverside, 4080 Lemon Street, 14th Floor, Riverside, Ca 92502, or on the Internet at *www.tlma.co.riverside.ca.us/tran/ordins.htm*
SCAQMD	South Coast Air Quality Management District, 21865 East Copley Drive, Diamond Bar, CA 91765-4182
USDA	U.S. Department of Agriculture, Natural Resource Conservation Service (formerly Soil Conservation Service), 1299 Columbia Avenue, Suite E-5, Riverside, CA 92507

VIII. LIST OF INITIAL STUDY PREPARERS

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Agenda Item No.: 4.1
Area Plan: Lakeview/Nuevo
Zoning Area: Nuevo Area
Supervisorial District: Fifth
Project Planner: Matt Straite
Planning Commission: January 10, 2006

CHANGE OF ZONE No. 7448
TENTATIVE PARCEL MAP No. 33510
E.A. Number: 40222
Applicant/Engineer: Stefan Lanthier

COUNTY OF RIVERSIDE PLANNING DEPARTMENT
STAFF REPORT

PROJECT DESCRIPTION AND LOCATION:

Change of Zone No. 7448 proposes a consistency zone change from Rural Residential (R-R) to One Family Residential 20,000 square foot minimum (R-1-20,000).

Tentative Parcel Map No. 33510 proposes a schedule H subdivision from 4.84 gross acres into 4 one-acre parcels.

The project site is located northerly of Walnut Avenue, southerly of Rider Street, easterly of Evans Road, and westerly of El Nido Avenue.

SUMMARY OF FINDINGS:

1. Existing Land Use (Ex. #1):	Vacant
2. Surrounding Land Use (Ex. #1):	Single-family tract housing to the west, rural residences to the north, east and south.
3. Existing Zoning (Ex. #2):	Rural Residential (R-R)
4. Proposed Zoning (Ex. #3)	One Family Residential 20,000 sq ft min (R-1-20,000)
4. Surrounding Zoning (Ex. #2):	Rural Residential (R-R) to the north, south and east, City of Perris to the west.
5. General Plan:	Community Development: Low Density Residential (CD: LDR)
6. Project Data:	Total Acreage: 4.84 Gross Total Proposed Lots: 4 Proposed Min. Lot Size: 1 Acre Schedule: H
7. Environmental Concerns:	See Attached Environmental Assessment

RECOMMENDATIONS:

ADOPTION of a **MITIGATED NEGATIVE DECLARATION** for **EVIRONMENTAL ASSESMENT NO. 40222** based on the findings incorporated in the initial study and the conclusion that the project will not have a significant effect on the environment with proposed mitigation; and,

TENTATIVE APPROVAL of CHANGE OF ZONE NO. 7448 from Rural Residential (R-R) to One Family Dwelling 20,000 Square Foot Minimum (R-1-20,000), in accordance with Exhibit# 3, based upon the findings and conclusions incorporated in the staff report; and,

APPROVAL of **TENTATIVE PARCEL MAP NO. 33510**, subject to the attached conditions of approval, and based upon the findings and conclusions incorporated in the staff report.

CONCLUSIONS:

1. The proposed project is in conformance the Community Development: Low Density Residential (CD: LDR) (1/2 acre minimum) Land Use Designation, and with all other elements of the Riverside County General Plan.

2. The proposed project is consistent with the proposed One Family Dwelling- 20,000 Square Foot Minimum (R-1-20,000) zoning classification of Ordinance No. 348, and with all other applicable provisions of Ordinance No. 348.

3. The proposed project is consistent with the Schedule H map requirements of Ordinance No. 460, and with other applicable provisions of Ordinance No. 460.

4. The public's health, safety, and general welfare are protected through project design.

5. The proposed project is compatible with the present and future logical development of the area.

6. The proposed project is exempt from the provision of the California Environmental Quality Act (CEQA) per section 15315, Class 15 categorical exemption.

7. The proposed project will not preclude reserve design for the Multi-Species Habitat Conservation Plan (MSCHP).

FINDINGS:

1. The project site is designated Community Development: Low Density Residential (CD: LDR) (1/2 acre minimum)on the Lakeview/Nuevo Area Plan.

2. The proposed use, residential parcels with a minimum lot size of 1 acre, is permitted use in the Community Development: Low Density Residential (CD: LDR) designation.

3. The project site is surrounded by properties which are designated Community Development: Low Density Residential (CD: LDR) to the south, east and north, and by the City of Perris to the west.

4. The zoning for the subject site is Rural Residential (R-R).

5. The project site is surrounded by properties which are zoned Rural Residential (R-R) to the north, east, and south and by the City of Perris to the west.

6. In accordance with Section 3.2.J. of Ordinance No. 460, the applicant has provided written assurance from the owner of the property underlying the off-site improvement/alignment (as shown on the Tentative Map) that sufficient right-of-way can and will be provided. In the event the above referenced property owner or their successor-in-interest does/do not provide to the Transportation Department and/or Flood Control District the necessary dedication, eminent domain proceedings may need to be instituted by the Riverside County Board of Supervisors.

7. Single-family residential uses have been constructed and are operating in the project vicinity.

8. The proposed project is not in a Multi Species Habitat Conservation Plan Criteria Cell and is not subject to the MSHCP.

9. Environmental Assessment No. 40222 identified the following potentially significant impacts:

   a. Aesthetics
   b. Biological Resources
   c. Hydrology/Water Quality
   d. Utilities/Service Systems

   These listed impacts will be fully mitigated by the measures indicated in the environmental assessment, conditions of approval, and attached letters. No other significant impacts were identified.

INFORMATIONAL ITEMS:

1. As of this writing, no letters, in support or opposition have been received.

2. The project site is not located within:
   a. An Alquist-Priolo earthquake fault hazard study zone;
   b. A 100-year flood plain;
   c. A hazardous fire area; or,
   d. An MSHCP Criteria Cell.

3. The project site is located within:
   a. The boundaries of the Val Verde Unified School District;
   b. The Stephens Kangaroo Rat Fee Area;
   c. County Service Area 146A;
   d. The City of Perris sphere of influence;
   e. The Perris Valley Drainage Plan;
   f. A dam inundation area; and
   g. The San Jacinto Valley Watershed.

4. The subject site is currently designated as Assessor's Parcel Number 306-070-006.

(Posted to Web 10/13/09, Last Updated 10/26/09)

October 21, 2009
9:00 A.M.

AGENDA
REGULAR MEETING
RIVERSIDE COUNTY PLANNING COMMISSION
4080 LEMON STREET
1ST FLOOR, BOARD CHAMBERS
RIVERSIDE, CALIFORNIA 92501

CALL TO ORDER - ROLL CALL
SALUTE TO THE FLAG

Please be aware that the indicated staff recommendation shown below for each item may differ from that presented to Commission during the public hearing.

NOTE: If you wish to speak, please complete a SPEAKER IDENTIFICATION FORM and give it to the Secretary. The purpose hearing is to allow interested parties to express their concerns. Please do not repeat information already given. If you have no information, but wish to be on record, simply give your name and address and state that you agree with the previous speaker(s

In compliance with the Americans with Disabilities Act, if any accommodations are needed, please contact Chantell M. Griffin a or E-mail at cgriffin@rctlma.org. Request should be made at least 48 hours or as soon as possible prior to the scheduled meeti

Click Here to View Important Information on Conditions of Approval and This Agenda

Be advised that some of the Public Hearing Presentation PDF's included on this page are over 1 Megabyte in size and may tak expected to open on a dial up connection.

* Staff Reports, Environmental Assessment's and Public Hearing Presentations are in Adobe PDF format. You will need the Ad installed on your computer to view these staff reports. Click the image below to get the reader.



1.0 CONSENT CALENDAR

1.1 **RESOLUTION NO. 2009-02** - Intent to Certify Environmental Impact Report No. 510 - Applicant: Hogle-Ireland - Engineer/Representative: Rick Engineering - First Supervisorial District - March Zoning District - Lake Mathews / Woodcrest Area Plan: Community Development: Light Industrial (CD: LI) (0.25-0.60 Floor Area Ratio) - Location: southerly of Alessandro Boulevard, easterly of Gem Lane, and westerly of Brown Street - 54.39 Gross Acres - Zoning: Industrial Park (I-P)

REQUEST: The Environmental Impact Report has been prepared to inform decisions makers and the public of the potential significant environmental effects associated with the development of the proposed plot plan per the California Environmental Quality Act (CEQA).

APNs: 297-080-007, 297-080-008, 297-080-009 and 297-080-010

Project Planner: Jeff Childers
Ph: (951) 955-3626 or E-mail jchilder@rctlma.org
(Legislative) (Continued from 9/30/09)

Staff Recommendation: ADOPTION OF RESOLUTION NO. 2009-02 CERTIFYING ENVIRONMENTAL IMPA
NO. 510

1.2 **SPECIFIC PLAN NO. 265, SUBSTANTIAL CONFORMANCE NO. 2** - CEQA Exempt - Applicant: French Valley Airport Center LLC - Engineer/Representative: Stanley D. Heaton, P.E. - Third Supervisorial District - Rancho California Zoning Area - Southwest Area Plan: Community Development: Commercial Retail (CD: CR) (0.20-0.35 Floor Area Ratio), Commerical Office (CD: CO) (0.25-1.0 Floor Area Ratio), Light Industrial (CD: LI) (0.25-0.60 Floor Area Ratio), Business Park (CD: BP) (0.25-0.60 Floor Area Ratio), Open Space: Conservation (OS: C) - Location: Northerly of Technology Drive, southerly of Benton Road, easterly of Winchester Road and westerly of Leon Road - 708.99 Gross Acres - Zoning: Specific Plan No. 265

REQUEST: The specific plan substantial conformance proposes to amend condition of approval 10.PLANNING.11 of Specific Plan No. 265, to extend the expiration date of the Specific Plan from 15 years to 30 years. Condition of approval 10.PLANNING.11 requires a specific plan amendment application to be filed concurrently when a development project is submitted 15 years after the original specific plan was approved. The proposed change to the condition would change that 15 year requirement to a 30 year requirement.

APNs: 957-320-001, 957-320-005, 957-320-006, 957-320-007, 957-320-011, 957-320-012, 957-320-014, 957-320-016, 957-320-018, 957-320-021, 957-320-023, 957-320-024, 963-030-002, 963-030-003, 963-030-004, 963-030-005, 963-030-006, 963-070-018, 963-070-020, 963-070-021, 963-070-033, 963-080-002, 963-080-003, 963-080-004, 963-080-005, 963-080-006, 963-080-007, 963-080-008, 963-080-009, 963-080-010, 963-080-011 and 963-080-012

Project Planner: Kinika Hesterly
Ph: (951) 955-1888 or E-mail khesterl@rctlma.org
(Legislative)

Staff Recommendation: APPROVAL

2.0 ORAL COMMUNICATION ON ANY MATTER NOT ON THE AGENDA.

3.0 ITEMS THAT STAFF RECOMMENDS BE CONTINUED WITHOUT DISCUSSION: **9:00 a.m.** or as soon as possible thereafter. (Presentation available upon Commissioners request)

3.1 **NONE**

4.0 ITEMS THAT STAFF RECOMMENDS APPROVAL UNDER ONE MOTION UNLESS A COMMISSION MEMBER OR MEMBER OF THE PUBLIC DESIRES TO DISCUSS THE MATTER: **9:00 a.m.** or as soon as possible thereafter.

4.1 **NONE**

5.0 PUBLIC HEARING: **9:00 a.m.** or as soon as possible thereafter:

5.1 **SPECIFIC PLAN NO. 342 / GENERAL PLAN AMENDMENT NO. 720 (LAND USE) / GENERAL PLAN AMENDMENT 721 (CIRCULATION) / CHANGE OF ZONE NO. 7055 / ENVIRONMENTAL IMPACT REPORT NO. 471** - Applicant: Nuevo Development Company LLC. - Engineer/Representative: Lewis Operating Corporation - Fifth Supervisorial District - Lakeview Area and Hemet/San Jacinto & Lakeview Zoning District - Lakeview/Nuevo Area Plan: Agriculture: Agriculture (AG:AG) (10 Acre Minimum), Community Development: Commercial Retail (CD:CR) (0.20 - 0.35 Floor Area Ratio), Community Development: Low Density Residential (CD:LDR) (1/2 Acre Minimum), Community Development: Light Industrial (CD:LI) (0.25 - 0.60 Floor Area Ratio), Community Development: Public Facilities (CD:PF) (< 0.60 Floor Area Ratio), Community Development: Very Low Density Residential (CD: VLDR) (1 Acre Minimum), Rural Community: Low Density Residential (RC:LDR) (1/2 Acre Minimum), Rural Community: Very Low Density Residential (RC:VLDR) (1 Acre Minimum), Rural: Rural Mountainous (R:RM) (10 Acre Minimum), Rural: Rural Residential (R:RR) (5 Acre Minimum), Open Space: Conservation (OS:C), and Open Space: Conservation Habitat (OS:CH) Location: The project is located westerly of the City of San Jacinto, northerly of the Juniper Flats Mountains, northerly and southerly of the Ramona Expressway, and easterly of the San Jacinto River - 2,786 Gross Acres - Zoning: Light Agriculture 10-Acre Minimum (A-1-10), Heavy Agriculture 10-Acre Minimum (A-2-10), Light Agriculture with Poultry 5-Acre Minimum (A-P), Rural Commercial ½-Acre Minimum (C-R), Manufacturing Service Commercial (M-SC), Natural Assets 20-Acre Minimum (N-A), Residential Agriculture ½-Acre Minimum (R-A), Residential Agriculture 1-Acre Minimum (R-A-1), Residential Agriculture 10-Acre Minimum (R-A-10), Residential Agriculture 2 ½-Acre Minimum (R-A-2 ½), Rural Residential ½-Acre Minimum (R-R), Natural Assets (N-A-640)

REQUEST: The Specific Plan proposes a maximum of 11,350 dwelling units to be constructed within seven (7) villages within 2,786 Gross Acres. The proposed land uses include: Medium High Residential (MH) (5 - 8 Dwelling Units per Acre) for 2,520 dwelling units on 490 Gross Acres; High Residential (H) (8 - 14 Dwelling Units per Acre) for 3,310 units on 371 Gross Acres; Very High Residential (VH) (14 - 22 Dwelling Units per Acre) for 2,420 units on 183 Gross Acres; Mixed Use Town Center (MU) for 3,100 units and 500,000 square feet of commercial on 288 Gross Acres; Public Facilities (PF) on 59 Gross Acres; Public Facilities/Open Space (PF/OS) on 95 Gross Acres; Parks on 155 Gross Acres ; Open Space (OS) on 998 Gross Acres; and 147 acres of right-of-way (ROW). General Plan Amendment No. 720 involves a Foundation change from Rural/Agricultural and Open Space to Community Development and changing the underlying land use designations from; Medium Density Residential (2-5 Dwelling Units per Acre); Low Density Residential (1/2 Acre Minimum); Very Low Density Residential (1 Acre Minimum); Light Industrial; Public Facility; Retail; Agriculture; Rural Mountainous; and, Conservation, to a Community Development Specific Plan (SP) land use designation. General Plan Amendment No. 721 proposes an amendment to the Circulation Element to delete, modify or add any Circulation Element roadways interior to or along the boundary of the Specific Plan to implement the roadway network illustrated in Exhibit B.2.6C - General Plan Roadway Classifications. This Exhibit is available for inspection through the contacts or at the location identified below in this notice. Key changes proposed to the County Circulation Element include, but are not limited to: the elimination of Yucca Avenue as a through street within the project boundary, the rerouting of 10th Street/Wolfskill Avenue as an Arterial and Secondary roadway east of Hansen Avenue. (The existing alignment of Wolfskill will remain a local street east of Hansen and will not be upgraded.) Hansen Avenue along the project boundary will be reclassified from a Major roadway (118' right-of-way) to a Collector Street, and Bridge Street, 3rd Street, 5th Street, and 6th Street will be eliminated on the project site and will not have direct access to Ramona Expressway as access to Ramona will be shifted to Town Center and Park Center Boulevards exclusively in this vicinity. Additionally, the above General Plan Amendment will amend the Circulation Element Trails and Bikeways System to include the Community Trail designation for a number of the trails proposed within the project boundary. A view of all the proposed trails within the project area is shown on Exhibit B.8.18.b, Project Trails Plan which is available for inspection through the contacts or at the location identified below in this notice. The Change of Zone is a request to change the zoning of the subject properties from A-1-10, A -2-10, A-P, C-P-S, C-R, M-SC, R-1, R-A, R-A-1, R-A-10, R-A-21/2, and R-R Zone to Specific Plan (SP). The Project is also proposing a Zoning Ordinance to implement the Specific Plan. The Environmental Impact Report analyzes the environmental impacts of

the proposed project.

APNs:425-100-002, 425-100-015, 425-120-002, 425-120-005, 425-120-007, 425-120-008, 425-120-009, 425-120-010, 425-120-011, 425-120-012, 425-140-001, 425-140-002, 425-140-006, 425-140-007, 425-140-008, 425-140-009, 425-140-010, 425-140-011, 425-140-012, 425-160-001, 425-160-002, 425-160-003, 425-160-004, 425-160-005, 425-160-006, 425-160-007, 425-160-008, 425-170-001, 425-170-002, 425-170-003, 425-170-004, 425-170-005, 425-170-006, 425-170-011, 425-170-012, 425-170-013, 425-170-014, 425-170-015, 425-170-016, 425-170-017, 425-170-018, 425-170-019, 425-170-020, 425-170-021, 425-170-022, 425-170-027, 425-170-028, 425-170-029, 425-170-030, 425-170-031, 425-170-033, 425-170-034, 425-170-035, 425-170-036, 425-180-001, 425-180-002, 425-190-001, 425-190-002, 425-190-009, 425-190-012, 425-190-016, 425-230-004, 425-230-005, 425-230-006, 425-230-007, 425-230-008, 425-230-009, 425-230-010, 425-230-011, 425-230-012, 425-230-013, 425-230-014, 425-230-017, 425-230-018, 425-230-020, 425-230-021, 425-230-022, 425-240-001, 425-240-002, 425-240-003, 425-240-004, 425-240-005, 425-240-010, 425-240-012, 425-240-013, 425-240-015, 425-240-016, 425-240-017, 425-240-018, 425-250-012, 425-250-017, 425-250-018, 425-260-002, 425-260-003, 425-260-004, 425-260-005, 426-020-009, 426-020-013, 426-030-002, 426-030-003, 426-030-004, 426-030-005, 426-030-006, 426-030-007, 426-030-009, 426-030-010, 426-030-011, 426-030-012, 426-030-013, 426-030-017, 426-030-018, 426-030-022, 426-040-001, 426-040-002, 426-040-003, 426-050-001, 426-050-002, 426-050-003, 426-050-004, 426-050-009, 426-071-001, 426-071-002, 426-071-003, 426-081-001, 426-081-002, 426-082-002, 426-150-001, 426-150-004, 426-160-003, 426-160-007, 426-160-019, 426-160-020, 426-160-021, 426-160-022, 426-160-024, 426-160-025, 426-160-026, 426-160-027, 426-160-028, 426-160-029, 426-160-030, 426-160-031, 426-160-033, 426-160-034, 426-160-035, 426-160-036, 426-160-054, 426-160-055, 426-200-016, 426-200-017, 426-200-018, 426-200-022, 426-200-023, 426-200-024, 426-200-025, 426-200-026, 426-200-027, 426-200-028, 426-200-029, 426-200-030, 426-200-031, 426-200-032, 426-200-034, 426-200-035, 426-200-036, 426-200-052, 426-200-053, 426-350-009, 426-390-001, 426-390-002 and 426-400-015

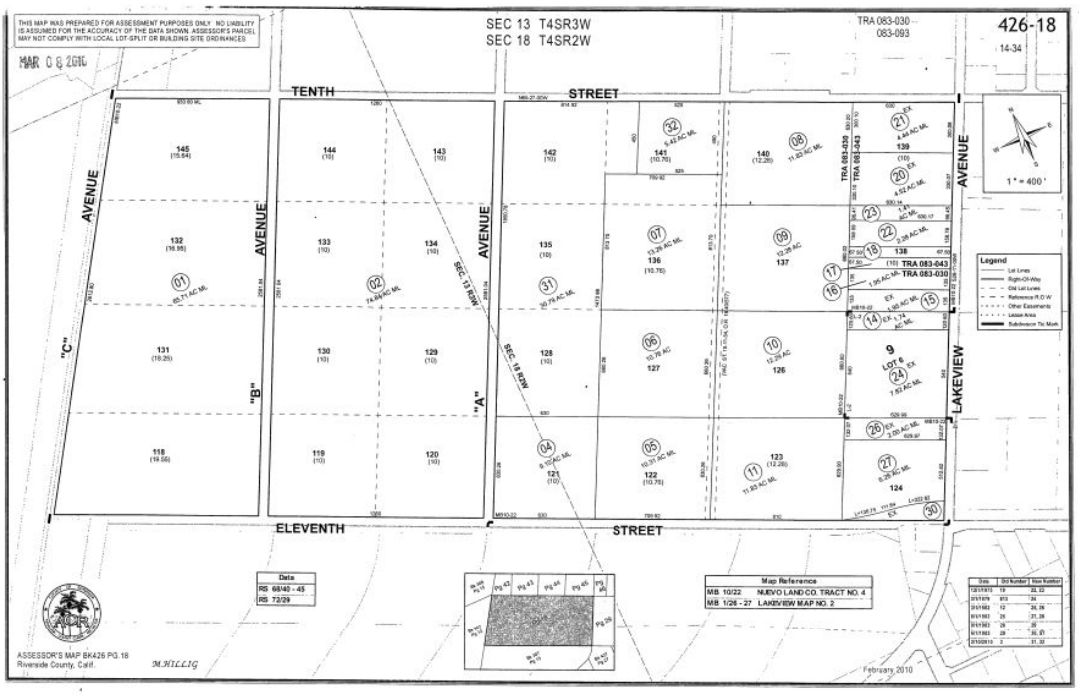
Project Planner: Matt Straite
Ph: (951) 955-8631 or E-mail at mstraite@rctlma.org
(Legislative) (Continued from 9/16/09)

Staff Recommendation: CONTINUE WITH DISCUSSION TO NOVEMBER 4, 2009

6.0 PLANNING COMMISSION SECRETARY'S COMMENTS

7.0 PLANNING DIRECTOR'S COMMENTS

8.0 COMMISSIONERS' COMMENTS


THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. ASSESSOR'S PARCEL MAY NOT COMPLY WITH LOCAL LOT-SPLIT OR BUILDING SITE ORDINANCES
MAR 0 8 2010
SEC 13 T4SR3W
SEC 18 T4SR2W
TRA 083-030
083-093
426-18
14-34
TENTH
STREET
ELEVENTH
STREET
AVENUE
"C"
"B"
"A"
LAKEVIEW
SEC 13 R/W
SEC 18 R/W
1" = 400'
Legend
Lot Lines
Right-Of-Way
Old Lot Lines
Reference R.O.W
Other Easements
Lease Area
Subdivision Tie Mark
TRA 083-043
TRA 083-030
Data
RS 68/40 - 45
RS 72/29
Map Reference
MB 10/22 NUEVO LAND CO. TRACT NO. 4
MB 1/26 - 27 LAKEVIEW MAP NO. 2
ASSESSOR'S MAP BK426 PG.18
Riverside County, Calif.
February 2010

CONDITIONS OF APPROVAL FOR PM33510 Online Services

Results for PM33510 as of 6/16/2011 10:50:35 AM

10. EVERY 001 **MAP- DEFINITIONS** **Status:** **RECOMMND** **Conditions:** **Informational**
GENERAL CONDITIONS

The words identified in the following list that appear in all capitals in the attached conditions of Tentative Parcel Map No. 33510 shall be henceforth defined as follows:

TENTATIVE MAP = Tentative Parcel Map No. 33510, Amended No. 2, dated 7/18/06.

FINAL MAP = Final Map or Parcel Map for the TENTATIVE MAP whether recorded in whole or in phases.

10. EVERY 002 **MAP - PROJECT DESCRIPTION** **Status:** **RECOMMND** **Conditions:** **Informational**
GENERAL CONDITIONS

The land division hereby permitted is a Schedule H subdivision of 4.84 gross acres into 4 one-acre residential parcels.

10. EVERY 003 **MAP - HOLD HARMLESS** **Status:** **RECOMMND** **Conditions:** **Informational**
GENERAL CONDITIONS

The land divider or any successor-in-interest shall defend, indemnify, and hold harmless the County of Riverside COUNTY), its agents, officers, or employees from any claim, action, or proceeding against the COUNTY, its agents, officers, or employees to attack, set aside, void, or annul an approval of the COUNTY, its advisory agencies, appeal boards, or legislative body concerning the TENTATIVE MAP, which action is brought within the time period provided for in California Government Code, Section 66499.37. The COUNTY will promptly notify the land divider of any such claim, action, or proceeding against the COUNTY and will cooperate fully in the defense. If the COUNTY fails to promptly notify the land divider of any such claim, action, or proceeding or fails to cooperate fully in the defense, the land divider shall not, thereafter, be responsible to defend, indemnify, or hold harmless the COUNTY.

10.BS GRADE 001 **MAP-GIN INTRODUCTION** **Status:** **RECOMMND** **Conditions:** **Informational**
GENERAL CONDITIONS

Improvement such as grading, filling, over excavation and recompaction, and base or paving which require a grading permit are subject to the included Building and Safety Grading Division conditions of approval.

10.BS GRADE 002 **MAP-G1.2 OBEY ALL GDG REGS** **Status:** **RECOMMND** **Conditions:** **Informational**
GENERAL CONDITIONS

All grading shall conform to the California Building Code, Ordinance 457, and all other relevant laws, rules and regulations governing grading in Riverside County and prior to commencing any grading which includes 50 or more cubic yards, the applicant shall obtain a grading permit from the Building & Safety Department.

10.BS GRADE 003
GENERAL CONDITIONS

MAP-G1.3 DISTURBS NEED G/PMT

Status: RECOMMND
Conditions: Informational

Ordinance 457 requires a grading permit prior to clearing , grubbing or any top soil disturbances related to construction grading.

10.BS GRADE 004
GENERAL CONDITIONS

MAP-G1.5 EROS CNTRL PROTECT

Status: RECOMMND
Conditions: Informational

Graded but undeveloped land shall provide, in addition to erosion control planting, any drainage facility deemed necessary to control or prevent erosion. Additional erosion protection may be required during the rainy season from October 1 to May 31.

10.BS GRADE 005
GENERAL CONDITIONS

MAP-G1.6 DUST CONTROL

Status: RECOMMND
Conditions: Informational

All necessary measures to control dust shall be implemented by the developer during grading.

10.BS GRADE 006
GENERAL CONDITIONS

MAP-G2.1 GRADING BONDS

Status: RECOMMND
Conditions: Informational

Grading in excess of 199 cubic yards will require performance security to be posted with the Building & Safety Department. Single family dwelling units graded one lot per permit and proposing to grade less than 5,000 cubic yards are exempt.

10.BS GRADE 007
GENERAL CONDITIONS

MAP-G2.5 2:1 MAX SLOPE RATIO

Status: RECOMMND
Conditions: Informational

Grade slopes shall be limited to a maximum steepness ratio of 2:1 (horizontal to vertical) unless otherwise approved.

10.BS GRADE 009
GENERAL CONDITIONS

MAP-G2.8MINIMUM DRNAGE GRAD

Status: RECOMMND
Conditions: Informational

Minimum drainage grade shall be 1% except on portland cement concrete where 0.35% shall be the minimum.

10.BS GRADE 015
GENERAL CONDITIONS

MAP-G1.4 NPDES/SWPPP

Status: RECOMMND
Conditions: Informational

Prior to issuance of any grading or construction permits - whichever comes first - the applicant shall provide the Building and Safety Department evidence of compliance with the following: "Effective March 10, 2003 owner operators of grading or construction projects are required to comply with the N.P.D.E.S. (National Pollutant Discharge Elimination System) requirement to obtain a construction permit from the State Water Resource Control Board (SWRCB). The permit requirement applies to grading and construction sites of "ONE" acre or larger. The owner operator can comply by submitting a "Notice of Intent" (NOI), develop and implement a STORM WATER POLLUTION PREVENTION PLAN (SWPPP) and a monitoring program and reporting plan for the construction site. For additional information and to obtain a

copy of the NPDES State Construction Permit contact the SWRCB at (916) 657-1146.

Additionally, at the time the county adopts, as part of any ordinance, regulations specific to the N.P.D.E.S., this project (or subdivision) shall comply with them.

10.FIRE 001 GENERAL CONDITIONS — **MAP-#50-BLUE DOT REFLECTORS** — Status: **RECOMMND** — Conditions: **Informational**

Blue retroreflective pavement markers shall be mounted on private streets, public streets and driveways to indicate location of fire hydrants. Prior to installation, placement of markers must be approved by the Riverside County Fire Department.

10.FIRE 002 GENERAL CONDITIONS — **MAP-#13-HYDRANT SPACING** — Status: **RECOMMND** — Conditions: **Informational**

Schedule H fire protection. An approved standard fire hydrant (6"x4"x2 1/2") shall be located within 500 feet of the driveway entrance as measured along approved vehicular travelways. Minimum fire flow shall be 500 GPM for 2 hour duration at 20 PSI.

10.FLOOD RI 001 GENERAL CONDITIONS — **MAP FLOOD HAZARD REPORT** — Status: **RECOMMND** — Conditions: **Informational**

PM 33510 proposes to subdivide 4.84 gross acres into 4 one-acre lots in the Perris area. The project is located just east of Old Evans Road, south of Rider Street, north of Walnut Avenue and west of El Nido Avenue.

A development upstream (TR 30870 and part of the May Ranch SP) has currently been graded. The drainage infrastructure within the Perris Valley MDP for this tract includes a storm drain under Rider Street. Therefore, except for nuisance nature local runoff that may traverse portions of the property, the project is considered free from ordinary storm flood hazard due to these offsite improvements. However, a storm of unusual magnitude could cause some damage. New construction should comply with Section 1B of Ordinance 457, by elevating the finished floor a minimum of one foot above the adjacent ground, measured at the upstream edge of the structure.

The site is located within the bounds of the Perris Valley Area Drainage Plan (ADP) for which drainage fees have been established by the Board of Supervisors. Applicable ADP fees will be due (in accordance with the Rules and Regulations for Administration of Area Drainage Plans) prior to permits for this project. Although the current fee for this ADP is $8,875 per acre (or per lot for parcels larger than one acre), the fee due will be based on the fee in effect at the time of payment. The fee is payable to the Flood Control District by cashier's check or money order only. The District will not accept personal or company checks.

10.PLANNING 001 GENERAL CONDITIONS — **MAP - GEO NO. 1601** — Status: **RECOMMND** — Conditions: **Informational**

County Geologic Report (GEO) No. 1601 was prepared for this project (PM33510) by Norcal Engineering and is entitled: "Geotechnical Engineering Investigation, Proposed Residential Development, Evans Road and McClure Court, Perris, County of Riverside, California", dated January 4, 2006. In addition Norcal Engineering prepared the following report:

1."Response to County Geotechnical Report Review Sheet-Proposed Residential Development-Located at the Southeast Corner of Evans Road and McClure Court, Perris, in the County of Riverside, California", dated March 14, 2006.

GEO No. 1601 concluded that the potential for liquefaction at the site is very low due to the dense soils and bedrock materials underlying the site.

GEO No. 1601 satisfies the requirement for a Liquefaction study for Planning/CEQA purposes. GEO No. 1601 is hereby accepted for Planning purposes. Engineering and other Uniform Building Code parameters where not included, as a part of this review or approval and this approval is not intended, and should not be misconstrued as approval for grading permit. Engineering and other building code parameters will be reviewed and additional comments and/or conditions may be imposed by the Building and Safety Department upon application for grading and/or building permits.

10.PLANNING 002 **MAP - MAP ACT COMPLIANCE** **Status:** **RECOMMND** **Conditions:** **Informational**
GENERAL CONDITIONS

This land division shall comply with the State of California Subdivision Map Act and to all requirements of County Ordinance No. 460, Schedule H, unless modified by the conditions listed herein.

10.PLANNING 003 **MAP - FEES FOR REVIEW** **Status:** **RECOMMND** **Conditions:** **Informational**
GENERAL CONDITIONS

Any subsequent review/approvals required by the conditions of approval, including but not limited to grading or building plan review or review of any mitigation monitoring requirement, shall be reviewed on an hourly basis, or other appropriate fee, as listed in ounty Ordinance No. 671. Each submittal shall be accompanied with a letter clearly indicating which condition or conditions the submittal is intended to comply with.

10.PLANNING 005 **MAP - LANDSCAPE MAINTENANCE** **Status:** **RECOMMND** **Conditions:** **Informational**
GENERAL CONDITIONS

The land divider, or any successor-in-interest to the land divider, shall be responsible for maintenance and upkeep of all slopes, landscaped areas and irrigation systems within the land division until such time as those operations are the responsibility of the individual home owners, a homeowners association, or any other successor-in-interest.

10.PLANNING 009 **MAP - ZONING STANDARDS** **Status:** **RECOMMND** **Conditions:** **Informational**
GENERAL CONDITIONS

Lots created by this TENTATIVE MAP shall be in conformance with the development standards of the R-1-1 zone.

10.PLANNING 010 **MAP - 90 DAYS TO PROTEST** **Status:** **RECOMMND** **Conditions:** **Informational**
GENERAL CONDITIONS

The project applicant has 90 days from the date of approval of these conditions to protest, in accordance with the procedures set forth in Government Code Section

66020, the imposition of any and all fees, dedications, reservations and/or other exactions imposed on this project as a result of the approval or conditional approval of this project.

10.PLANNING 011 GENERAL CONDITIONS — **MAP - NO OFFSITE SIGNAGE** — Status: **RECOMMND** — Conditions: **Informational**

There shall be no offsite signage associated with this land division, except as otherwise provided by Ordinance No. 679.3 (Kiosk Program).

10.PLANNING 013 GENERAL CONDITIONS — **MAP - NPDES COMPLIANCE (1)** — Status: **RECOMMND** — Conditions: **Informational**

Since the project will disturb one (1) acre or more, the land divider/permit holder shall comply with all of the applicable requirements of the National Pollution Discharge Elimination System (NPDES) and shall conform to NPDES Best Management Practices for Stormwater Pollution Prevention Plans during the life of this permit.

10.PLANNING 014 GENERAL CONDITIONS — **MAP - ORD 810 OPN SPACE FEE** — Status: **RECOMMND** — Conditions: **Informational**

Prior to the issuance of either a certificate of occupancy or prior to building permit final inspection, the applicant shall comply with the provisions of Riverside County Ordinance No. 810, which requires payment of the appropriate fee set forth in the Ordinance. Riverside County Ordinance No. 810 has been established to set forth policies, regulations and fees related to the funding and acquisition of open space and habitat necessary to address the direct and cumulative environmental effects generated by new development projects described and defined in this Ordinance.

The fee shall be paid for each residential unit to be constructed within this land division.

In the event Riverside County Ordinance No. 810 is rescinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 810 be rescinded and superseded by a subsequent mitigation fee ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

10.PLANNING 015 GENERAL CONDITIONS — **MAP - ORD NO. 659 (DIF)** — Status: **RECOMMND** — Conditions: **Informational**

Prior to the issuance of either a certificate of occupancy or prior to building permit final inspection, the applicant shall comply with the provisions of Riverside County Ordinance No. 659, which requires the payment of the appropriate fee set forth in the Ordinance. Riverside County Ordinance No. 659 has been established to set forth policies, regulations and fees related to the funding and construction of facilities necessary to address the direct and cummulative environmental effects generated by new development projects described and defined in this Ordinance, and it establishes the authorized uses of the fees collected.

The fee shall be paid for each residential unit to be constructed within this land division. In the event Riverside County Ordinance No. 659 is recinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 659 be

rescinded and superseded by a subsequent mitigation fee ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

10.PLANNING 016 GENERAL CONDITIONS — **MAP - OFF-HIGHWAY VEHICLE USE** — Status: **RECOMMND** — Conditions: **Informational**

No off-highway vehicle use shall be allowed on any parcel used for stockpiling purposes. The landowners shall secure all parcels on which a stockpile has been placed and shall prevent all off-highway vehicles from using the property.

10.PLANNING 017 GENERAL CONDITIONS — **MAP - SUBMIT BUILDING PLANS** — Status: **RECOMMND** — Conditions: **Informational**

The developer shall cause building plans to be submitted to the TLMA- Land Use Se tion for review by the Department of Building and Safety - Plan Check Division. Said plans shall be in conformance with the approved TENTATIVE MAP.

10.PLANNING 018 GENERAL CONDITIONS — **MAP - IF HUMAN REMAINS FOUND** — Status: **RECOMMND** — Conditions: **Informational**

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner shall be notified of the find immediately. If the remains are determined to be prehistoric, the coroner shall notify the Native American Heritage Commission, which will determine and notify the appropriate NATIVE AMERICAN TRIBE who is the most likely descendent. The descendent shall inspect the site of the discovery and make a recommendation as to the appropriate mitigation. After the recommendation has bee made, the property owner, a Native American Tribe representative, and a County representative shall meet to determine the appropriate mitigation measures and corrective actions to be implemented.

10.PLANNING 020 GENERAL CONDITIONS — **MAP - INADVERTENT ARCHAEO FIND** — Status: **RECOMMND** — Conditions: **Informational**

If during ground disturbance activities, unique cultural resources are discovered that were not assessed by the archaeological report(s) and/or environemntal assessment conducted prior to project approval, the following procedures shall be followed. Unique cultural resources are defined, for this condition, as being multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance.

1. All ground disturbance activities within 100 feet of the discovered cultural resources shall be halted until a meeting is convened between the developer, the archaeologist, the Native American tribal respresentative and the Planning Director to discuss the significance of the find.

2. At the meeting, the significance of the discoveries shall be discussed and after consultation with the Native American tribal representative and the archaeologist, a decision shall be made, with the concurrence of the Planning Director, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.

3. Grading of further ground disturbance shall not resume within the area of the

discovery until an agreement has been reached by all parties as to the appropriate mitigation.

10.TRANS 001 | **MAP - TS/EXEMPT** | **Status:** RECOMMND | **Conditions:** Informational

GENERAL CONDITIONS

The Transportation Department has not required a traffic study for the subject project. It has been determined that the project is exempt from traffic study requirements.

10.TRANS 002 | **MAP - DRAINAGE 1** | **Status:** RECOMMND | **Conditions:** Informational

GENERAL CONDITIONS

The land divider shall protect downstream properties from damages caused by alteration of the drainage patterns, i.e., concentration or diversion of flow. Protection shall be provided by constructing adequate drainage facilities including enlarging existing facilities and/or by securing a drainage easement. All drainage easements shall be shown on the final map and noted as follows: "Drainage Easement - no building, obstructions, or encroachments by landfills are allowed". The protection shall be as approved by the Transportation Department.

10.TRANS 003 | **MAP - DRAINAGE 2** | **Status:** RECOMMND | **Conditions:** Informational

GENERAL CONDITIONS

The land divider shall accept and properly dispose of all off-site drainage flowing onto or through the site. In the event the Transportation Department permits the use of streets for drainage purposes, the provisions of Article XI of Ordinance No. 460 will apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, the subdivider shall provide adequate drainage facilities and/or appropriate easements as approved by the Transportation Department.

10.TRANS 008 | **MAP - STD INTRO 3(ORD 460/461)** | **Status:** RECOMMND | **Conditions:** Informational

GENERAL CONDITIONS

With respect to the conditions of approval for the referenced tentative exhibit, he land divider shall provide all street improvements, street improvement plans and/or road dedications set forth herein in accordance with Ordinance 460 and Riverside County Road Improvement Standards (Ordinance 461). It is understood that the tentative map correctly shows acceptable centerline elevations, all existing easements, traveled ways, and drainage courses with appropriate Q's, and that their omission or unacceptablility may require the map to be resubmitted for further consideration. These Ordinances and all conditions of approval are essential parts and a requirement occurring in ONE is as binding as though occurring in all. All questions regarding the true meaning of the conditions shall be referred to the Transportation Department.

20.PLANNING 002 | **MAP - EXPIRATION DATE** | **Status:** RECOMMND | **Conditions:** Informational

PRIOR TO A CERTAIN DATE

The conditionally approved TENTATIVE MAP shall expire three (3) years after the ounty of Riverside Board of Supervisors original approval date, unless extended as provided by County Ordinance No. 460. Action on a minor change and/or revised map request shall not extend the time limits of the originally approved TENTATIVE MAP. A Land Management System (LMS) hold shall be placed on the TENTATIVE MAP, and a

LMS hold shall be placed on any subsequent minor change or revised map, which shall be set to take effect on the expiration date. The LMS hold effective date shall be extended in accordance with any permitted extensions of time. The LMS hold shall be downgraded to a LMS notice upon recordation of the the first phase of the TENTATIVE MAP. The LMS hold or notice shall remain in effect until the recordation of the final phase of the TENTATIVE MAP. If the TENTATIVE MAP expires before the recordation of the final phase the LMS hold or notice shall remain in effect and no further FINAL MAP recordation shall be permitted.

50.FIRE 001
PRIOR TO MAP RECORDATION

MAP-#43-ECS-ROOFING MATERIAL

Status: RECOMMND **Conditions:** Informational

Ecs map must be stamped by the Riverside County Surveyor with the following note: All buildings shall be constructed with class "A" material as per the California Building Code.

50.FIRE 002
PRIOR TO MAP RECORDATION

MAP-#64-ECS-DRIVEWAY ACCESS

Status: RECOMMND **Conditions:** Informational

Ecs map must be stamped by the Riverside County Surveyor with the following note: Driveways exceeding 150' in length, but less than 800' in length, shall provide a turnout near the midpoint of the driveway. Where the driveway exceeds 800', turnouts shall be provided no more than 400' apart. Turnouts shall be a minimum of 10' wide and 30' in length, with a minimum 25' taper on each end. A approved turnaround shall be provided at all building sites on driveways over 150 feet in length, and shall be within 50' of the building.

50.FIRE 003
PRIOR TO MAP RECORDATION

MAP-#73-ECS-DRIVEWAY REQUIR

Status: RECOMMND **Conditions:** Informational

Ecs map must be stamped by the Riverside County Surveyor with the following note: Access will not have an up, or downgrade of more than 15%.(access will not be less than 20 feet in width per the 2001 UFC, Article 9, Section 902.2.2.1) and will have a vertical clearance of 15'. Access will be designed to withstand the weight of 60 thousand pounds over 2 axles. Access will have a turning radius of 38 feet capable of accommodating fire apparatus.

50.FIRE 004
PRIOR TO MAP RECORDATION

MAP-#98-ECS-HYD/WTR TANK

Status: INEFFECT **Conditions:** Outstanding

Ecs map must be stamped by the Riverside County Surveyor with the following note: Prior to the issuance of a building permit, a water system for fire protection must be provided, either: 1) a domestic water system with an approved fire hydrant within 500' of the driveway entrance, or 2) a private well system with a water storage tank of sufficient size, as approved by the Riverside County Fire Department.

50.FLOOD RI 008
PRIOR TO MAP RECORDATION

MAP ADP FEES

Status: RECOMMND **Conditions:** Informational

A notice of drainage fees shall be placed on the environmental constraint sheet and final map. The exact wording of the note shall be as follows:

NOTICE OF DRAINAGE FEES

Notice is hereby given that this property is located in the Perris Valley Area Drainage Plan which was adopted by the Board of Supervisors of the County of Riverside pursuant to Section 10.25 of Ordinance 460 and Section 66483, et seq, of the Government Code and that said property is subject to fees for said drainage area.

Notice is further given that, pursuant to Section 10.25 of Ordinance 460, payment of the drainage fees shall be paid with cashier's check or money order only to the Riverside County Flood Control and Water Conservation District at the time of issuance of the grading or building permit for said parcels, whichever occurs first, and that the owner of each parcel, at the time of issuance of either the grading or building permit, shall pay the fee required at the rate in effect at the time of issuance of the actual permit.

50.PLANNING 001
PRIOR TO MAP RECORDATION

MAP - PREPARE A FINAL MAP

Status: **RECOMMND**

Conditions: **Informational**

After the approval of the TENTATIVE MAP and prior to the expiration of said map, the land divider shall cause the real property included within the TENTATIVE MAP, or any part thereof, to be surveyed and a FINAL MAP thereof prepared in accordance with the current County Transportation Department - Survey Division requirements, the conditionally approved TENTATIVE MAP, and in accordance with Article IX of County Ordinance No. 460.

50.PLANNING 002
PRIOR TO MAP RECORDATION

MAP - SURVEYOR CHECK LIST

Status: **RECOMMND**

Conditions: **Informational**

The County Transportation Department - Survey Division shall review any FINAL MAP and ensure compliance with the following:

A. All lots on the FINAL MAP shall be in substantial conformance with the approved TENTATIVE MAP relative to size and configuration.

B. All lots on the FINAL MAP shall have a minimum lot size of 1 acre gross.

C. All lot sizes and dimensions on the FINAL MAP shall be in conformance with the development standards of the R-1-1 and with the Riverside County Integrated Project (RCIP).

D. All lots on the FINAL MAP shall comply with the length to width ratios, as established by Section 3.8.C. of County Ordinance No. 460.

50.PLANNING 006
PRIOR TO MAP RECORDATION

MAP - ANNEX TO PARK DISTRICT

Status: **RECOMMND**

Conditions: **Informational**

The land divider shall submit written proof to the County Planning Department - Development Review Division that the subject property has been annexed to County Service Area No. 146A.

50.PLANNING 007
PRIOR TO MAP RECORDATION

MAP - QUIMBY FEES (1)

Status: RECOMMND
Conditions: Informational

The land divider shall submit to the County Planning Department - Development Review Division a duly and completely executed agreement with County Service Area No. 146A, which demonstrates to the satisfaction of the County that the land divider has provided for the payment of parks and recreation fees and/or dedication of land for the TENTATIVE MAP in accordance with Section 10.35 of County Ordinance No. 460.

50.PLANNING 013
PRIOR TO MAP RECORDATION

MAP - FINAL MAP PREPARER

Status: RECOMMND
Conditions: Informational

The FINAL MAP shall be prepared by a licensed land surveyor or registered civil engineer.

50.PLANNING 014
PRIOR TO MAP RECORDATION

MAP - ECS SHALL BE PREPARED

Status: RECOMMND
Conditions: Informational

The land divider shall prepare an Environmental Constraints Sheet (ECS) in accordance with Section 2.2. E. & F. of County Ordinance No. 460, which shall be submitted as part of the plan check review of the FINAL MAP.

50.PLANNING 019
PRIOR TO MAP RECORDATION

MAP - COMPLY WITH ORD 457

Status: RECOMMND
Conditions: Informational

The land divider shall provide proof to the County Planning Department - Land Use Division that all structures for human occupancy presently existing and proposed for retention comply with Ordinance No. 457.

50.PLANNING 021
PRIOR TO MAP RECORDATION

MAP - FEE BALANCE

Status: RECOMMND
Conditions: Informational

Prior to recordation, the Planning Department shall determine if the deposit based fees for the TENTATIVE MAP are in a negative balance. If so, any unpaid fees shall be paid by the land divider and/or the land divider's successor-in-interest.

50.PLANNING 024
PRIOR TO MAP RECORDATION

MAP - ECS NOTE MT PALOMAR LIGH

Status: RECOMMND
Conditions: Informational

The following Environmental Constraint Note shall be placed on the ECS:

"This property is subject to lighting restrictions as required by County Ordinance No.

655, which are intended to reduce the effects of night lighting on the Mount Palomar Observatory. All proposed outdoor lighting systems shall be in conformance with County Ordinance No. 655."

50.PLANNING 025
PRIOR TO MAP RECORDATION

MAP- DAM INNUNDATION ECS

Status: RECOMMND **Conditions:** Informational

The following Environmental Constraints Note shall be placed on the ECS: DAM INUNDATION AREA - This property is located downstream of the Perris Dam which is part of the domestic water distribution system for Southern California. As part of the construction of the dam that creates the reservoir area, an inundation map has been prepared in the event of failure of the dam. This map indicates that the floodway from this type of catastrophic dam failure would reach the project limits. The Department of Water Resources (DWR) has identified potential seismic safety risks in a section of the foundation of Perris Dam. There is no imminent threat to life or property. However, in the interest of ensuring the maximum public safety for those using and living downstream of the lake, the state determined that was necessary to lower the water level while additional analysis was performed in 2005. Following an independent expert analysis, DWR announced in October 2005 it will move ahead with its plans to repair Perris Dam. DWR is currently evaluating the best and most feasible repair alternatives to address the seismic concerns at Perris Dam. The decision on a preferred repair alternative will be made by the end of 2006. It is expected that design work, environmental documentation and permitting will take approximately two to three years, followed by construction work.

50.PLANNING 026
PRIOR TO MAP RECORDATION

MAP- Lkvw/Nuevo Imp program

Status: RECOMMND **Conditions:** Informational

This project lies within the proposed Lakeview Nuevo Implementation Program and/or its area of benefit. A mechanism for the funding of the Lakeview Nuevo Implementation Program is being established and will be applicable to developments within the program boundary and area of benefit. The project proponent agrees to make application for and pay their fair apportionment of the assessments, or pay the unit fees at such time as they become established as approved by the county.

50.TRANS 003
PRIOR TO MAP RECORDATION

MAP - SUFFICIENT R-O-W

Status: RECOMMND **Conditions:** Informational

Sufficient right-of-way along Evans Road shall be dedicated for public use to provide for a 30 foot half width right-of-way.

50.TRANS 004
PRIOR TO MAP RECORDATION

MAP - AGGREGATE/32'GRADED

Status: RECOMMND **Conditions:** Informational

McClure Court (Evans Road to easterly property line) shall be improved with 24 feet of acceptable Aggregate Base (0.33' thick) on a 32 foot graded section within a 60 foot full width dedicated right-of-way as approved by the Transportation Department.

50.TRANS 006
PRIOR TO MAP RECORDATION

MAP - EASEMENT/SUR

Status: RECOMMND **Conditions:** Informational

Any easement not owned by a public utility, public entity or subsidiary, not relocated or eliminated prior to final map approval, shall be delineated on the final map in addition to having the name of the easement holder, and the nature of their interests, shown on the map.

50.TRANS 010
PRIOR TO MAP RECORDATION

MAP - IMP PLANS

Status: RECOMMND **Conditions:** Informational

Improvement plans for the required improvements must be prepared and shall be based upon a design profile extending a minimum of 300 feet beyond the project boundaries at a grade and alignment as approved by the Riverside County Transportation Department. Completion of road improvements does not imply acceptance for maintenance by County.

50.TRANS 011
PRIOR TO MAP RECORDATION

MAP - OFF-SITE INFO

Status: RECOMMND **Conditions:** Informational

The off-site rights-of-way required for said access road(s) shall be accepted to vest title in the name of the public if not already accepted.

50.TRANS 013
PRIOR TO MAP RECORDATION

MAP - STREET NAME SIGN

Status: RECOMMND **Conditions:** Informational

The land divider shall install street name sign(s) in accordance with County Standard No. 816 as directed by the Transportation Department.

50.TRANS 014
PRIOR TO MAP RECORDATION

MAP - INTERSECTION/50' TANGENT

Status: RECOMMND **Conditions:** Informational

All enterline intersections shall be at 90 degrees, plus or minus 5 degrees, with a minimum 50' tangent, measured from flowline/curbface or as approved by the Transportation Planning and Development Review Division Engineer.

50.TRANS 020
PRIOR TO MAP RECORDATION

MAP - ASSESSMENT DIST 1

Status: RECOMMND **Conditions:** Informational

Should this project lie within any assessment/benefit district, the applicant shall, prior to recordation, make application for and pay for their reapportionment of the assessments or pay the unit fees in the benefit district.

50.TRANS 026
PRIOR TO MAP RECORDATION

MAP- CORNER CUT-BACK I/SUR

Status: RECOMMND **Conditions:** Informational

All corner cutbacks shall be applied per Standard 805, Ordinance 461, except for corners at Entry streets intersecting with General Plan roads, they shall be applied per Exhibit 'C' of the Countywide Design Guidelines.

60.BS GRADE 002
PRIOR TO GRADING PRMT ISSUANCE

MAP-G2.7DRNAGE DESIGN Q100

Status: RECOMMND **Conditions:** Informational

All grading and drainage shall be designed in accordance with Riverside County Flood Control & Water Conservation District's conditions of approval regarding this application. If not specifically addressed in their conditions, drainage shall be designed to accommodate 100 year storm flows.

Additionally, the Building and Safety Department's conditional approval of this application includes an expectation that the conceptual grading plan reviewed and approved for it complies or can comply with any WQMP (Water Quality Management Plan) required by Riverside County Flood Control and Water Conservation District.

60.BS GRADE 003
PRIOR TO GRADING PRMT ISSUANCE

MAP-G2.14OFFSITE GDG ONUS

Status: RECOMMND **Conditions:** Informational

Prior to the issuance of a grading permit, it shall be the sole responsibility of the owner/applicant to obtain any and all proposed or required easements and/or permissions necessary to perform the grading herein proposed.

60.BS GRADE 005
PRIOR TO GRADING PRMT ISSUANCE

MAP IMPORT/EXPORT

Status: RECOMMND **Conditions:** Informational

In instances where a grading plan involves import or export, prior to obtaining a grading permit, the applicant shall have obtained approval for the import/export location from the Building and Safety department. If an Environmental Assessment, prior to issuing a grading permit, did not previously approve either location, a Grading Environmental Assessment shall be submitted to the Planning Director and the Environmental Programs Director for review and comment and to the Building and Safety Department Director for approval. Additionally, if the movement of import/export occurs using county roads, review and approval of the haul routes by the Transportation Department will be required.

60.E HEALTH 001
PRIOR TO GRADING PRMT ISSUANCE

GRADE - SEPTIC

Status: RECOMMND **Conditions:** Informational

This Department has reviewed the soils data available in the ACADEMY percolation test dated 4-12-05 proj number 0503-2708-P and we will permit Domestic Sewage Disposal from the individual parcel/lot as follows: For each 100 gallons of septic tank capacity, 45 sq. ft. of bottom area of leach lines only POSSIBLE WATER WELLS IN THE VICINITY OF THE PROPOSED INSTALLED LEACH LINES. DEH STAFF TO VERIFY SET BACK DURING LOT INSPECTION SUBMITTAL. UPON SEWER AVAILABILITY THE LOTS SHALL BE CONNECTED TO SANITARY SEWER. The size of the septic tank and effluent disposal area shall be determined based upon the occupancy of each individual parcel. If any grading is performed affecting the areas of subsurface sewage disposal systems, the noted rate assigned by the Department of

Environmental Health is nullified. Please be aware that in accordance with Assembly Bill 885, the State Water Resources Control Board will be adopting in the near future, regulations for the permitting and operation of all onsite sewage treatment systems, including septic tanks. These regulations or standards may require monitoring for these treatment systems including septic tanks.

60.E HEALTH 002
PRIOR TO GRADING PRMT ISSUANCE

GRADE - PLAN REQMENTS

Status: **RECOMMND**

Conditions: **Informational**

The following information shall be addressed, depicted and signed with seal affixed by a Registered Civil Engineer, Geologist with soils percolation expertise on all grading plans where subsurface sewage disposal is intended: 1) The proposed cuts and/or fills in the areas of the sewage disposal systems. 2) The primary sewage disposal system and its 100% expansion. 3) The elevation of the individual building pads in reference to the elevation of the sewage disposal system. 4) The original tile line to be installed and all required expansion area shall be located in a natural undisturbed soil at the depth of the percolation tests performed. 5) On those grading plans prepared by other than the person preparing the feasibility percolation report, a statement must be placed on the plan, signed and with seal, as to the appropriateness of the grading plan with regard to the soils percolation engineer's report and specific to the aforementioned items.

60.E HEALTH 003
PRIOR TO GRADING PRMT ISSUANCE

GRADE - PLAN COPIES & SCALE

Status: **RECOMMND**

Conditions: **Informational**

A copy of the grading plan, duly signed by the soils engineer on a scale not smaller than 1" = 40' with detailed subsurface sewage disposal data to include the 100% expansion, shall be submitted for the Department of Environmental Health review and approval.

60.EPD 001
PRIOR TO GRADING PRMT ISSUANCE

EPD - 30 DAY BURROWING OWL SUR

Status: **RECOMMND**

Conditions: **Informational**

Pursuant to Objective 6 and Objective 7 of the Species Account for the Burrowing Owl included in the Western Riverside County Multiple Species Habitat Conservation Plan, within 30 days prior to the issuance of a grading permit, a pre-construction presence/absence survey for the burrowing owl shall be conducted by a qualified biologist and the results of this presence/absence survey shall be provided in writing to the Environmental Programs Department. If it is determined that the project site is occupied by the Burrowing Owl, take of "active" nests shall be avoided pursuant to the MSHCP and the Migratory Bird Treaty Act. However, when the Burrowing Owl is present, relocation outside of the nesting season (March 1 through August 31) by a qualified biologist shall be required. The County Biologist shall be consulted to determine appropriate type of relocation (active or passive) and translocation sites. Occupation of this species on the project site may result in the need to revise grading plans so that take of "active" nests is avoided or alternatively, a grading permit may be issued once the species has been actively relocated.

If the grading permit is not obtained within 30 days of the survey a new survey shall be required.

60.FLOOD RI 002
PRIOR TO GRADING PRMT ISSUANCE

MAP ADP FEES

Status: RECOMMND **Conditions:** Informational

Parcel Map 33510 is located within the limits of the Perris Valley Area Drainage Plan for which drainage fees have been adopted.

Drainage fees shall be paid with cashier's check or money order only to the District at the time of the issuance of grading permits for the approved parcels or at the time of issuance of building permits if no grading permits are issued for the parcels and may be paid, at the option of the land owner, in pro rata amounts. The amount of the drainage fee required to be paid shall be the amount that is in effect for the particular Area Drainage Plan at the time of issuance of the grading permits or issuance of the building permits if grading permits are not issued.

60.PLANNING 002
PRIOR TO GRADING PRMT ISSUANCE

MAP - BUILDING PAD GRADING

Status: RECOMMND **Conditions:** Informational

All grading for any proposed new dwellings and/or accessory buildings shall occur within the approved building pad sites shown on the TENTATIVE MAP. Any additional grading for secondary units, assesory buildings, etc., shall only be permitted/allowed pursuant to review by the building and safety: Grading Division and/or Planning Department as determined by the Director of Building and Safety and Planning.

60.PLANNING 010
PRIOR TO GRADING PRMT ISSUANCE

MAP - PLANNING DEPT REVIEW

Status: RECOMMND **Conditions:** Informational

As part of the plan check review of the proposed grading plan for the subject property, the Department of Building and Safety - Grading Division shall submit a copy of the proposed grading plan, along with the applicable Log/Permit Numbers for reference, to the ounty Planning Department to be reviewed for compliance with the approved tentative map.

60.PLANNING 016
PRIOR TO GRADING PRMT ISSUANCE

MAP - SKR FEE CONDITION

Status: RECOMMND **Conditions:** Informational

Prior to the issuance of a grading permit, the land divider/permit holder shall comply with the provisions of Riverside County Ordinance No. 663, which generally requires the payment of the appropriate fee set forth in that ordinance. The amount of the fee required to be paid may vary depending upon a variety of factors, including the type of development application submitted and the applicability of any fee reduction or exemption provisions contained in Riverside County Ordinance No. 663. Said fee shall be calculated on the approved development project which is anticipated to be 4.84 acres (gross) in accordance with the TENTATIVE MAP. If the development is subsequently revised, this acreage amount may be modified in order to reflect the revised development project acreage amount. In the event Riverside County Ordinance No. 663 is rescinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 663 be rescinded and superseded by a subsequent mitigation fee ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

60.PLANNING 017
PRIOR TO GRADING PRMT ISSUANCE

MAP - FEE BALANCE

Status: RECOMMND **Conditions:** Informational

Prior to issuance of grading permits, the Planning Department shall determine if the deposit based fees are in a negative balance. If so, any outstanding fees shall be paid by the applicant/developer.

60.PLANNING 018
PRIOR TO GRADING PRMT ISSUANCE

MAP - GRADING PLAN REVIEW

Status: RECOMMND **Conditions:** Informational

The land divider/permit holder shall cause a plan check application for a grading plan to be submitted to the ounty T.L.M.A - Land Use Division for review by the County Department of Building and Safety - Grading Division. Said grading plan shall be in conformance with the approved tentative map, in ompliance with County Ordinance No. 457, and the conditions of approval for the tentative map.

60.PLANNING 020
PRIOR TO GRADING PRMT ISSUANCE

MAP - NPDES COMPLIANCE (2)

Status: RECOMMND **Conditions:** Informational

Since this project will disturb one (1) or more acres, it will require a National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the State Water Resources Control Board. Clearance for grading shall not be given until either the district or the Department of Building and Safety has determined that the project has complied with the current County requirements regarding the NPDES Construction General Permit.

60.PLANNING 021
PRIOR TO GRADING PRMT ISSUANCE

MAP- Lkvw/Nuevo Imp Program

Status: RECOMMND **Conditions:** Informational

This project lies within the proposed Lakeview Nuevo Implementation Program and/or its area of benefit. A mechanism for the funding of the Lakeview Nuevo Implementation Program is being established and will be applicable to developments within the program boundary and area of benefit. The project proponent agrees to make application for and pay their fair apportionment of the assessments, or pay the unit fees at such time as they become established as approved by the county.

60.PLANNING 022
PRIOR TO GRADING PRMT ISSUANCE

MAP- NATIVE AM. MONITORING

Status: RECOMMND **Conditions:** Informational

Tribal monitor(s) from the appropriate Native American Tribe(s) shall be required on-site during all ground disturbing activities, including grading, stockpiling of materials, engineered fill, rock crushing, etc. The land divider/permit holder shall retain a qualified tribal monitor from the Soboba Tribe. Prior to issuance of a grading permit, the developer shall submit a copy of a signed contract between the the above mentioned Tribe and the land divider/permit holder for the monitoring of the project, and which addresses teh treatment of cultural resources, to the Planning Department and to the Department of Building and Safety. The Native American Monitor(s) shall

have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow recovery of cultural resources.

60.PLANNING 023
PRIOR TO GRADING PRMT ISSUANCE

MAP - ARCHAEOLOGIST RETAINED

Status: RECOMMND **Conditions:** Informational

Prior to the issuance of rough grading permits, a qualified archaeologist (pursuant to the Secretary of the Interior's standards and guidelines) shall be retained by the land ivider for consultation and comment on the proposed grading with respect to potential impacts to archaeological and/or cultural resources. Should the archaeologist, after consultation with the appropriate Native American tribe(s), find the potential is high for impact to archaeological resources, cultural resources and/or sacred sites, a pre-grading meeting between the archaeologist, the Native American tribal representative (s), and the excavation and grading contractor shall take place to discuss appropriate grading and ground disturbing methods within and around those archaeologically and culturally sensitive areas within the project. During grading operations, when deemed necessary in the professional opinion of the retained archaeologist (and/or as determined by the Planning Director), the archaeologist, the archaeologist's on-site representative(s) and the Native American tribal respresentative(s) shall actively monitor all project related grading and shall have the authority to temporarily divert, redirect, or halt grading activity to allow recovery of archaeological and/or cultural resources. Prior to the issuance of grading permits, the NAME, ADDRESS and TELEPHONE NUMBER of the retained archaeologist shall be submitted to the Planning Department and the B&S Grading Division. If the retained archaeologist, after consultation with the appropriate Native American tribe, finds no potential for impacts to archaeological and/or cultural resources, a letter shall be submitted to the Planning Department certifying this finding by the retained qualified archaeologist.

60.PLANNING 024
PRIOR TO GRADING PRMT ISSUANCE

MAP*- CULTURAL RES. DISP. AG.

Status: RECOMMND **Conditions:** Informational

Prior to grading permit issuance, the applicant shall provide the Planning Director evidence of an agreement with the appropriate Native American Tribe that addresses the treatment and disposition of all cultural resources impacted as a result of the development. The Developer shall relinquish ownership of all cultural resources, including all archaeological artifacts that are of Native American origin, found in the project area to the Soboba Tribe for proper treatment and disposition.

80.BS GRADE 001
PRIOR TO BLDG PRMT ISSUANCE

MAP-G3.1NO B/PMT W/O G/PMT

Status: RECOMMND **Conditions:** Informational

Prior to issuance of any building permit, the property owner shall obtain a grading permit and/or approval to construct from the Grading Divisin of the Building and Safety Department.

80.FIRE 001
PRIOR TO BLDG PRMT ISSUANCE

MAP-#50C-TRACT WATER VERIFICA

Status: RECOMMND **Conditions:** Informational

The required water system, including all fire hydrant(s), shall be installed and accepted by the appropriate water agency and the Riverside County Fire Department prior to any combustible building material placed on an individual lot. Contact the

Riverside County Fire Department to inspect the required fire flow, street signs, all weather surface, and all access and/or secondary. Approved water plans must be a the job site.

80.FLOOD RI 002
PRIOR TO BLDG PRMT ISSUANCE

MAP ADP FEES

Status: RECOMMND **Conditions:** Informational

Parcel Map 33510 is located within the limits of the Perris Valley Area Drainage Plan for which drainage fees have been adopted.

Drainage fees shall be paid with cashier's check or money order only to the District at the time of the issuance of grading permits for the approved parcels or at the time of issuance of building permits if no grading permits are issued for the parcels and may be paid, at the option of the land owner, in pro rata amounts. The amount of the drainage fee required to be paid shall be the amount that is in effect for the particular Area Drainage Plan at the time of issuance of the grading permits or issuance of the building permits if grading permits are not issued.

80.PLANNING 002
PRIOR TO BLDG PRMT ISSUANCE

MAP - UNDERGROUND UTILITIES

Status: RECOMMND **Conditions:** Informational

All utility extensions within a lot shall be placed underground.

80.PLANNING 008
PRIOR TO BLDG PRMT ISSUANCE

MAP - SCHOOL MITIGATION

Status: RECOMMND **Conditions:** Informational

Impacts to the Val Verde Unified School District shall be mitigated in accordance with California State law.

80.PLANNING 010
PRIOR TO BLDG PRMT ISSUANCE

MAP - FEE BALANCE

Status: RECOMMND **Conditions:** Informational

Prior to issuance of building permits, the Planning Department shall determine if the deposit based fees are in a negative balance. If so, any outstanding fees shall be paid by the applicant/developer.

80.PLANNING 011
PRIOR TO BLDG PRMT ISSUANCE

MAP- Lkvw/Nuevo Imp Program

Status: RECOMMND **Conditions:** Informational

This project lies within the proposed Lakeview Nuevo Implementation Program and/or its area of benefit. A mechanism for the funding of the Lakeview Nuevo Implementation Program is being established and will be applicable to developments within the program boundary and area of benefit. The project proponent agrees to make application for and pay their fair apportionment of the assessments, or pay the unit fees at such time as they become established as approved by the county.

80.PLANNING 012
PRIOR TO BLDG PRMT ISSUANCE

MAP - MdCntyPk Noise Study Req

Status: RECOMMND **Conditions:** Informational

The development is within one mile of the proposed alignment for the Mid-County Parkway. To insure that the development meets the General Plan standards for noise the applicant shall submit a noise study if the following has occurred prior to the issuance of any residential building permit:

-The joint Environmental Impact Report (EIR) and the Environmental Impact Statement (EIS) for the Mid-County Parkway have been certified by the Riverside County Transportation Commission (RCTC).

These reports will contain noise level projections for the Mid-County Parkway that this Parcel Map will then be required to mitigate. Upon completion, the noise study shall be submitted to the Planning Department for review. Based on the recommendations contained in the noise study, the Planning Department reserves the right to require further review including, but not limited to, the submittal of a minor change application.

If the building permits related to this Parcel Map have been finaled prior to the completion of the Mid-County Parkway EIR/EIS then a noise study will not be required.

90.BS GRADE 001
PRIOR TO BLDG FINAL INSPECTION

MAP-G4.1E-CL 4:1 OR STEEPER

Status: **RECOMMND** **Conditions:** **Informational**

Plant and irrigate all manufactured slopes steeper than a 4:1 (horizontal to vertical) ratio and 3 feet or greater in vertical height with grass or ground cover; slopes 15 feet or greater in vertical height shall be planted with additional shrubs or trees as approved by the Building & Safety Department's Erosion Control Specialist.

90.BS GRADE 002
PRIOR TO BLDG FINAL INSPECTION

MAP-G4.2 1/2"/FT/3FT MIN

Status: **RECOMMND** **Conditions:** **Informational**

Finish grade shall be sloped to provide proper drainage away from all exterior foundation walls. The slope shall be not less than one-half inch per foot for a distance of not less than 3 feet from any point of exterior foundation. Drainage swales shall not be less than 1 1/2 inches deeper than the adjacent finish grade at the foundation.

90.FIRE 001
PRIOR TO BLDG FINAL INSPECTION

MAP - VERIFICATION INSPECTION

Status: **RECOMMND** **Conditions:** **Informational**

PRIOR TO MOVING INTO THE RESIDENCE YOU SHALL CONTACT THE RIVERSIDE COUNTY FIRE DEPARTMENT TO SCHEDULE AN INSPECTION FOR THE ITEMS THAT WERE SHOWN AT THE BUILDING PERMIT ISSUANCE IE: ACCESS, ADDRESSING, WATER SYSTEM AND/OR FUEL MODIFICATION.

Riverside office (951)955-4777 Indio office (760)863-8886

90.PLANNING 004
PRIOR TO BLDG FINAL INSPECTION

MAP - QUIMBY FEES (2)

Status: **RECOMMND** **Conditions:** **Informational**

The land divider/permit holder shall present certification to the Riverside County Planning Department that payment of parks and recreation fees and/or dedication of land for park use in accordance with Section 10.35 of County Ordinance No. 460 has taken place. Said certification shall be obtained from the County of Riverside Economic Develoment Agency (EDA) for CSA No. 146A.

90.PLANNING 006
PRIOR TO BLDG FINAL INSPECTION

MAP - SKR FEE CONDITION

Status: RECOMMND **Conditions:** Informational

Prior to the issuance of a certificate of occupancy, or upon building permit final inspection, whichever comes first, the land divider/permit holder shall comply with the provisions of Riverside County Ordinance No. 663, which generally requires the payment of the appropriate fee set forth in that ordinance. The amount of the fee required to be paid may vary, depending upon a variety of factors, including the type of development application submitted and the applicability of any fee reduction or exemption provisions contained in Riverside County Ordinance No. 663. Said fee shall be calculated on the approved development project which is anticipated to be 4.84 acres (gross) in accordance with TENTATIVE MAP. If the development is subsequently revised, this acreage amount may be modified in order to reflect the revised development project acreage amount. In the event Riverside County Ordinance No. 663 is rescinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 663 be rescinded and superseded by a subsequent mitigation fee ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

90.PLANNING 007
PRIOR TO BLDG FINAL INSPECTION

MAP- Lkvw/Nuevo Imp Program

Status: RECOMMND **Conditions:** Informational

This project lies within the proposed Lakeview Nuevo Implementation Program and/or its area of benefit. A mechanism for the funding of the Lakeview Nuevo Implementation Program is being established and will be applicable to developments within the program boundary and area of benefit. The project proponent agrees to make application for and pay their fair apportionment of the assessments, or pay the unit fees at such time as they become established as approved by the county.

90.TRANS 001
PRIOR TO BLDG FINAL INSPECTION

MAP - WRCOG TUMF

Status: RECOMMND **Conditions:** Informational

Prior to the issuance of an occupancy permit, the project proponent shall pay the Transportation Uniform Mitigation Fee (TUMF) in accordance with the fee schedule in effect at the time of issuance, pursuant to Ordinance No. 824.

90.TRANS 002
PRIOR TO BLDG FINAL INSPECTION

MAP - LAKEVIEW/NUEVO FUNDING

Status: RECOMMND **Conditions:** Informational

This project is located in the Lakeview/Nuevo area. An Infrastructure Phasing Plan (IPP) has been prepared for the Lakeview/Nuevo area. To fund necessary roadway improvements beyond those in the TUMF program, the formation of a Road and Bridge Benefit District (RBBD) is under active consideration. This project will be

required to participate in the RBBD and to pay its share of RBBD fees, including an interim RBBD fee as determined by the County, prior to any occupancy.

Conditions of Approval for Another Case

Enter Case Number:

Submit Clear Form

Go Back To Previous Page

CONDITIONS OF APPROVAL FOR SP00342 Online Services

Results for SP00342 as of 6/16/2011 11:42:57 AM

10. EVERY 001 GENERAL CONDITIONS — **SP - Hold Harmless (1)** — **Status:** INEFFECT — **Conditions:** Informational

The applicant or any successor-in-interest shall defend, indemnify, and hold harmless the County of Riverside (COUNTY), its agents, officers, or employees from any claim, action, or proceeding against the COUNTY, its agents, officers, or employees to attack, set aside, void or annul an approval of the COUNTY, its advisory agencies, appeal boards, or legislative body concerning this SPECIFIC PLAN. The COUNTY will promptly notify the applicant of any such claim, action, or proceeding against the COUNTY and will cooperate fully in the defense. If the COUNTY fails to promptly notify the applicant of any such claim, action, or proceeding or fails to cooperate fully in the defense, the subdivider shall not, thereafter, be responsible to defend, indemnify, or hold harmless the COUNTY.

10. EVERY 002 GENERAL CONDITIONS — **SP - Definitions** — **Status:** INEFFECT — **Conditions:** Informational

The words identified in the following list that appear in all capitals in the attached conditions of Specific Plan No. 342 shall be henceforth defined as follows:

SPECIFIC PLAN = Specific Plan No. 342, Dated June 2009.

CHANGE OF ZONE = Change of Zone No. 7055.

GPA = Comprehensive General Plan Amendment No. 720, Land Use, 721 Circulation.

DA = Development Agreement No. 73.

EIR = Environmental Impact Report No. 471.

VILLAGE or VILLAGES = A SPECIFIC PLAN's Planning District or large planning area. The intent of the VILLAGE is to break down a very large Specific Plan into manageable sections or pieces. Each VILLAGE should be about the size of a traditional Specific Plan.

VILLAGE REFINEMENT PLAN = a substantial conformance to the SPECIFIC PLAN Design Guideline Document is to be submitted separately for each VILLAGE within the SPECIFIC PLAN. The VILLAGE REFINEMENT PLAN and/or the Conditions of Approval may address features that are specific to an individual VILLAGE and may not affect the entire SPECIFIC PLAN.

TOTAL DWELLING UNIT TRACKING MATRIX = A chart for purposes of tracking the total build out of the SPECIFIC PLAN maintained by TLMA Counter Services Divison. The matrix shall differentiate between individual building permits and the total number of dwelling units that are represented by the building permits that have been issued for the entire Specific Plan.

BUILDING PERMITS = the number of dwelling units constructed within an implementing project. Any condition of approval that uses the term "building permit"

to trigger an event or to cause another action to take place shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

10. EVERY 003 GENERAL CONDITIONS — **SP - SP Document** — Status: **INEFFECT** — Conditions: **Informational**

Specific Plan No. 342 shall include the following:

a. Specific Plan Document, which shall include:

1. Board of Supervisors Specific Plan Resolution including the Mitigation Reporting/Monitoring Program 2. Conditions of Approval. 3. Specific Plan Zoning Ordinance. 4. Land Use Plan in both 8 1/2" x 11" black-and-white and 11" x 17" color formats. 5. Specific Plan text. 6. Descriptions of each VILLAGE in both graphical and narrative formats. 8. The sample VILLAGE REFINMENT PLAN for the Resort VILLAGE.

b. Final Environmental Impact Report No. 471 Document, which must include, but not be limited to, the following items:

1. Mitigation Monitoring/Reporting Program. 2. Draft EIR 3. Comments received on the Draft EIR either verbatim or in summary. 4. A list of person, organizations and public agencies commenting on the Draft EIR. 5. Responses of the County to significant environmental point raised in the review and consultation process. 6. Technical Appendices

If any specific plan conditions of approval differ from the specific plan text or exhibits, the specific plan conditions of approval shall take precedence.

10. EVERY 004 GENERAL CONDITIONS — **SP - Ordinance Requirements** — Status: **INEFFECT** — Conditions: **Informational**

The development of the property shall be in accordance with the mandatory requirements of Planning Department Standard Operating Procedures and all Riverside County ordinances including Ordinance Nos. 348 and 460 and state laws; and shall conform substantially with the adopted SPECIFIC PLAN as filed in the office of the Riverside County Planning Department, unless otherwise amended.

10. EVERY 005 GENERAL CONDITIONS — **SP - Limits of SP DOCUMENT** — Status: **INEFFECT** — Conditions: **Informational**

No portion of the SPECIFIC PLAN which purports or proposes to change, waive or modify any ordinance or other legal requirement for the development shall be considered to be part of the adopted specific plan. Notwithstanding to above, the design guidelines and development standards of the SPECIFIC PLAN for hillside development and grading shall apply in place of more general County guidelines and standards. The project shall conform to all standard operating procedures of the Planning Department.

10.BS GRADE 002 GENERAL CONDITIONS — **SP-GSP-1 ORD. NOT SUPERSEDED** — Status: **INEFFECT** — Conditions: **Informational**

Anything to the contrary, proposed by this Specific Plan, shall not supersede the following: All grading shall conform to the California Building code, County General

Plan, Ordinance 457 and all other relevant laws, rules and regulations governing grading in Riverside County.

10.BS GRADE 003
GENERAL CONDITIONS

SP-GSP-2 GEO/SOIL TO BE OBEYED

Status: **INEFFECT**

Conditions: **Informational**

All grading shall be performed in accordance with the recommendations of the included -County approved- geotechnical/soils reports for this Specific Plan.

10.BS GRADE 004
GENERAL CONDITIONS

SP-ALL CLEARNC'S REQ'D B-4 PMT

Status: **INEFFECT**

Conditions: **Informational**

Prior to issuance of a grading permit, all certifications affecting grading shall have written clearances. This includes, but is not limited to, additional environmental assessments, erosion control plans, geotechnical/soils reports, and departmental clearances.

10.BS GRADE 005
GENERAL CONDITIONS

SP-NO GRADING & SUBDIVIDING

Status: **INEFFECT**

Conditions: **Informational**

If grading of the entire - or any portion there of - Specific Plan site is proposed, UNDER A SUBDIVISION OR LAND USE CASE ALREADY APPROVED FOR THIS SPECIFIC PLAN, at the same time that application for further subdivision of any of its parcels is being applied for, an exception to Ordinance 460, Section 4.5.B, shall be obtained from the Planning Director, prior to issuance of the grading permit (Ord. 460 Section 3.1). THIS EXCEPTION WILL NOT APPLY TO ANY CASE HAVING ONLY AN APPROVED SPECIFIC PLAN.

10.E HEALTH 001
GENERAL CONDITIONS

GENERAL COMMENTS - SP 342

Status: **INEFFECT**

Conditions: **Informational**

Department of Environmental Health (DEH) has reviewed SP 342 Screen Check#3 and offers the following comments:

1) Eastern Municipal Water District (EMWD) water and sewer service will be proposed for all habitable structures. It is the responsibility of the developer to ensure that all requirements associated with obtaining EMWD water and sewer are met. 2) Per current Memorandum of Understanding (MOU) between EMWD and the County of Riverside, no "will-serve" letters from EMWD for water and sewer service are required at this time. If this current MOU is either rescinded or revised, the developer will be required to comply with any necessary changes. 3) If any public food facility and/or public swimming pool is proposed, the developer shall contact Department of Environmental Health, District Environmental Services (DES) Division at (951) 358-5172 to obtain information regarding DES plan check and permitting requirements.

10.FIRE 001
GENERAL CONDITIONS

SP-#56-IMPACT MITIGATION

Status: **INEFFECT**

Conditions: **Informational**

The project proponents shall participate in the fire protection impact mitigation program as adopted by the Riverside County Board of Supervisors.

10.FIRE 003
GENERAL CONDITIONS

SP-#95-HAZ FIRE AREA

Status: **INEFFECT**

Conditions: **Informational**

A portion of the specific plan is located in the "Hazardous Fire Area" of Riverside County as shown on a map on file with the Clerk of the Board of Supervisors. Any building constructed on lots created by this project shall comply with the special construction provisions contained in Riverside County Ordinance 787.

10.FIRE 004 GENERAL CONDITIONS — **SP-#71-ADVERSE IMPACTS** — Status: **INEFFECT** — Conditions: **Informational**

The proposed project will have a cumulative adverse impact on the Fire Department's ability to provide an acceptable level of service. These impacts include an increased number of emergency and public service calls due to the increased presence of structures and population. The project proponents/develpers shall participate in the development Impact fee program as adopted by the Riverside County Board of Supervisors to mitigate a portion of these impacts. This will provide funding for capitol improvements such as land/equipment purchases and fire station construction. The Fire Department reserves the right to negotiate developer agreements associated with the development of land and/or construction of fire facilities to meet service demands through the regional integrated fire protection response system.

10.FIRE 005 GENERAL CONDITIONS — **SP-#86-WATER MAINS** — Status: **INEFFECT** — Conditions: **Informational**

All water mains and fire hydrants providing required fire flows shall be constructed in accordance with the appropriate sections of Riverside County Ordinance 460 and/or No.787, subject to the approval by the Riverside County Fire Department.

10.FIRE 006 GENERAL CONDITIONS — **SP-#96-ROOFING MATERIAL** — Status: **INEFFECT** — Conditions: **Informational**

All buildings shall be constructed with fire retardant roofing material as described in section 1503 of the Uniform Building Code. Any wood shingles or shakes shall have a Class B rating and shall be approved by the Fire Department prior to installation.

10.FIRE 007 GENERAL CONDITIONS — **SP-#97-OPEN SPACE** — Status: **INEFFECT** — Conditions: **Informational**

Prior to approval of any development for lands adjacent to open space areas, a fire protection/vegetaion management (fuel modificatin) plan shall be submitted to the Riverside County Fire Department for reveiw and approval. The Homeowner's Association or appropriate management entity shall be responsible for maintaining the elements to the plan.

10.FIRE 008 GENERAL CONDITIONS — **SP-#85-FINAL FIRE REQUIRE** — Status: **INEFFECT** — Conditions: **Informational**

Final fire protection requirements and impact mitigation measures will be determined when specific project plans are submitted.

10.FIRE 009 GENERAL CONDITIONS — **SP-#100-FIRE STATION** — Status: **INEFFECT** — Conditions: **Informational**

Based on national fire standards, one new fire station and/or engine company could be required for every 2,000 new dwelling units, or 3.5 million square feet of commercial/industrial occupancy. Given the project's proposed development plan, up to 1 fire stations may be needed to meet anticipated service demands, given project densities.

10.FIRE 010 GENERAL CONDITIONS — **SP-#101-DISCL/FLAG LOT** — Status: **INEFFECT** — Conditions: **Informational**

1) FLAG LOTS WILL NOT BE PERMITTED BY THE FIRE DEPARTMENT.

) A portion of this project lies within the VERY HIGH FIRE HAZARD SEVERITY ZONE.

3) A fire fuel analysis of the open space/wildlands within and outside the project area may be required prior to submitting a fuel modification plan.

NOTICE: The transferor of real property shall disclose to the transferee that this project lies within a VERY HIGH FIRE HAZARD area.

10.FIRE 011 GENERAL CONDITIONS — **SP-#47 SECONDARY ACCESS** — Status: **INEFFECT** — Conditions: **Informational**

In the interest of Public Safety, the project shall provide an Alternate or Secondary Access(s) as stated in the Transportation Department Conditions. Said Alternate or Secondary Access(s) shall have concurrence and approval of both the Transportation and Fire Departments and shall be maintained through out any phasing.

10.FLOOD RI 002 GENERAL CONDITIONS — **SP FLOOD HAZARD REPORT** — Status: **INEFFECT** — Conditions: **Informational**

Specific Plan 342, The Villages of Lakeview, proposes a mixed land use community of residential and commercial uses, parks, public facilities, and open space on 2,789 acres. The site is located in the Lakeview area along the Ramona Expressway between the Lakeview Mountains to the south and the San Jacinto River to the north. The specific plan is tentatively divided into five development phases (1A, 1B, 2, 3A, and 3B) each consisting of several planning areas.

EXISTING CONDITION The topography of the Specific Plan is made up of the rugged foothills around Mt. Rudolph in the southeast and an alluvial plain over the rest of the site that gently slopes down to the San Jacinto River. At the northwest corner of the specific plan, a portion of Phase 1A is within the 100-year floodplain limits of the San Jacinto River, as delineated on Community Panel No. 06065C1435G of the Flood Insurance Rate Maps (FIRM), issued in conjunction with the National Flood Insurance Program (NFIP) administered by the Federal Emergency management Agency (FEMA). Furthermore, Phase 1A and the western edge of Phase 1B are within the Zone X floodplain limits shown on FIRM Panel 06065C 1435G. This floodplain is caused by storm flows discharged from a large canyon that drains the Lakeview Mountains. Although Lakeview Dam intercepts stormwater from this canyon, stormwater discharged from the dam's outlet, albeit at much lower flow rates, still impact the site. The rest of the alluvial plain receives runoff from the smaller canyons that drain Mt. Rudolph. Storm runoff from the canyons sheet flows across a wide swath of the project site towards Ramona Expressway. About fourteen culverts, ranging in size from 24-inches to a pair of 72 x 45-inch squash pipes, convey only the smallest, most frequent storm runoff across Ramona Expressway; larger storm flows

would overtop it.

Portions of Phases 1A, 1B and 2 are within the boundaries of the Lakeview/Nuevo Area Drainage Plan (ADP) for which drainage fees have been established by the Riverside County Board of Supervisors. Applicable ADP fees will be due (in accordance with the Rules and Regulations for Administration of Area Drainage Plans) prior to the issuance of grading or building permits, whichever occurs first. Although the current fee for this ADP is $2,093 per acre (or per lot for parcels larger than one acre), the fee due will be based on the fee in effect at the time of payment. The fee is payable to the Flood Control District by cashier's check or money order only. The District will not accept personal or company checks.

ULTIMATE CONDITION The ultimate master drainage plan is proposed in Figure B.3.11D. Line D of the District's Lakeview MDP would be constructed to convey the outflow from the District's Lakeview Dam to the existing Nuevo Channel. In addition, a training dike, as proposed in the Lakeview MDP, would be constructed to direct some of the tributary flows to Lakeview Dam. Storm flows from the other canyons would be collected into debris basins sited at the canyon mouths. A system of underground storm drains and open channels would convey the discharge from the debris basins and the on-site flows of Phases 3A, 3B and the eastern half of Phase 2 due north to the Ramona Expressway. Storm flows from these areas would cross the Ramona Expressway in culverts at seven separate locations. It is assumed that discharges from the storm drains would be spread out to mimic the natural drainage pattern of the area to the satisfaction of RCFCD. If the developer is unable to mimic the natural drainage patterns as described above, the developer may have to construct offsite facilities to convey the flows to an adequate outlet (for example, past the existing dairy to the San Jacinto River).

On-site flows from Phases 1A, 1B and the western half of Phase 2 are conveyed by storm drains, to Central Park basin to open channels to a water quality basin at the northwest corner of the specific plan where they are discharged into the San Jacinto River floodplain. A portion of the detention basin is depicted on Metropolitan Water District's property; if use of this property cannot be obtained then the detention basin shall be shifted into Central Park (PA 39) as approved by RCFCD. At the northwest corner of the project, an adequate outlet for the channel shall be provided. The unlined open channel north of Ramona Expressway would also serve as a park. The maintenance of the park facilities shall be resolved early in the design process.

INTERIM IMPROVEMENTS Given a development of this size and scope, it is unrealistic to expect all of the elements in the master drainage plan to be constructed with the first house. Thus, a series of conceptual drainage plans that correspond to the development of the five phases is proposed. These plans necessarily include what we will call interim facilities; interim in that even though they may exist in the ground for many years, they will be eventually replaced with the ultimate improvements depicted in the master drainage plan. The interim drainage plans shall also consider protection of the existing Ramona Expressway and the Expressway improvements which will be phased in over the development of the project. For the protection of the existing Ramona Expressway, the project proposes to construct facilities, meeting district design and maintenance standards. These facilities may include a series of interim detention ponds/sumps that would be sized to hold storm-flow from the 100-year and smaller events, such that the rate of water released across Ramona

Expressway is kept below the existing natural flow condition. These interim basins would be constructed as needed when the upstream natural drainage pattern is modified by grading and development.

The conceptual drainage plans for each phase are presented in Exhibits B.3.11G through B.3.11K. The size, type, and alignment of the facilities will likely be modified as the result of specific development proposals. Each phase of the Specific Plan shall stand alone and shall construct the necessary drainage facilities.

Phase 1A Interim Drainage Plan (Exhibit B.3.11G to be replaced by Phase 1A exhibit) 1)Prior to the issuance of any grading permit or recordation, whichever comes first, of any final map with lots within the Zone A San Jacinto River floodplain, a Conditional Letter of Map Revision shall be obtained from FEMA. 2)Phase 1A planning areas shall be protected from the 100-year storm water which includes the outflow from the Lakeview dam outlet by constructing on-site storm drain facilities on the phase 1A south boundary along the north side of Ramona expressway. This facility will include a combination of open channel and underground facility and will outlet into Line A. 3) Prior to the issuance of any grading permit or recordation of any final map within Phase 1A, obtain approved plans for all of Line A as shown on Exhibit B.3.11G subsequently replaced by Phase 1A exhibit., including the collection facility on the south side of Ramona Expressway; execute bond agreements and cooperative agreements for the facilities; and obtain off-site rights of way to the satisfaction of the District.

Phase 1B Interim Drainage Plan (Exhibit B.3.11H)

Significant interim facilities would be constructed with this phase. At the time of the development of the southeast corner of Phase 1B (which drains to Lines C and D-1), the developer proposes to convey the flows discharged from those storm drains in an unlined channel to a RCB crossing the MWD aqueduct. From there, the channel would daylight and flows spread out but then the flows would be recollected in a series of large interim detention ponds/sumps. These interim detention ponds/sumps would be sized to hold storm-flows from less than 100-year event such that the depth and rate of water released across Ramona Expressway is kept at or below the maximum allowable for safe travel in accordance with Transportation Department standards. Transportation has agreed that these basins would provide an acceptable level of protection for the existing Ramona Expressway. The detention ponds/sumps would be connected to Line A by a low flow channel and water could be pumped from the basin to be directed there.

1)Prior to issuance of any grading permit or recordation, whichever occurs first, of any final map within Planning Areas west of 5th Street (SS Boulevard and RR Street) if necessary proper interim drainage facilities will be constructed as approved by RCFC and WCD. 2)Prior to the issuance of any grading permit or recordation, whichever comes first, of any final map within the Planning Areas east of 5th Street (SS Boulevard and RR Street), the developer shall obtain approved construction drawings for Lakeview MDP Line D from Lakeview Dam to Nuevo Channel, and for the collector levee adjacent to Lakeview Dam; execute bond agreements and cooperative agreements for the facilities; and obtain off-site rights of way to the satisfaction of the District. 3)Prior to the issuance of any grading permit or recordation, whichever comes first, of any final map that drains to the Specific Plan's Line A and A7 backbone system, the developer shall obtain approved construction drawings for Line A and A-7 to an adequate outlet in the San Jacinto River; execute bond agreements and cooperative agreements for the facilities; and obtain off-site rights of way to the satisfaction of the District. 4)Prior to the issuance of any grading permit or recordation, whichever comes first, of any final map of the portion of Phase 1B that drains to Lines C and D-1, the developer shall obtain approved construction drawings

for Lines C and D-1, and convey the flows in interim channels safely past the MWD aqueduct to large interim detention ponds/sumps adjacent to Ramona Expressway. A viable and sustainable maintenance mechanism shall be provided for the interim facilities. The Developer shall obtain approved construction drawings for Debris Basin #1 prior to the issuance of any grading permit or recordation of final map, of the portion of Phase 1B that drains to Line D that are impacted by flows discharged from the hillside

Phase 2 Interim Drainage Plan (Exhibit B.3.11I)

During the development of Phase 2, it is likely The Villages of Lakeview will pass the 4001st occupancy permit milestone which triggers the widening of the Ramona Expressway from 5th Street to Warren Road. When Ramona Expressway is widened from two lanes to four lanes, the ultimate drainage facilities shall be constructed and the interim detention ponds/sumps shall not be used for Flood Control proposes. The outlet for the ultimate facilities (Lines D & E) shall duplicate the existing drainage patterns and flow rates; or as directed by the General Manager-Chief Engineer.

Moreover, it seems probable that the development of Planning Areas 46, 50, 51 and 52 would require additional interim drainage facilities to collect storm runoff discharged by the canyons to the south. These interim collection facilities shall meet District design and maintenance standards.

Finally, the detention basin proposed partially on Metropolitan Water District's property can be shifted into Central Park (PA 39) if the developer cannot obtain rights to use MWD's property.

Since the timing of individual developments in Phase 2 cannot be set, and therefore the related drainage improvements may be any combination of ultimate and interim facilities, the District will defer writing particular conditions of approval until the time such development applications are submitted. However, the general guidance of the preceding three paragraphs will apply.

Phase 3A Interim Drainage Plan (Exhibit B.3.11J)

1)The development of Planning Area 75 may require the construction of interim drainage facilities to collect storm runoff discharged by the canyons to the south. The facilities shall meet District design and maintenance standards. 2)The developer shall obtain approved construction drawings for Debris Basins #8 and #9 prior to the issuance of any grading permit or recordation of final maps in Planning Area 73 that are impacted by flows from their respective canyons. 3)Prior to the issuance of any grading permit or recordation, whichever comes first, of any final map that drains to the Specific Plan's Line B-1, the developer shall obtain approved construction drawings for Line B-1 to an adequate outlet on the north side of the Ramona Expressway; execute bond agreements and cooperative agreements for the facility; and obtain off-site rights of way to the satisfaction of the District. 4)Prior to the issuance of any grading permit or recordation, whichever comes first, of any final map that drains to the Specific Plan's Line B-2, the developer shall obtain approved construction drawings for Line B-2 to an adequate outlet on the north side of the Ramona Expressway; execute bond agreements and cooperative agreements for the facility; and obtain off-site rights of way to the satisfaction of the District. 5)Prior to the issuance of any grading permit or recordation, whichever comes first, of any final map that drains to the Specific Plan's Lines B-3 and B-4, the developer shall obtain approved construction drawings for Lines B-3 and B-4 to an adequate outlet on the north side of the Ramona Expressway; execute bond agreements and cooperative agreements for the facility; and obtain off-site rights of way to the satisfaction of the District. 6)Prior to the issuance of any grading permit or recordation, whichever

comes first, of any final map in Planning Area 77, the developer shall obtain approved construction drawings for a drainage facility that collects the 100-year runoff tributary to the Planning Area from the east and conveys it to an adequate outlet on the north side of the Ramona Expressway; execute bond agreements and cooperative agreements for the facility; and obtain off-site rights of way to the satisfaction of the District. 7) Prior to the issuance of any grading permit or recordation, whichever comes first, of any final map in Planning Areas 29, 31, 33 and 34, the developer shall obtain approved construction drawings for Debris Basin #7 and construct Line F to connect it to an adequate outlet; execute bond agreements and cooperative agreements for the facilities; and obtain off-site rights of way to the satisfaction of the District.

Phase 3B Interim Drainage Plan (Exhibit B.3.11K)

1)The development of Planning Areas 61, 62, 63, 64, 67 and 69 may require the construction of interim drainage facilities to collect storm runoff discharged by the canyons to the south. The interim facilities shall meet District design and maintenance standards. 2)The developer shall obtain approved construction drawings for Debris Basins # 1 through #7 prior to the issuance of any grading permit or recordation of final maps in Planning Areas 66 and 68 that are impacted by flows discharged from their respective canyons. 3)Prior to the issuance of any grading permit or recordation, whichever comes first, of any final map that drains to the Specific Plan's Line E, the developer shall obtain approved construction drawings for Line E to an adequate outlet; execute bond agreements and cooperative agreements for the facility; and obtain off-site rights of way to the satisfaction of the District. 4) Prior to the issuance of any grading permit or recordation, whichever comes first, of any final map that drains to the Specific Plan's Line F system, the developer shall obtain approved construction drawings for Lines F-1 and F-2 to an adequate outlet; execute bond agreements and cooperative agreements for the facility; and obtain off-site rights of way to the satisfaction of the District. 5)Prior to the issuance of any grading permit or recordation, whichever comes first, of any final map that drains to the Specific Plan's Line D-2, the developer shall obtain approved construction drawings for Line D-2 to an adequate outlet; execute bond agreements and cooperative agreements for the facility; and obtain off-site rights of way to the satisfaction of the District.

The Specific Plan discusses water quality issues and proposes a regional water Quality feature at the northwest part of the project within Phase 1A. However, each implementing project (development proposal) within the specific plan will be required to submit a preliminary project specific Water Quality management Plan (WQMP). Recommended conditions of approval for the specific development proposals will be issued upon review and approval of the preliminary project specific WQMP. The project specific WQMP shall meet the requirements of the Municipal Separate Sewer System (MS4) permit requirements in effect at the time the specific project is submitted.

10.PLANNING 001 **SP - GEO NO. 1437** **Status:** **INEFFECT** **Conditions:** **Informational**
GENERAL CONDITIONS

County Geologic Report (GEO) No. 1437 was prepared for this project (SP00342) Leighton and Associates, Inc. and is entitled "Preliminary Geotechnical Investigation for Due Diligence Purposes, Proposed 550-Acre Mixed-Use Development, Amway Property, North and South Sides Ramona Expressway, Lakeview, California", and dated May 21, 2003.

1.Leighton & Associates, Inc., October 28, 2004, "Preliminary Geotechnical, Proposed 60-Acre Residential Development, Ross Property, South of the Ramona Expressway and West of Bridge Street, Lakeview Area of Unincorporated Riverside County, California".

2.Leighton & Associates, Inc., July 29, 2004, "Preliminary Geotechnical, Proposed 120 -Acre Mixed Use Residential Development, Lacerte Property, South of the Ramona Expressway near Bridge Street, Lakeview Area of Unincorporated Riverside County, California".

3.Leighton & Associates, Inc., September 17, 2003, "Preliminary Geotechnical Investigation for Due Diligence Purposes, Proposed 437-Acre Mixed-Use Sherman Ranch Development, Vicinity of Lakeview Avenue East and 4th Street, Lakeview, California".

4.Leighton & Associates, Inc., September 17, 2003, "Preliminary Geotechnical Investigation for Due Diligence Purposes, Proposed Mixed-Use Residential Development, 75-Acre Abudayyeh Property, South of Lakeview Avenue East and East of 5th Street, Lakeview, California".

5.Leighton & Associates, Inc., September 22, 2003, "Preliminary Geotechnical Investigation for Due Diligence Purposes, Cannata Mixed-Use Residential Development, 135-Acre Thoroughbred Farm, Northeast of Hansen Avenue and Wolfskill Avenue, Lakeview, California".

6.Leighton & Associates, Inc., December 10, 2004, "Preliminary Rockfall Hazard Evaluation, The Villages of Lakeview, Lakeview Area of Unincorporated Riverside County, California".

7.Leighton & Associates, Inc., January 25, 2006, "Response to County of Riverside Seismic/Geologic/Geotechnical Review Sheet, Specific Pan 342 (County Geologic Report No. 1437), The Villages of Lakeview Project, Lakeview Area of Unincorporated Riverside County, California".

GEO NO. 1437 concluded no sever geologic or soil-related hazards or constraints that would preclude development of the site have been found during the course of the above referenced studies.

The above referenced reports and response are satisfactory with respect to the specific plan and the related environmental impact report for this project. Mitigation measures identified in the above referenced reports shall be incorporated into the environmental impact report.

It should be noted that further geologic/geotechnical review will be required for the following: 1) the planning review phase of each tentative tract and/or development project within this specific plan, and 2) related to site grading and foundations prior to issuance of any grading permits associated with this project.

10.PLANNING 005
GENERAL CONDITIONS

SP - MAINTAIN AREAS & PHASES

Status: **INEFFECT**

Conditions: **Informational**

All planning area and phase numbers shall be maintained throughout the life of the SPECIFIC PLAN, unless changed through the approval of a specific plan amendment or specific plan substantial conformance accompanied by a revision to the complete specific plan document.

10.PLANNING 006 GENERAL CONDITIONS

SP - P.A. DENSITY TRANSPER

Status: INEFFECT **Conditions:** Informational

Any Planning Area is permitted to develop the total number of dwelling units within the range dictated by the Land Use designation. The SPECIFIC PLAN grants additional flexibility in the total number of dwelling units permitted within a given Planning Area through the use of a Substantial Conformance application to the SPECIFIC PLAN, as outlined in Table B.11.5 of the SPECIFIC PLAN.

The SPECIFIC PLAN provides a dwelling unit target count for each Planning Area. This is the applicants estimated unit count. Any dwelling unit counts over or under the dwelling unit target number, as outlined in Table B.11.6 of the SPECIFIC PLAN, shall be added or subtracted from the total number of permitted dwelling units in the Mixed Use Town Center VILLAGE as a whole to ensure the 11,150 dwelling unit total for the SPECIFIC PLAN. Thus, target dwelling units are permitted to be transferred to and from the Mixed Use Town center VILLAGE. Any other transfers require a Specific Plan Amendment.

10.PLANNING 007 GENERAL CONDITIONS

SP - LC LANDSCAPING PLANS

Status: INEFFECT **Conditions:** Informational

All landscaping plans shall be prepared in accordance with Ordinance No. 859 (as adopted and any amendments thereto), the Riverside County Guide to California Landscaping, and Ordinance No. 348, Section 18.12. In the event conflict arises between Ordinance No. 859 and the SPECIFIC PLAN, then the requirements of Ordinance No. 859 shall prevail.

10.PLANNING 008 GENERAL CONDITIONS

SP - HOLD HARMLESS (2)

Status: INEFFECT **Conditions:** Informational

The CSA or similar provider shall indemnify all park and recreational activities and shall be responsible for all maintenance and repair activities of improvements proposed by and for the SPECIFIC PLAN within Planning Areas 40, 44, 65, 74, and 83. This does not include MWD facilities.

10.PLANNING 009 GENERAL CONDITIONS

SP - VRP CONSISTENCY

Status: INEFFECT **Conditions:** Informational

All land subdivisions and Use Permit Applications (CUP's, PUP's, and Plot Plan's) must be consistent with the approved VILLAGE REFINEMENT PLAN of the corresponding VILLAGE, per the SPECIFIC PLAN.

10.PLANNING 010 GENERAL CONDITIONS

SP - DU/BLDNG MTRX

Status: INEFFECT **Conditions:** Informational

Given the size and scope of the project, every condition of approval which uses the term "Building Permit" as a trigger point shall be interpreted to mean "Dwelling Unit." For example a 100 unit apartment complex in one building shall count as 100 BUILDING PERMITS for purposes of these conditions, not simply one building permit.

For purposes of tracking the total build out of the SPECIFIC PLAN, the TLMA Counter Services Divison shall maintain a TOTAL DWELLING UNIT TRACKING MATRIX. The matrix shall differentiate between individual building permits and the total number of dwelling units that are represented by the building permits that have been issued for

the entire Specific Plan. Any condition that requires a specific action at a specified "building permit issuance" shall use the TOTAL DWELLING UNIT TRACKING MATRIX to determine if the threshold has been met.

10.PLANNING 011 GENERAL CONDITIONS
SP - PUB BLDNG STANDARD
Status: **INEFFECT** Conditions: **Informational**

All buildings which require an occupancy permit and are intended to be owned by the County upon completion shall comply with Board Policy H-29.

10.PLANNING 012 GENERAL CONDITIONS
SP - UTL CROSS RAM/MCP
Status: **INEFFECT** Conditions: **Informational**

Plans for any project proposed utilities crossing the Ramona Expressway or the future Mid County Parkway shall be provided to the Riverside County Transportation Commission for consultation.

10.PLANNING 013 GENERAL CONDITIONS
SP - MODS TO CONDITIONS
Status: **INEFFECT** Conditions: **Informational**

Once the SPECIFIC PLAN is approved, in addition to any thresholds listed in the SPECIFIC PLAN, any modifications to the Conditions of Approval that affect the entire SPECIFIC PLAN shall require a SPECIFIC PLAN Amendment. Any modifications to the Conditions of Approval that only affect a specific VILLAGE shall require a Substantial Conformance to the SPECIFIC PLAN.

10.PLANNING 014 GENERAL CONDITIONS
SP - VRP REQUIRED
Status: **INEFFECT** Conditions: **Informational**

Prior to or concurrent with the first approval of any implementing project within any VILLAGE, a Specific Plan Substantial Conformance application for a VILLAGE REFINEMENT PLAN shall be required in accordance with Section B.11a of the SPECIFIC PLAN. No implementing project shall be approved before a VILLAGE REFINEMENT PLAN for the corresponding VILLAGE receives approval from the Planning Commission.

Note: The VILLAGE REFINEMENT PLAN is processed as a Specific Plan Substantial Conformance; however once approved the Planning Director shall create a new LMS development number for the land management tracking system and all implementing projects within the respective VILLAGE shall be attached to the new VILLAGE REFINEMENT PLAN development number. Once the VILLAGE REFINEMENT PLAN is approved, all Specific Plan Conditions of approval shall be transferred into the new development number created by the VILLAGE REFINEMENT PLAN. All dwelling units shall be tracked at the VILLAGE level through the VILLAGE REFINEMENT PLAN development number and through the separate spread sheet referenced in condition 10.Planning.10 DU/BUILDING PERMIT MATRIX. This note shall also not apply if an alternative permit tracking process to LMS is being used.

Once approved, the VILLAGE REFINEMENT PLAN shall be added as an appendix to the SPECIFIC PLAN and act as additional Design Standards for the respective VILLAGE."

10.PLANNING 015 GENERAL CONDITIONS
GEN - IF HUMAN REMAINS FOUND
Status: **INEFFECT** Conditions: **Informational**

The developer/permit holder or any successor in interest shall comply with the following codes for the life of this project:

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin. Further, pursuant to Public Resources Code Section 5097.98 (b), remains shall be left in place and free from disturbance until a final decision as to the treatment and their disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within the period specified by law. Subsequently, the Native American Heritage Commission shall identify the "Most Likely Descendant." The Most Likely Descendant shall then make recommendations and engage in consultation with the County and the property owner concerning the treatment of the remains as provided in Public Resources Code Section 5097.98. Human remains from other ethnic/cultural groups with recognized historical associations to the project area shall also be subject to consultation between appropriate representatives from that group and the County Planning /Director.

10.PLANNING 016 GENERAL CONDITIONS

GEN - INADVERTANT ARCHAEO FIND

Status: **INEFFECT** **Conditions:** **Informational**

The developer/permit holder or any successor in interest shall comply with the following for the life of this project:

If during ground disturbance activities at any phase of project development cultural resources are discovered that were not assessed by the archaeological reports and/or environmental assessment conducted prior to project approval, the following procedures shall be followed. A cultural resources site is defined, for this condition, as being three or more artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its' sacred or cultural importance.

1.All ground disturbance activities within 100 feet of the discovered cultural resource shall be halted until a meeting is convened between the developer, the project archaeologist, the Native American tribal representative(s) and the Planning Director to discuss the significance of the find.

2.At the meeting, the significance of the discoveries shall be discussed and after consultation with the Native American tribal representatives and the archaeologist, a decision is made, with the concurrence of the Planning Director, as to the appropriate mitigation (documentation, recovery, avoidance, etc) for the cultural resource.

3.Further ground disturbance shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate preservation or mitigation measures.

10.PLANNING 017 GENERAL CONDITIONS

SP - ALTERNATIVE ENRGY GEN DVS

Status: **INEFFECT** **Conditions:** **Informational**

All non-residential structures over 10,000 square feet - including but not limited to commercial (retail and office), public (libraries, public community centers, schools and joint-use facilities), and private recreation (buildings owned by an HOA) - shall add renewable energy generating technology to the site or structure to reduce non-renewable electricity by thirty three percent (33%) verses the "Business as Usual" scenario, which is defined as the regulations in effect pursuant to the CARB Scoping

Plan (schools and joint use facilities are subject to Nuview Union School District approval).

10.PLANNING 018	SP - ADDENDA TO CRMP 1 of 3	Status:	Conditions:
GENERAL CONDITIONS		INEFFECT	Informational

Master Cultural Resources Management Plan for Prehistoric Sites for SP 00342 TVOL

This Master Cultural Resources Management Plan shall have addenda submitted and approved by the County prior to approval of any implementing project for SP 00342. This CRMP is based upon recommendations found in Chapter 9 of PD-A-4426.

The Villages of Lakeview (TVOL) Specific Plan will require 15 years or more to complete full build-out of the 2,786-acre project area. Of the 19 prehistoric sites that are eligible for listing in the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP), none is located in the portion of the TVOL project area proposed for the first phase of development, and potential direct and indirect project impacts to eligible prehistoric sites may not occur for several years. Because the TVOL project is a specific plan, essentially a zoning designation, design details and grading plans that are prepared to accompany tentative tract maps and other development projects are not yet available. Therefore, the general processes by which direct and indirect adverse impacts to prehistoric resources will be treated are described in this master Cultural Resources Management Plan (CRMP) for prehistoric sites, which forms the basis for the mitigation measures recommended for impacts to prehistoric sites.

Scope of the CRMP

The TVOL Specific Plan, Figure D-12, describes 19 prehistoric sites, also described in Chapter 6 of PD-A-4426, and recorded as RIV-394, RIV-397, RIV-806, RIV-1842, RIV -2585, RIV-4155, RIV-4156/H, RIV-4158, RIV-8698, RIV-8699, RIV-8700, RIV-8702, RIV-8703, RIV-8704, RIV-8705, RIV-8706, RIV-8707, RIV-8711 and RIV-8712 as well as two isolates, I6 and I7, that could possibly have associated intact subsurface cultural deposits. As noted in Chapter 8 of PD-A-4426, 6 of the 19 prehistoric sites (RIV-1842, RIV-4156/H, RIV-4158, RIV-8702, RIV-8703, and RIV-8706) and a portion of a seventh (RIV-8712) are subject to direct adverse impacts from grading within areas of the project site to be developed. The remaining sites (RIV-394, RIV-397, RIV-806, RIV-2585, RIV-4155, RIV-8698, RIV-8699, RIV-8700, RIV-8704, RIV-8705, RIV-8707, and RIV-8711) and a large portion of RIV-8712 will be preserved in open-space planning areas but may nevertheless be subject to potential indirect effects from the project.

Mitigation measures for impacts to each of the 19 sites based on currently available information are presented in this CRMP, with provisions for these to be updated and refined as individual tentative tracts and other projects within the TVOL Specific Plan are proposed over the life of the plan. These updates will be prepared and submitted to the County of Riverside (County) in the form of addenda to the master CRMP. Each CRMP Addendum will be subject to environmental review for individual tentative tracts pursuant to implementation of the TVOL Specific Plan.

Addenda to the Master CRMP

When a tentative tract or other proposed project within the TVOL Specific Plan area is filed on land containing, or within 500 feet of, prehistoric sites RIV-394, RIV-397, RIV -806, RIV-1842, RIV-2585 RIV-4155, RIV-4156/H, RIV-4158, RIV-8698, RIV-8699, RIV-8700, RIV-8702, RIV-8703, RIV-8704, RIV-8705, RIV-8706, RIV-8707, RIV-8711, or RIV-8712, an addendum to the master CRMP shall be prepared to address

the sites affected by that tentative tract or project. These addenda will include Site Preservation Plans (SPPs) for sites to be preserved in place, and Data Recovery Plans (DRPs) for sites that cannot be avoided and require archaeological excavation as mitigation, as provided by the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations [CCR] Title 14, Section 15126.4[b][3]). As also required by the CEQA Guidelines (CCR Title 14, Sections 15064.5[e] and [f]), each CRMP Addendum shall contain a Discovery Plan with detailed provisions for the treatment of unanticipated discoveries during project construction, including human remains.

Each SPP and DRP will contain a brief description of the site(s) it addresses, review the previous archaeological investigations conducted at the site(s), and consider the TVOL project components that would affect the site(s). Then, with reference to the appropriate research questions and data requirements presented in the research design contained in Chapter 3 of PD-A-4426, the SPP or DRP will present specific measures to be implemented as conditions of project approval.

Consultation

Each CRMP Addendum will be prepared in consultation with the Native American tribes consulted for the project (Tribes), the Tribal Traditional Resources Advisory Committee (TTRAC), and landowners (including the Western Riverside County Regional Conservation Authority [RCA] for sites located within Open Space planning areas), and shall be reviewed and accepted by the County Planning Director as part of the environmental review for each implementing project, as appropriate.

Implementation Schedule

An addendum to the CRMP shall be prepared when a tentative tract or other project that could affect a CRHR- or NRHP-eligible prehistoric site is proposed for approval pursuant to the TVOL Specific Plan. The addendum shall be submitted for review and acceptance to the County archaeologist prior to County approval of the associated tentative tract. Any cultural resource mitigation measures recommended in the CRMP Addendum shall be implemented as conditions of approval for the tract. Mitigation measures involving archaeological fieldwork shall be completed prior to issuance of grading permits, and evidence of completion, in the form of technical reports and curation agreements for disposition of recovered archaeological collections, shall be required prior to issuance of occupancy permits.

Site Preservation Plans

When an archaeological property is proposed for preservation in place as the preferred treatment required by the CEQA Guidelines (CCR Title 14, Section 15126.4 [b][3]), an SPP shall be prepared as part of the CRMP Addendum for the tentative tract that contains or is within 500 feet of that site. An SPP shall, at a minimum, include the following: -Discussion of the CRHR and NRHP significance of a property. -Scientific and cultural values for which the site is being preserved. -A discussion that explains why it is in the public interest to preserve the site. The discussion should indicate whether, why, and how the public may benefit from site preservation. -Examples of other preservation efforts relevant to the property type. -Proposed methods of site protection, including but not limited to fencing, landscaping, public interpretation, or lighting. -Proposed parties to administer and operate site protection measures, including Homeowners' Associations (HOAs), Native American tribes, or other entities. -Evidence that site protection measures, including conservation easements or other deed restrictions, are in place and will be transferred to the RCA or other open-space land holder. -Provisions for ongoing Native American consultation and coordination, if Native American values or concerns are present or are likely to be

present. -Qualifications of key personnel. -Cost proposal. -Any required permits. -Plan for public involvement and educational or interpretive programs, focusing particularly on the community or communities that may have interest in the results.

Data Recovery Plans

The level of archaeological work conducted for this study was sufficient to determine site boundaries and make recommendations for eligibility of sites for listing in the NRHP and CRHR. However, it was not sufficient to develop detailed DRPs for the sites or portions of sites that cannot be avoided and thus require data recovery to mitigate impacts. Therefore, some sites that cannot be avoided will require additional testing before DRPs can be prepared to mitigate impacts.

To develop the DRP for a site, a testing program that involves a subsurface sample of at least 1 percent of the total site area shall be conducted (test excavation of 1 per 100 m2 of site area). Excavation may involve mechanical or hand excavation or a combination of both, depending on the site conditions and the results of consultation with the County and interested Tribes. The purpose of the testing program is to determine the extent and complexity of the subsurface cultural deposits, if any, and to develop an appropriate level of data recovery to address research questions that pertain to data classes contained within the site deposits. The appropriate level of data recovery shall be based on a representative sample of each data class needed to answer the research questions pertinent to the CRHR and NRHP significance of the site.

When an archaeological property is eligible for listing in the CRHR or NRHP for its information content only (Criteria 4 and d, respectively), potential adverse effects to the property may be resolved through data recovery to recover important information that would have been otherwise lost as a result of an undertaking. A DRP shall, at a minimum, include the following: -Discussion of the CRHR and NRHP significance of a property. -Research questions that are directly pertinent to those data sets that qualify the property for inclusion in the CRHR and NRHP. -A discussion that explains why it is in the public interest to pursue answers to these research questions. The discussion should indicate whether, why, and how the public may benefit from the scope and nature of the information developed through data recovery, and demonstrate that the costs of proceeding with the data recovery are prudent and reasonable. -Results of previous research relevant to the property type. -Proposed investigations (data needed to address research questions and the proposed methods and techniques to acquire that data, including any special studies). -Field methods and techniques that will clearly and cost-effectively address the property's structure and content in terms of the defined research questions and the property's stratigraphic and geomorphic context. -Laboratory processing and analyses, with justification of their cost-effectiveness and of their relevance to the property and its research values. -Methods and techniques used in artifact, data, and other record management. -Provisions for ongoing Native American consultation and coordination, if Native American values or concerns are present or are likely to be present. -Qualifications of key personnel. -Disposition, including curation, of recovered materials and records resulting from implementation of the DRP. -Cost proposal. -Any required permits. -Report preparation schedule, including the names of parties and repositories to whom reports will be distributed upon completion. -Monitoring provisions and procedures for evaluating and treating discoveries of unexpected finds during the course of the project, which may include consultation with other parties. -Explicit provisions for disseminating research findings to professional peers in a timely manner. -Plan for public involvement and educational or interpretive programs, focusing particularly on the community or communities that may have interest in the

results.

This condition continues on condition 10.PLANNING.19

10.PLANNING 019 GENERAL CONDITIONS | **SP - ADDENDA TO CRMP 2 of 3** | **Status:** **INEFFECT** | **Conditions:** **Informational**

This condition is a continuation of condition 10 PLANNING.18

Discovery Plans

Each CRMP Addendum shall contain a Discovery Plan with detailed provisions for the treatment of unanticipated discoveries during project construction, including human remains. The provisions of the Discovery Plan should be consistent with state law as contained in Health and Safety Code Section 7050.5, and PRC Sections 5097.94 and 5097.98.

A discovery plan shall, at a minimum, include the following: -If buried materials of potential historical, cultural or archaeological significance are accidentally discovered during any earth-moving operations associated with the proposed project, all work in that area shall be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds. If the find is determined to be an historical or unique archaeological resource, as defined in the CEQA Guidelines (CCR Title 14, Section 5064.5), avoidance or other appropriate measures as discussed in the CRMP shall be implemented. -If evidence of potentially significant prehistoric or historic resources is uncovered during project-related grading, the extent of monitoring shall be amended and the presence of a Native American observer(s) shall be incorporated into the monitoring program. -If human remains are uncovered at any time, all activities in the immediate area of the find shall be halted by the developer or its contractor and the County Coroner shall be notified immediately pursuant to Health & Safety Code Section 7050.5 and PRC Section 5097.98. If the Coroner determines that the remains are of Native American origin, the Coroner shall proceed as directed in Section 15064.5(e) of the CEQA Guidelines.

Site-Specific Mitigation Measures

The Master CRMP contains the following mitigation measures for each prehistoric site, which shall be reviewed and updated in an Addendum for each tentative tract or other project that affects prehistoric sites.

Sites Located within Public Facilities Planning Area: RIV-394, RIV-8707

Neither of these two sites-RIV-394, a single boulder with four mortars, or RIV-8707, with a single slick-is subject to direct adverse impacts, and no mitigation measures for direct impacts are needed. Current plans for the Public Facilities planning area call for water tanks to be placed and a pipeline to be installed south and west of the sites. To mitigate potential indirect effects from possible vandalism, future development within the Public Facilities planning area, and activities within the nearby fuel modification zone, an SPP for each site shall be prepared by the developer prior to approval of any water tanks or other improvements within the Public Facilities planning area. The SPPs for these sites should include provisions for the sites to be flagged and avoided, and for archaeological and Native American monitors to be present during all activities that could cause ground disturbance.

Specific measures for these sites, to be funded by the developer, are: -Flagging of site boundary and 5-m (16-foot) buffer area prior to ground-disturbing activities within 30 m (100 feet) of site -Monitoring by Native Americans and archaeologists

during ground-disturbing activities.

Sites Located within Open Space Planning Areas: RIV-397, RIV-806, RIV-2585, RIV-4155, RIV-8698, RIV-8699, RIV-8700, RIV-8704, RIV-8705, and RIV-8711

These 10 sites, 8 of which are composed of milling features only, one of which is a small rockshelter, and one of which is a rockshelter with rock art and a midden deposit, all are located within Open Space planning areas that will be deeded to the RCA and managed by that agency. Thus, they are not subject to direct impacts from grading or other ground disturbance associated with development. However, due to their proximity to residential planning areas, and recreational trails and other uses, they are subject to potential indirect effects. Recommendations to avoid or minimize indirect impacts to these sites are discussed below.

RIV-397

To provide for long-term management and protection of site RIV-397, an SPP shall be prepared by the developer prior to approval of any tentative tract within 500 feet of the site. The SPP shall be based on consultation among the Tribes, TTRAC, RCA, and the County, and shall include provisions for removal of modern graffiti, detailed recording of rock art elements by a recognized rock art expert, capping of exposed cultural deposits with fill and restoration of native vegetation, and protection of the site area from vandalism through appropriate fencing, landscaping, and interpretation.

-Flagging of site boundary and 5-m (16-foot) buffer area prior to ground-disturbing activities within 30 m (100 feet) of site -Graffiti removal (if possible and culturally appropriate) -Detailed recording of rock art -Capping of exposed cultural deposits with fill and restoration of native vegetation -Fencing or other site protective measures developed in consultation with Tribes, land owner, and County -Provisions for ongoing maintenance and protection through a conservation easement or other deed restriction held by an HOA, Tribe, or other entity approved by the County shall be established prior to any land transfer to the RCA or other open-space land holder.

RIV-806

No direct impacts are anticipated to this site and therefore no mitigation measures are recommended. Although the site may be subject to potential indirect impacts from increased use of the project area, there are no mitigation measures recommended for indirect impacts.

RIV-2585, 4155, 8698, 8699, 8700, 8704, 8705, and 8711

These eight sites consist of varying numbers of milling features, including both slicks and mortars, some with associated cultural deposits. No direct impacts to these sites are anticipated; however, indirect impacts could occur as a result of recreational use of nearby trails, and activities within adjacent fuel modification zones. To mitigate potential indirect effects from possible vandalism, and activities within the fuel modification zone, an SPP for each site shall be prepared by the developer prior to approval of any tentative tract within 500 feet of the site. The SPPs for these sites should include provisions for the sites to be flagged and avoided, and for archaeological and Native American monitors to be present during all activities that could cause ground disturbance within 100 feet of the sites.

Specific measures for these sites, to be funded by the developer, are: -Flagging of

site boundary and 5-m (16-foot) buffer area prior to ground-disturbing activities. -Monitoring by Native Americans and archaeologists during ground-disturbing activities within 30 m (100 feet) of site -Provisions for ongoing maintenance and protection through a conservation easement or other deed restriction held by an HOA, Tribe, or other entity approved by the County shall be established prior to any land transfer to the RCA or other open-space land holder.

This condition continues on 10.PLANNING.20

10.PLANNING 020 GENERAL CONDITIONS | **SP - ADDENDA TO CRMP 3 of 3** | **Status:** **INEFFECT** | **Conditions:** **Informational**

This condition is a continuation of condition 10.PLANNING.19

Sites Located within Residential Planning Areas: RIV-1842, RIV-4156/H, RIV-4158, RIV-8702, RIV-8703, and RIV-8706

These six sites are all located within residential planning areas, and thus will be subject to direct adverse effects from grading and other activities associated with project development. Each will require preparation and implementation of a DRP to mitigate adverse impacts from site destruction. Should any site currently subject to direct impacts and in need of a DRP be avoided though future final design, an SPP shall be required for that site rather than a DRP. Details of the DRP specific to each site are discussed below.

RIV-1842

This small to moderate-sized milling complex site includes two milling features with milling slicks. Trenching investigations identified ground stone fragments, flaked stone artifacts, a faunal bone, and midden deposit approximately 40-80 m west of the milling-feature area. Midden deposit was encountered as deep as 120 cm below ground surface. The southern boundary of the site is defined by a negative trench. The northern boundary has not been so clearly determined; the northernmost trench contained several artifacts, but no midden deposit. An area immediately south of the milling features has been heavily disturbed and currently has a man-made berm and depression with some concrete debris. Overall, whereas the surface condition of the site is fair, the midden deposits suggest some subsurface integrity and the potential to hold additional cultural materials.

The DRP for RIV-1842 should include provisions for additional testing to determine firmly the northern boundary of the site and assess the composition and structure of the subsurface deposits. Based on the testing data, a representative sample of subsurface cultural deposits should be excavated, analyzed, and interpreted in a subsequent data recovery level of work. The results of the data recovery shall be documented in a professional report and public interpretive information. All collections resulting from data recovery excavations shall be curated in perpetuity in a facility within Riverside County that meets the standards of the State of California Guidelines for the Curation of Archaeological Collections (Office of Historic Preservation [OHP] 1993) and Title 36, Part 79 of the Code of Federal Regulations (36 CFR 79), unless repatriation has been determined by the County. Such standards include: climate control, security, adequate staffing, access by qualified researchers and descendant groups.

Specific measures for this site, to be funded by the developer, are: -Additional testing of at least 1 percent of the site area to confirm extent of cultural deposit -Excavation of representative sample based on the results of the testing -Preparation of professional report and public interpretive information -Appropriate disposition of all

cultural resource collections resulting from data recovery excavations to be determined in consultation with the applicant, the County, and consulted tribes

RIV-4156/H

This site contains four milling features with a total of six slicks and one mortar. Although three trenches were excavated in the vicinity of the site with negative results, the immediate site area was not tested and subsurface deposits cannot be ruled out.

The DRP for RIV-4156/H should include provisions for testing to confirm the presence or absence of subsurface deposits. If the testing indicates that a subsurface deposit is present, a representative sample of subsurface cultural deposits shall be excavated, analyzed, and interpreted in a subsequent data recovery level of work. The results of the data recovery shall be documented in a professional report and public interpretive information. All collections resulting from data recovery excavations shall be curated in perpetuity in a facility within Riverside County that meets the standards of the State of California Guidelines for the Curation of Archaeological Collections (OHP 1993) and 36 CFR 79, unless repatriation has been determined by the County.

Specific measures for this site, to be funded by the developer, are: -Additional testing of at least 1 percent of the portions of the site subject to direct impacts to confirm extent of cultural deposit -Excavation of representative sample of the portions of the site subject to direct impacts based on the results of the testing -Preparation of professional report and public interpretive information -Appropriate disposition of all cultural resource collections resulting from data recovery excavations to be determined in consultation with the applicant, the County, and consulted tribes.

RIV-4158

This site is believed to be a redeposited assortment of artifacts removed from other nearby sites. Trenching results indicate that, although RIV-4158 appears to contain sparse subsurface archaeological deposits, this site may retain relatively little subsurface integrity.

The DRP for RIV-4158 shall include provisions for additional testing to assess the composition and structure of the subsurface deposits. Based on the testing data, a representative sample of subsurface cultural deposits shall be excavated, analyzed, and interpreted. The results of the data recovery shall be documented in a professional report and public interpretive information. All collections resulting from data recovery excavations shall be curated in perpetuity in a facility within Riverside County that meets the standards of the State of California Guidelines for the Curation of Archaeological Collections (OHP 1993) and 36 CFR 79, unless repatriation has been determined by the County.

Specific measures for this site, to be funded by the developer, are: -Additional testing of at least 1 percent of the site area to confirm extent of cultural deposit -Excavation of representative sample based on the results of the testing -Preparation of professional report and public interpretive information -Appropriate disposition of all cultural resource collections resulting from data recovery excavations to be determined in consultation with the applicant, the County, and consulted tribes.

RIV-8702, RIV-8703, and 8706

Sites RIV-8702, with a single milling slick on one boulder, RIV-8703, with seven milling slicks on two different boulders, and RIV-8706, with three slicks, each on a separate boulder, will be subject to direct adverse effects from grading for residential

uses.

The DRPs for these sites should include provisions for testing to confirm the presence or absence of subsurface deposits. If the testing indicates that a subsurface deposit is present, a representative sample of subsurface cultural deposits should be excavated, analyzed, and interpreted in a subsequent data recovery level of work. The results of the data recovery shall be documented in a professional report and public interpretive information. All collections resulting from data recovery excavations should be curated in perpetuity in a facility that meets the standards of the State of California Guidelines for the Curation of Archaeological Collections (OHP 1993) and 36 CFR 79, unless repatriation has been determined by the County.

Specific measures for these sites, to be funded by the developer, are: -Additional testing of at least 1 percent of the site area to confirm extent of cultural deposit -Excavation of representative sample based on the results of the testing -Preparation of professional report and public interpretive information -Appropriate disposition of all cultural resource collections resulting from data recovery excavations to be determined in consultation with the applicant, the County, and consulted tribes.

Site Located Partially within Open Space Planning Areas and Partially within Residential Planning Areas: RIV-8712

Site RIV-8712 covers an area of 78.5 acres containing five previously recorded sites, now defined as loci within the larger site complex. Most of the site area is within an Open Space planning area that covers more than 47 acres (60 percent) of the site area. Approximately 12.5 acres (16 percent) of the site have already been disturbed by previous construction of the CRA and the Inland Feeder Pipeline. The remaining portions of the site, less than approximately 19 acres, or 24 percent of the site area, will be subject to direct adverse effects.

To provide for long-term management and protection of the portions of RIV-8712 to be preserved, an SPP shall be prepared prior to approval of any tentative tract within 500 feet of the site. The SPP shall be based on consultation among the Tribes, TTRAC, RCA, and the County, and shall include provisions for protection of the site area from vandalism through appropriate fencing, landscaping, and interpretation.

Specific measures for the SPP, to be funded by the developer, include: -Fencing or other site protective measures developed in consultation with Tribes, land owner, and County -Provisions for ongoing maintenance and protection through a conservation easement or other deed restriction held by an HOA, Tribe, or other entity approved by the County shall be established prior to any land transfer to the RCA or other open -space land holder. -Nomination of the site to the CRHR.

The DRP for the portion of RIV-8712 subject to direct impacts shall include provisions for additional testing to assess the composition and structure of the subsurface deposits. Based on the testing data, a representative sample of subsurface cultural deposits should be excavated, analyzed, and interpreted in a subsequent data recovery level of work. The results of the data recovery should be documented in a professional report and public interpretive information. All collections resulting from data recovery excavations should be curated in perpetuity in a facility that meets the standards of the State of California Guidelines for the Curation of Archaeological Collections (OHP 1993) and 36 CFR 79, unless repatriation has been determined by the County.

Specific measures for the DRP, to be funded by the developer, include: -Additional testing of at least 1 percent of the portions of the site subject to direct impacts to confirm extent of cultural deposit -Excavation of representative sample of the

portions of the site subject to direct impacts based on the results of the testing - Preparation of professional report and public interpretive information -Appropriate disposition of all cultural resource collections resulting from data recovery excavations to be determined in consultation with the applicant, the County, and consulted tribes.

Isolates 6 and 7

Isolates 6 and 7 are subsurface items identified during the excavation of Trenches 51 and 68. Located approximately 60 m apart, the materials do not meet the criteria for consideration as a site. However, one flaked stone artifact was identified on the surface between Trenches 51 and 68 and, as it is possible that additional materials are present below the surface between the trenches, this area is recommended for additional subsurface testing. We recommend excavation of four additional trenches around Trenches 51 and 68 and four more between Trenches 65 and 50 to the east. This work shall be conducted for and reported in the CRMP Addendum to be prepared for the tentative tract containing these resources. If the results of the testing indicate the presence of an intact subsurface cultural deposit which cannot be avoided through future final design, a DRP for the newly identified site shall be prepared according to the provisions of the CRMP. The DRP shall be reviewed and approved by the County archaeologist prior to approval of any tentative tract containing or within 500 feet of the site. All DRP measures for the site shall be implemented prior to issuance of a grading permit for the associated tentative tract. A technical report of findings, including disposition of the recovered archaeological collection, for the DRP shall be submitted and approved by the County archaeologist prior to issuance of occupancy permits for the associated tentative tract. Specific measures, to be funded by the developer, include: -Additional trenching; preparation and implementation of DRP if results are positive.

Curation

The County shall make every reasonable effort to ensure that cultural materials and records resulting from excavation or surface collections pursuant to this CRMP are curated in accordance with 36 CFR 79, Curation of Federally Owned and Administered Archaeological Collections, and California Guidelines for the Curation of Archeological Collections, or as may be stipulated in any agreement document pertaining to a project covered by this CRMP or its Addenda, unless repatriation to the Most Likely Descendant tribe(s) as designated by the Native American Heritage Commission has been determined by the County. If cultural materials are curated, the developer/permit holder is responsible for all costs associated with curation. Repatriation shall not occur until after the Phase IV Archaeological Monitoring report has been submitted and accepted by the Riverside County Planning Department for each phase of monitoring work.

10.PLANNING 021
GENERAL CONDITIONS

SP - SPECIAL INTEREST MONITOR

Status: **INEFFECT**

Conditions: **Informational**

As a result of both archaeological investigation PD-A-4426 and information submitted during consultations from several Native American tribes participating in this project review, tribal monitoring shall be required in all areas of the Specific Plan.

Prior to the issuance of any grading permits, the developer/permit holder shall enter into contract with the designated tribes and retain, under a single cooperative agreement between the tribes, monitor (s) designated by the Pechanga Band of Luiseno Indians, San Manuel Band of Mission Indians, the Ramona Band of Cahuilla Indians and the Soboba Band of Luiseno Indians. These tribal groups shall be known as the Special Interest Monitors (SI Monitors) for this Specific Plan, the approved Master Cultural Resources Mitigation Plan (CRMP) and any approved addenda to the

CRMP for future implementing projects. The contracts shall address the treatment and ultimate disposition and/or curation in a Riverside County approved curation facility.

The SI Monitors shall be on-site during all initial ground disturbing activities and excavation of each portion of the project designated for archaeological monitoring including clearing, grubbing, tree or tank removals, grading, trenching, stockpiling of materials, rock crushing, structure demolition, blasting, and any other approved earth -disturbing activity. The SI Monitors shall have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow identification, evaluation, and potential recovery or other appropriate mitigation of cultural resources in coordination with the Project Archaeologist under the approved Master CRMP or Addendum.

The developer/permit holder shall submit a fully executed copy of the contract/agreement to the Riverside County Planning Department (County Archaeologist) to ensure compliance with this condition of approval. The contract/agreement shall not in any way modify or negate any approved condition of approval or mitigation measure for the Specific Plan. Upon verification, the Planning Department shall clear this condition at the implementing project level.

NOTE: 1)The Cultural Resources Professional (Project Archaeologist) is responsible for implementing mitigation and standard professional practices for cultural resources in accordance with the approved Cultural Resources Mitigation Plan and related addenda for this Specific Plan. The Professional shall consult with the County developer/permit holder and special interest group monitors throughout the process.

2)Special interest monitoring does not replace any required cultural resources (archaeological) monitoring, but rather serves as a supplement for consultation and advisory purposes for the groups' interests only.

3)The agreement with the Tribes shall not modify any condition of approval or mitigation measure.

4)The developer/permit holder shall contact the Planning Director for consideration of this condition after forty-five (45) days, if an agreement with the designated Special Interest groups has not been established after a demonstrated good-faith effort.

5)Should repatriation be preferred, it shall not occur until after the Phase IV monitoring report has been submitted to the Riverside County Planning Department for review and acceptance after each phase of monitoring work. Should curation be determined, the developer/permit holder is responsible for all costs.

10.PLANNING 022
GENERAL CONDITIONS

SP - COMMUNITY REINVESTMENT

Status: **INEFFECT**

Conditions: **Informational**

The Master Developer has committed to establish a $1 million community reinvestment fund that will provide services to the greater Lakeview-Nuevo community. The Master Developer will contribute up to a maximum of $100,000 per year. The community reinvestment fund will be managed by the Lakeview Community Service Organization. To ensure the total $1 million community reinvestment fund is established and fully funded, the project shall provide an annual report to the Planning Director no later than March 31 of each year. The annual report sets forth the current balance of funding; the financial contribution made by the Master Developer in the prior year; and the community services provided in the prior year.

The first annual report shall be submitted within fifteen (15) months after the issuance of the 1st building permit.

10.PLANNING 023 **SP - AFFORDABLE FOR RENT UNITS** **Status:** **INEFFECT** **Conditions:** **Informational**

GENERAL CONDITIONS

The applicant shall complete a total of five hundred (500) affordable for-rent units. All five hundred (500) affordable for-rent units shall be built within the Specific Plan boundaries unless otherwise mutually agreed to by the applicant and the County of Riverside Board of Supervisors.

All affordable for- rent units shall be built to the same standards and appearance to other market rate for-rent units within the Specific Plan

All very low income and low income affordable for- rent units shall be mixed within the moderate affordable for- rent units in the Specific Plan.

-Age Restriction Two hundred fifty (250) of the affordable for- rent units shall be age restricted (55 years and older), (referred to as "Age Restricted Units").

Two hundred fifty (250) of the affordable for-rent units shall be non-age restricted, (referred to as "Non-Age Restricted Units").

-Income Mix The Age Restricted Units shall contain the following income mixes: 10% very low income (earning 50% or less of the County Median Income), 15% low income (earning 80% or less of the County Median Income), 75% moderate income (earning 120% or less of the County Median Income).

The Non-Age Restricted Units shall contain the following income mixes: 10% very low income (earning 50% or less of the County Median Income), 15% low income (earning 80% or less of the County Median Income), 75% moderate income (earning 120% or less of the County Median Income).

-Additional Affordable for- Rent Units Upon the request of the County, the applicant shall include additional very low income and low income affordable for-rent units in the Specific Plan. Any implementing multi-family for- rent project shall not exceed 30% very low income and 30% low income. In the event the County requests more than the required 500 affordable for-rent units in the Specific Plan, the County shall pay the difference between a moderate affordable for rent unit and the very low and/or low income unit.

10.PLANNING 024 **SP - FENCE/WALL DESIGN SJWA** **Status:** **INEFFECT** **Conditions:** **Informational**

GENERAL CONDITIONS

The final design of the barriers between the project and San Jacinto Wildlife Area (SJWA) in the Resort Village greenbelt, shall be completed based on consultation between the developer, County Planning Department, and as approved by the County Environmental Programs Department with the concurrence of California Department of Fish and Game. If the parties cannot agree, a mutually agreed upon third-party arbitrator shall be employed.

10.PLANNING 025 **SP -MULTIFAMILY ALT ENG GEN** **Status:** **INEFFECT** **Conditions:** **Informational**

GENERAL CONDITIONS

All multifamily attached residential implementing projects with sub-Homeowners Associations serving as professional management shall add renewable energy generating technology to the site to reduce non-renewable electricity.

10.PLANNING 026 GENERAL CONDITIONS | **SP - WATER TANK PROPERTY CONV** | **Status:** INEFFECT | **Conditions:** Informational

The applicants shall provide, without charge to Eastern Municipal Water District (EMWD), property for a reclaimed/recycled water tank in Planning Area 81. The timing for the land title transfer shall be at the reasonable discretion of EMWD.

*This condition was added by the Board of Supervisors on February 23 2010

10.PLANNING 027 GENERAL CONDITIONS | **SP - AFFORDABLE ORD FUNDS** | **Status:** INEFFECT | **Conditions:** Informational

The applicants shall provide funding, not to exceed one hundred thousand dollars ($100,000), for the creation of an affordability ordinance. The intent of the condition is to develop a countywide ordinance that will assist the county in meeting its Housing goals. The initial deposit shall be fifty thousand dollars ($50,000) no more than one (1) year from project approval, the second installment shall be no more than two (2) years from the project approval. In no case shall the total amount shall exceed one hundred thousand dollars ($100,000).

10.TRANS 001 GENERAL CONDITIONS | **SP - SP342/TS CONDITIONS** | **Status:** INEFFECT | **Conditions:** Informational

The Transportation Department has reviewed the Traffic Impact Study Report for SP 00342 (traffic study), including Addendum 1 and Addendum 2. The traffic study has been prepared in accordance with County-approved guidelines. We generally concur with the findings relative to traffic impacts.

The General Plan circulation policies require a minimum of Level of Service 'C', except that Level of Service 'D' may be allowed in community development areas at intersections of any combination of secondary highways, major highways, arterials, urban arterials, expressways or state highways and ramp intersections.

The traffic study evaluates the following intersections and indicates that it is possible to achieve adequate levels of service based on the various traffic study assumptions:

Note: Intersection numbering corresponds to the traffic study for The Villages of Lakeview Specific Plan (SP 342).

1. I-215 Southbound Ramps / Ramona Expressway 2. I-215 Northbound Ramps / Ramona Expressway 3. Perris Boulevard / Ramona Expressway 4. Evans Road / Ramona Expressway 5. Lake Perris Drive / Ramona Expressway 6. Rider Street / Ramona Expressway 7. Antelope Road / Ramona Expressway 8. Bernasconi Road / Ramona Expressway 9. Reservoir Avenue / Ramona Expressway 10. Lakeview Avenue / Ramona Expressway 11. Hansen Avenue / Ramona Expressway 12. Town Center Boulevard / Ramona Expressway 13. 5th Street / Ramona Expressway 14. 3rd Street / Ramona Expressway 15. Park Center Boulevard / Ramona Expressway 16. Bridge Street / Ramona Expressway 17. Warren Road / Ramona Expressway 18. Sanderson Avenue (SR-79)/ Ramona Expressway 19. Bridge Street / Gilman Springs Road 20. Warren Road / Gilman Springs Road 21. SR-79 Southbound Ramps / Gilman

Springs Road 22. SR-79 Northbound Ramps / Gilman Springs Road 23. Warren Road / Cottonwood Avenue 24. Hansen Avenue / Lakeview Avenue East 25. Reservoir Avenue / 9th Street 26. Lakeview Avenue / 9th Street 27. Hansen Avenue / Yucca Avenue 28. Evans Road / Rider Street 29. Redlands Avenue / Placentia Avenue 30. Redlands Avenue / Orange Avenue 31. Evans Road / Orange Avenue 32. Bradley Road / Orange Avenue 33. Foothill Avenue / Orange Avenue 34. Antelope Road West / Orange Avenue 35. Antelope Road East / Orange Avenue 36. Bernasconi Road / Orange Avenue 37. Reservoir Avenue / 10th Street 38. Lakeview Avenue/ 10th Street 39. Yucca Avenue / 10th Street 40. Hansen Avenue / 10th Street-Wolfskill Avenue 41. North Drive / Lakeview Avenue 42. Hansen Avenue / Contour Avenue 43. Murrieta Road / Nuevo Road 44. Evans Road / Nuevo Road 45. Dunlap Drive/Nuevo Road 46. Foothill Avenue / Nuevo Road 47. Antelope Road / Nuevo Road 48. Menifee Road / Nuevo Road 49. Menifee Road / Nuevo Road (Realigned) 50. Lakeview Avenue/ Nuevo Road 51. Menifee Road / San Jacinto Avenue 52.Menifee Road / Ellis Avenue 53.Menifee Road / Mapes Road 54.Reservoir Avenue / AA Street 55.AA Street / NN Street 56.CC Street / BB Street 57.School Access / PP Street 58.QQ Street / PP Street 59.Hansen Avenue / Project Access 60.WW Street / Wolfskill Avenue 61.WW Street / SS Boulevard 62.Project Access / SS Boulevard 63.SS Boulevard / MM Street 64.SS Boulevard / Lakeview Avenue 65.Town Center Boulevard / Retail Access 66.SS Blvd-RR Street / Town Center Blvd- Park Center Blvd 67.EE Street / Park Center Boulevard 68.MM Street / Park Center Boulevard 69.Park Center Boulevard / FF Street 70.Park Center Boulevard / VV Street 71.RR Street / DD Street 72.EE Street / DD Street 73.EE Street / FF Street 74.OO Street / MM Street 75.KK Street / MM Street 76.LL Street / MM Street 77.FF Street / GG Street 78.TT Street / GG Street 79.II Street / HH Street 80.HH Street / JJ Street 81.II Street / JJ Street 82.TT Street / JJ Street 83.TT Street / UU Street 1A. Perris Boulevard / Markham Street 2A. Perris Boulevard / Harley Knox Boulevard 3A. Gilman Springs Road / Alessandro Boulevard 4A. Lambs Canyon Road (SR-79) / California Avenue 5A. Beaumont Avenue (SR-79) / 1st Street 6A. State Street (SR-79) / Ramona Expressway (SR-79) 7A. Warren Road / Esplanade Avenue 8A. Winchester Road (SR-79) / SR-74 9A. California Avenue / Florida Avenue (SR-79) 10A. Warren Road / Florida Avenue (SR-79) 11A. Myers Street / Florida Avenue (SR-79) 12A. Palomar Road / Ethanac Road (SR-74) 13A. Menifee Road / Ethanac Road (SR-74) 14A. Briggs Road / Ethanac Road (SR-74) 15A. Menifee Road / McCall Boulevard 16A. Redlands Avenue / Nuevo Road 17A. Harvill Avenue / Cajalco Expressway

Various conditions exist, or will exist when the project is implemented, for the above intersections. At some intersections there are no significant impacts which result from the project therefore no improvements and/or funding are required. Other intersections are located outside of the County of Riverside's jurisdiction and therefore the funding and timing of improvements are beyond County control. Some fall outside of any existing or proposed funding sources, while others have known physical constraints that limit improvements/configurations that could result in adequate levels of service. Therefore, the following statements of overriding consideration are required, as described below.

10.TRANS 002
GENERAL CONDITIONS

SP - SP342/TS OVERRIDING CONS.

Status: **INEFFECT**

Conditions: **Informational**

At the following intersections, achievement of satisfactory levels of service would require improvements that would be the responsibility of others due to their location in jurisdictions other than unincorporated Riverside County, necessitating a finding of overriding considerations. The project will be required to pay TUMF fees. An "*" indicates intersections where TUMF fees can be used for intersection improvements. In addition the project will pay Lakeview Nuevo RBBD fees, a portion of which will help fund improvements at the I-215 ramps at Ramona Expressway.

2. I-215 Northbound Ramps (NS) at Ramona Expressway (EW) * 3. Perris Boulevard (NS) at Ramona Expressway (EW) 4. Evans Road (NS) at Ramona Expressway * 5. Lake Perris Drive (NS) at Ramona Expressway (EW) 6. Rider Street (NS) at Ramona Expressway (EW) 17. Warren Road (NS) at Ramona expressway (EW) 18. Sanderson Avenue (NS) at Ramona Expressway (EW) * 28. Evans Road (NS) at Rider Street (EW) 43. Murrieta Road (NS) at Nuevo Road (EW) 44. Evans Road (NS) at Nuevo Road (EW) * 45. Dunlap Drive (NS) at Nuevo Road (EW)

At the following intersection, adequate level of service is achieved when the project traffic is considered independently of cumulative projects. Achievement of a satisfactory level of service cannot be achieved in the cumulative condition for the last phase of project build-out due to physical constraints which include the location of the railroad tracks and the width of the bridge over the I-215. The following intersection would require improvements that would be the responsibility of others due to their location in jurisdictions other than unincorporated Riverside County, also necessitating a finding of overriding considerations. The project is required to pay TUMF and Lakeview Nuevo RBBD fees which are in part designated to the intersection identified.

I-215 Southbound Ramps (NS) at Ramona Expressway (EW)

At the following intersections, achievement of satisfactory level of service could be delayed because improvements would be implemented later than the time they would be needed based on the traffic study Addendum #2 dated September 19, 2008, or the applicant's fair share of the improvements could be satisfied through the payment of fees, thereby temporarily delaying the improvement and achievement of satisfactory level of service until later than the time they would be needed. Where either of these conditions exists, a temporary finding of overriding considerations will be necessary. For the following intersections, the project is required to pay TUMF and/or Signal Program fees which are in part designated to the intersections identified.

52. Menifee Road (NS) at Ellis Avenue (EW) (cumulative impact only) 3A. Gilman Springs Road (NS) at Alessandro Boulevard (EW) (project impact in Phase 3) 13A. Menifee Road (NS) at Ethanac Road (EW) (project impact in Phase 3)

An acceptable level of service can be achieved at the following intersections after the completion of improvements to Reservoir Avenue. However, achievement of satisfactory level of service through widening Lakeview to 4 lanes is not considered practical or compatible with the rural character of the area, necessitating a finding of overriding considerations:

26. Lakeview Avenue (NS) at 9th Street (EW) 38. Lakeview Avenue (NS) at 10th Street (EW) 41. Lakeview Avenue (NS) at North Drive (EW) 50. Lakeview Avenue (NS) at Nuevo Road (EW)

Findings of Overriding Considerations will be needed for the following roadway segments because improvements would be implemented later than the time they would be needed according to the traffic study Addendum #2 dated September 19, 2008:

Lakeview Avenue between Nuevo Road and 9th Street (temporary impact until Reservoir Avenue is constructed as a four lane facility between Nuevo Road and Ramona Expressway). Lakeview Avenue is retained as a two-lane facility to maintain the rural character of the community.

Nuevo Road between Menifee Road and Lakeview Avenue (cumulative impact only

and temporary impact until Reservoir Avenue is constructed as a four lane facility between Nuevo Road and Ramona Expressway). Lakeview Avenue is retained as a two-lane facility to maintain the rural character of the community.

Reservoir Avenue between Nuevo Road and 10th Street (temporary impact until Reservoir Avenue is constructed as a four lane facility between Nuevo Road and Ramona Expressway). Lakeview Avenue is retained as a two-lane facility to maintain the rural character of the community.

Hansen Avenue between Contour Avenue and 10th Street (cumulative impact only and temporary impact until Reservoir Avenue is constructed as a four lane facility between Nuevo Road and Ramona Expressway). Hansen Avenue is retained as a two-lane facility to maintain the rural character of the community.

Ramona Expressway between Hansen Avenue and 5th Street (temporary impact until improvements are made prior to the issuance of the occupancy permit for the 2,201st residential unit, or building permits for an equivalent amount of non-residential uses. Improvement to four lanes would be needed prior to issuance of 1,551st occupancy permit or equivalent.

Ramona Expressway between 5th Street and Warren Road (temporary impact until improvements are made prior to the issuance of the occupancy permit for the 4,001st residential unit, or building permits for an equivalent amount of non-residential uses). Improvement to four lanes needed prior to issuance of 2,091st occupancy permit or equivalent.

A general finding of overriding considerations will be needed for the following roadway segments to allow for temporary conditions where a construction contract has been awarded but the actual construction of the improvement is not completed until after the threshold that would trigger the need for the improvement.

Ramona Expressway between Rider Street and Hansen Avenue (project specific and cumulative) Nuevo Road between Dunlap Road and Menifee Road (project specific and cumulative) Reservoir Avenue between Nuevo Road and 10th Street (project specific and cumulative) Reservoir Avenue between 9th Street and Ramona Expressway (cumulative only)

A general finding of overriding considerations will be needed for the following roadway segments to allow for temporary conditions where fair share fees and/or funding has been provided by TVOL but no guarantee of timing for the construction may cause a temporary delay:

Gilman Springs Road between Bridge Street and Alessandro Boulevard (project specific) Menifee Road between Ellis Avenue and San Jacinto Avenue (cumulative only)

A general finding of overriding considerations will be needed for the following roadway segments because they will be the responsibility of other jurisdictions or agencies:

Warren Road between Esplanade Avenue and Florida Avenue, widening to four lanes. (Primarily in Hemet) Nuevo Road between Evans Road and Dunlap Road, widening to four lanes (project level impacts) and to six lanes (cumulative level impacts). (In

Perris) Ramona Expressway between I-215 and Evans Road, widening from four to six lanes (project level impacts) and to eight lanes (cumulative level impacts). (In Perris) Warren Road between Cottonwood Avenue and Esplanade Avenue, widening from two to four lanes (project level impacts). (San Jacinto) Sanderson Avenue (SR-79) between Gilman Springs Road and Ramona Expressway (San Jacinto) Warren Road between Ramona Expressway and Cottonwood Avenue, widening from two to four lanes (project level impacts) and to six lanes (cumulative level impacts). (San Jacinto)

10.TRANS 003 GENERAL CONDITIONS | **SP - SP342/TS DEF. OF PHASES** | **Status:** **INEFFECT** | **Conditions:** **Informational**

For purposes of defining phases of development within SP00342, the following planning areas are included in each phase identified:

Phase 1A - Planning Areas: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 15, 16, 17, 19, 20, 21, 22, 26, 27, and 81

Phase 1B - Planning Areas: 41, 53, 55, 56, 57, 58, 59, and 60

Phase 2 - Planning Areas: 30, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, and 52

Phase 3A - Planning Areas: 29, 31, 33, 34, 35, 36, 65, 73, 74, 75, 77, 78, 83, 84, 85, and 86 Phase 3B - Planning Areas: 28, 61, 62, 63, 64, 66, 67, 68, 69, 70, and 71

Planning area numbers missing from the sequence above are not used in the Specific Plan.

The intent of SP 342 is to phase development in the following order, with some tolerance for overlap:

1A 1B 2 3A 3B

If development occurs in a different order, or if there is substantial overlapping of phases, then a new traffic study shall be completed to determine if any improvements from the prior un-built phase need to be constructed to mitigate impacts caused by the phase being developed.

For purposes of cross-referencing phasing as described in SP342 to phasing described in the Traffic Impact Study Report, the following planning areas are identified by phase in the Traffic Impact Study Report:

Phase 1 - Planning Areas: 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 17, 19, 20, 21, 22, 26, 27, 41, 53, 55, 56, 57, 58, 59, 60, and 81

Phase 2 - Planning Areas: 9, 15, 16, 29, 30, 37, 39, 42, 43, 45, 46, 48, 49, 50, 51, 52, 76 (SP merged with 77), 77, 78, and 79 (SP merged with 73)

Phase 3 - Planning Areas: 28, 31, 33, 34, 35, 36, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 73, and 75

The Traffic Impact Study Report did not analyze the following planning areas as either (1) no development is proposed in these planning areas that would generate traffic; or (2) the planning area no longer exists due to renumbering: 38, 40, 44, 65, 72 (merged with 74), 74, 80 (merged with 83), 83, 84, 85, and 86.

All references to phasing below shall refer to Project phasing.

10.TRANS 004
GENERAL CONDITIONS

SP - SP342/TS INFRA. FUNDING

Status: INEFFECT **Conditions:** Informational

The County is in the process of establishing a Road and Bridge Benefit District (RBBD) for the Lakeview/Nuevo area, which includes this project site, in order to improve the existing transportation infrastructure to mitigate cumulative traffic impacts not mitigated by TUMF. A "Lakeview/Nuevo Nexus Study" is underway to determine the appropriate RBBD fee to fund the necessary transportation infrastructure improvements.

The first priority of the RBBD is to fully fund the engineering and environmental work for improvements along the Ramona Expressway corridor. The County is leading the effort to construct a 4-lane roadway improvement project between the end of the existing 4-lane roadway in Perris and the end of the existing 4-lane roadway at Warren Road in San Jacinto. This would be an 8-mile segment of four-lane roadway including, grade separations at Reservoir Avenue, Town Center Boulevard, and Park Center Boulevard. The County intends to use RBBD and TUMF fees as applicable and as needed for the preparation of planning, environmental and design documents for these improvements along the Ramona Parkway project.

20.PLANNING 001
PRIOR TO A CERTAIN DATE

SP - 90 DAYS TO PROTEST

Status: INEFFECT **Conditions:** Outstanding

The applicant has ninety (90) days from the date of the approval of these conditions to protest, in accordance with the procedures set forth in Government Code Section 66020, the imposition of any and all fees, dedications, reservations, and/or exactions imposed on this project as a result of the approval or conditional approval of this project.

30.EPD 001
PRIOR TO ANY PROJECT APPROVAL

SP - 30 DAY PRECONSTR SURVEYS

Status: INEFFECT **Conditions:** Outstanding

PRIOR TO ISSUANCE OF ANY GRADING PERMIT FOR ANY PROJECT OR APN ASSOCIATED WITH SP00342, A 30 DAY PRECONSTRUCTION SURVEY FOR BURROWING OWL MUST BE CONDUCTED BY A QUALIFIED BIOLOGIST HOLDING AN MOU WITH RIVERSIDE COUNTY AND THE FINDINGS SUBMITTED IN A LETTER REPORT TO EPD (ENVIRONMENTAL PROGRAMS DEPARTMENT) FOR REVIEW. IF ANY OWLS ARE FOUND ONSITE RELOCATION WILL BE REQUIRED IN ACCORDANCE WITH THE EIR.

30.EPD 002
PRIOR TO ANY PROJECT APPROVAL

SP-PA 81/TANKAREA CONSERVATION

Status: INEFFECT **Conditions:** Outstanding

Conservation acreage within PA 81 post water tank site as shown on the MSHCP Open Space Exhibit dated 05/11/09 (the star symbol indicating PA 81) shall be offered for dedication to the Western Riverside County Regional Conservation Authority (RCA) after tank site development contingencies have been resolved. The remainder of land within PA 81 shall be conveyed to the RCA within 90 days of completion of inspection & acceptance of the tanks by BY EMWD (EASTERN MUNICIPAL WATER DISTRICT). Evidence from the RCA indicating an assurance to keep this land undeveloped except

for the water tanks shall be provided to EPD prior to issuance of any grading permit. Prior to issuance of any grading permits for the water tanks to be built in PA 81, the site plan for the tanks must be reviewed by EPD to ensure proper UWIGs & BMPs are utilized to minimize impacts on adjacent conserved lands. Specifically the construction area should be fenced off and construction limited to daytime hours. EPD shall inspect the perimeter fence prior to issuance of grading permit to ensure a secure barrier has been established for wildlife within the adjacent areas.

30.EPD 003
PRIOR TO ANY PROJECT APPROVAL

SP -NO GRADING IN CONSERVATION

Status: INEFFECT **Conditions:** Outstanding

NO GRADING SHALL OCCUR WITHIN ANY AREAS TO BE DEICATED FOR CONSERVATION WITH AN EXCEPTION FOR CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF THE WILDLIFE UNDERCROSSING IN PA 78. IN ADDITION MANUFACTURED SLOPES SHALL NOT EXTEND WITHIN ANY AREAS DETERMINED FOR CONSERVATION. THE FINAL GRADING PLANS OF ALL MAPS UNDER SP00342 SHALL BE SUBMITTED TO EPD FOR REVIEW TO ENSURE NO GRADING SHALL OCCUR WITHIN THE CONSERVATION AREAS.

30.EPD 004
PRIOR TO ANY PROJECT APPROVAL

SP - FENCING/BARRIER PLAN

Status: INEFFECT **Conditions:** Outstanding

Prior to approval of any project under SP00342, the applicant shall consult with EPD regarding developing a fencing/barrier plan that will provide adequate separation between the project and adjacent conservation areas to minimize impact of domestic animals and illegal trespass as outlined in Section 6.1.4 of the WRMSHCP. This fencing plan shall be submitted to EPD for review prior to project approval and EPD shall visit the site to inspect the barriers prior to final building inspection. This fencing/barrier plan will only be required for projects adjacent to the conservation areas.

30.EPD 005
PRIOR TO ANY PROJECT APPROVAL

SP - FUEL MOD ZONES

Status: INEFFECT **Conditions:** Outstanding

No impacts from fuel mod zones for fire clearance shall occur within any conservation or other biologically constrained areas. All fuel mod zones and conservation or biologically constrained areas shall be clearly delineated on all exhibits for projects under SP00342 which occur adjacent to conservation areas.

30.EPD 006
PRIOR TO ANY PROJECT APPROVAL

SP - MSHCP DRAINAGE

Status: INEFFECT **Conditions:** Outstanding

Per Section 6.1.4 of the WRMSHCP no nuisance runoff shall be directed off site into adjacent conservation areas. The final project exhibit for approval must clearly show how the site is to be drained and confirm that adequate water quality treatment has been implemented for flows which do enter conservation areas.

30.EPD 007
PRIOR TO ANY PROJECT APPROVAL

SP - MSHCP BMPS

Status: INEFFECT **Conditions:** Outstanding

Prior to issuance of any grading permit under SP00342 Best Management Practices (BMP's) shall be installed to prevent impacts to anythe Riparian/Riverine Drainages present on the project site. BMP's shall include but are not limited to installation of silt fencing and erosion control measures along all sides of the drainages to insure that grading activities do not impact downstream functions and values. Silt fencing shall be installed around all proposed grading activities especially in any project adjacent to conservation areas in the NW area of SP00342. In addition construction hours shall be limited to daytime hours to limit nocturnal noise impacts and an exhibit prepared delineating disturbance versus conserved areas and all storage, fueling and access areas.

A qualified biologist currently holding a MOU with the County shall be consulted in developmet of BMPs and a summary of BMPs shall be provided to EPD. EPD shall be contacted directly once BMP's are installed and EPD shall confirm that all BMP's are secure and in place prior to issuance of any grading permit.

30.EPD 008
PRIOR TO ANY PROJECT APPROVAL

SP - MSHCP LANDSCAPING

Status: **INEFFECT** **Conditions:** **Outstanding**

A copy of the landscaping plan for this project shall be submitted to EPD for review to ensure no invasive species are proposed to be utilized with the exception of the 15 species referenced in Bio MM 11a of the EIR. No invasive species shall be allowed in landscaping within 150' of any conservation area and within 500' of the San Jacinto Wildlife Area. The list of species not to be included within conservation areas can be found on pages 6-44 through 6-46 of the WRMSHCP (Table 6.2).

30.EPD 009
PRIOR TO ANY PROJECT APPROVAL

SP - NOISE & LIGHTING UWIGS

Status: **INEFFECT** **Conditions:** **Outstanding**

For any project under SP00342 which is located adjacent to any conservation areas, EPD shall visit the site prior to final inspection to ensure proper shielding has been utilized or that lighting has been directed away from adjacent conservation areas and to ensure proper noise mitigation measures have been implemented per the MSHCP consistency review.

30.EPD 010
PRIOR TO ANY PROJECT APPROVAL

SP - MSHCP CONVEYANCE

Status: **INEFFECT** **Conditions:** **Outstanding**

As determined through the Habitat Evaluation and Acquisition Negotiation Strategy (HANS file # 313), established by the Western Riverside County Multiple Species Habitat Conservation Plan, a total of 967.5 acres as shown on the MSHCP Open Space Exhibit dated 05/11/09 shall be offered for dedication to the Western Riverside County Regional Conservation Authority (RCA), as County directs or authorizes, and accepted by the RCA. This dedication shall occur without any fee credits or other compensation. This dedication must be completed prior to issuance of any grading permit within the boundary of SP00342.

Prior to the acceptance of this dedication the applicant shall provide a preliminary title report & Phase 1 Environmental Site Assessment for the area to be dedicated to the RCA for review. The RCA shall have sole and absolute discretion with respect to the information contained in the preliminary title report & Phase 1 Environmental Site Assessment. Title to this dedication shall be clear of all liens, encumberances,

easements, leases (recorded & unrecorded) and taxes except those which the RCA may deem are acceptable (easements allowing for the maintenance of fuel modification or detention basins shall not be accepted).

30.EPD 011
PRIOR TO ANY PROJECT APPROVAL

SP - PA 78 GRADING/CONVEYANCE

Status: INEFFECT **Conditions:** Outstanding

Prior to issuance of any grading permits within PA 78 (south of Ramona Expressway at western end of SP) for construction of the wildlife undercrossing, the site plan for this area must be reviewed by EPD to ensure proper UWIGs & BMPs are utilized to minimize impacts on adjacent conserved lands. Specifically the construction area should be fenced off and construction limited to daytime hours. EPD shall inspect the perimeter fence prior to issuance of grading permit to ensure a secure barrier has been established for wildlife within the adjacent areas. Prior to final inspection of the grading for PA 78 this area shall be dedicated to the RCA for conservation.

30.FLOOD RI 001
PRIOR TO ANY PROJECT APPROVAL

SP SUBMIT WQMP

Status: INEFFECT **Conditions:** Outstanding

A preliminary project specific Water Quality Management Plan (WQMP) shall be submitted to the District for review and approval prior to issuance of recommended conditions of approval.The WQMP shall be prepared consistent with the County's MS4 permit requirement in effect at the time the project is submitted.

30.PLANNING 001
PRIOR TO ANY PROJECT APPROVAL

SP - M/M PROGRAM (GENERAL)

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"The EIR prepared for the SPECIFIC PLAN imposes specific mitigation measures and monitoring requirements on the project. Certain conditions of the SPECIFIC PLAN and this implementing project constitute reporting/monitoring requirements for certain mitigation measures."

30.PLANNING 002
PRIOR TO ANY PROJECT APPROVAL

SP - NON-IMPLEMENTING MAPS

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"A land division filed for the purposes of phasing or financing shall not be considered an implementing development application for the purposes of the Planning Department's conditions of approval.

Should this project be an application for phasing or financing, all of the other conditions in this implementing project with a prefix of "SP" will be considered as NOT APPLICABLE, and this condition shall be considered as MET. Should this project not be an application for phasing or financing, this condition shall be considered as NOT

APPLICABLE.

A non-implimenting map will not require a VILLAGE REFINMENT PLAN be approved prior to the approval of the non-implementing map."

30.PLANNING 003
PRIOR TO ANY PROJECT APPROVAL

SP - DURATION OF SP VALIDITY

Status: **INEFFECT** **Conditions:** **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"The SPECIFIC PLAN that this project is a part of has a life span of thirty (30) years from the date of the adoption of the resolution adopting the SPECIFIC PLAN. Should the SPECIFIC PLAN not be substantially built out in that period of time, the project proponent shall file a specific plan amendment to be processed concurrently with this implementing proposal. (For the purposes of this condition, substantial buildout shall be defined as eighty five percent (85%) of the maximum amount of dwelling units allowed and fifty (50%) of the minimum required commercial square foot requirements allowed by the SPECIFIC PLAN as most recently amended.) The specific plan amendment will update the entire specific plan document to reflect current development requirements.

This condition shall be considered as NOT APPLICALBE if the implementing project has been filed within the above listed parameters, and shall be considered as MET if the specific plan amendment has been filed."

30.PLANNING 004
PRIOR TO ANY PROJECT APPROVAL

SP - SUBMIT FINAL DOCUMENTS

Status: **INEFFECT** **Conditions:** **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: ract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"Fifteen (15) copies of the final SPECIFIC PLAN and EIR documents (SP/EIR) documents shall be submitted to the Planning Department for distribution. The documents shall include all the items listed in the condition titled "SP - Documents". The final SP/EIR documents shall be distributed in the following fashion:

Building and Safety Department 1 copy Department of Environmental Health 1 copy Fire Department 1 copy Flood Control and Water Conservation District 1 copy Transportation Department 1 copy County Planning Department in Riverside 3 copies City of Perris 1 copy City of San Jacinto 1 copy City of Moreno Valley 1 copy Executive Office - CSA Administrator 1 copy Clerk of the Board of Supervisors 1 copy Any park provider if not the CSA 1 copy

Any and all remaining documents shall be kept with the Planning Department in Riverside, or as otherwise determined by the Planning Director.

This condition cannot be DEFERRED or considered as NOT APPLICABLE."

30.PLANNING 005
PRIOR TO ANY PROJECT APPROVAL

SP - PROJECT LOCATION EXHIBIT

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"The applicant shall provide to the Planning Department an 8 1/2" x 11" exhibit showing where in the SPECIFIC PLAN this project is located and a separate exhibit showing where in the respective VILLAGE it is located. The exhibit shall also show all prior implementing projects within the SPECIFIC PLAN that have already been approved.

This condition shall be considered MET once the applicant provides the Planning Department with the required information. This condition may not be DEFERRED."

30.PLANNING 006
PRIOR TO ANY PROJECT APPROVAL

SP - ACOUSTICAL STUDY REQD

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO PROJECT APPROVAL, an acoustical study shall be submitted to the Planning Department and the Department of Environmental Health - Industrial Hygene Division for review and approval.

This condition shall be considered MET if the relevant study has been approved by the Planning Department and the Department of Environmental Health-Industrial Hygene Division. This condition may be considered as NOT APPLICABLE if the Planning Department determines that the required study is not necessary.

The submittal of this study mandates that a CEQA determination of an Addendum to a previously adopted EIR be made, at a minimum."

30.PLANNING 010
PRIOR TO ANY PROJECT APPROVAL

SP - GEO STUDY REQUIRED

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO PROJECT APPROVAL, a geological/geotechnical study shall be submitted to the Planning Department Engineering Geologist for review and approval.

This condition shall be considered MET if the relevant study has been approved by the Planning Department. This condition may be considered as NOT APPLICABLE if the Planning Department determines that the required study is not necessary.

The submittal of this study mandates that a CEQA determination of an Addendum to a previously adopted EIR be made, at a minimum."

30.PLANNING 012
PRIOR TO ANY PROJECT APPROVAL

SP - EA REQUIRED

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementation project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"If this implementing project is subject to the California Environmental Quality Act (CEQA), an environmental assessment shall be filed and processed concurrently with this implementing project. At a minimum, the environmental assessment shall utilize the evaluation of impacts addressed in the EIR prepared for the SPECIFIC PLAN.

This condition shall be considered as MET if an environmental assessment was conducted for this implementing project. This condition may be considered as NOT APPLICABLE if this implementing project is not subject to CEQA. This condition may not be DEFERRED."

30.PLANNING 013
PRIOR TO ANY PROJECT APPROVAL

SP - ADDENDUM EIR

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"This implementing project has been reviewed in the context the EIR, which is associated with this SPECIFIC PLAN. The Planning Department has reviewed this project and its relationship to the EIR, and has found that no new environmental impacts have arisen since the certification of the EIR. Although the EIR adequately addressed the environmental impacts of the SPECIFIC PLAN as a whole, more detailed technical informaiton (i.e. traffic studies, updated biological studies, etc.) have been required by the Planning Department and/or other COUNTY land development review departments in order to complete its environmental review. Therefore, an ADDENDUM to the previously certified EIR has been prepared in conjunction with this implementing application.

This condition shall be considered MET if an ADDENDUM to the EIR has been prepared. Alternatively, this condition shall be considered as NOT APPLICABLE if an ADDENDUM to the EIR is not required."

30.PLANNING 014
PRIOR TO ANY PROJECT APPROVAL

SP - SUPPLEMENT TO EIR

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"This implementing project has been reviewed in the context the EIR, which is associated with this SPECIFIC PLAN. The Planning Department has reviewed this project and its relationship to the EIR, and has found that although the EIR adequately addressed the environmental impacts of the SPECIFIC PLAN at the time, new environmental impacts have arisen since the certification of the original EIR. The Planning Department has determined that the new environmental impacts can be

mitigated to below a level of significance. Therefore, a SUPPLEMENT to the previously certified EIR has been prepared in conjunction with this implementing application.

This condition shall be considered MET if a SUPPLEMENT to the EIR has been prepared. Alternatively, this condition shall be considered as NOT APPLICABLE if a SUPPLEMENT to the EIR is not required."

30.PLANNING 015
PRIOR TO ANY PROJECT APPROVAL

SP - SUBSEQUENT EIR

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"This implementing project has been reviewed in the context the EIR, which is associated with this SPECIFIC PLAN. The Planning Department has reviewed this project and its relationship to the EIR, and has found that although the EIR adequately addressed the environmental impacts of the SPECIFIC PLAN at the time, new environmental impacts have arisen since the certification of the original EIR. The Planning Department has determined that this implementing project may have a signficant impact to the new environmental impacts that have arisen. Therefore, a SUBSEQUENT EIR has been prepared in conjunction with this implementing application.

This condition shall be considered MET if a SUBSEQUENT EIR has been prepared. Alternatively, this condition shall be considered as NOT APPLICABLE if a SUBSEQUENT to the EIR is not required."

30.PLANNING 016
PRIOR TO ANY PROJECT APPROVAL

SP - COMPLETE CASE APPROVALS

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"Prior to the approval of any implementing project (tract map, parcel map, use permit, plot plan, etc.) the SPECIFIC PLAN, the GPAs, the CHANGE OF ZONE, and the EIR must have been approved, adopted, and certified by the Board of Supervisors, respectively.

This condition shall be considered as MET once the SPECIFIC PLAN, the GPAs, the CHANGE OF ZONE, and the EIR have been approved, adopted, and certified by the Board of Supervisors, repectively. This condition may not be DEFERRED."

30.PLANNING 017
PRIOR TO ANY PROJECT APPROVAL

SP - AMENDMENT REQUIRED

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"If this implementing project meets any of the following criteria, an amendment to the SPECIFIC PLAN shall be required and processed concurrently with this

implementing project:

1. The implementing project adds any area to, or deletes area from, the SPECIFIC PLAN;

2. The implementing project proposes a substantially different use than currently allowed in the SPECIFIC PLAN (i.e. proposing a residential use within a commercially designated area); 3. If a VILLAGE REFINMENT PLAN requires any CEQA analysys beyond an addendum to the EIR;

4. Dwelling unit counts with a Planning Area are proposed that are outside the Flexibility Range as illistrated in Table B.11.5 of the SPECIFIC PLAN; or,

5. As determined by the Planning Director.

Any amendment to the SPECIFIC PLAN, even though it may affect only one portion of the SPECIFIC PLAN, shall be accompanied by a complete specific plan document which includes the entire specific plan, including both changed and unchanged parts.

This condition shall be considered MET if the specific plan amendment has been filed, and NOT APPLICABLE if a specific plan amendment is determined to be unnecessary."

30.PLANNING 019
PRIOR TO ANY PROJECT APPROVAL

SP - AG/DAIRY NOTIFICATION

Status: **INEFFECT** **Conditions:** **Outstanding**

Prior to the approval of any implementing residential land division within the SPECIFIC PLAN, the following condition of approval shall be applied to the implementing project stating that:

"PRIOR TO MAP RECORDATION, the applicant shall submit a detailed proposal for the notification of all initial and future purchasers of dwelling units within the subject project of neighboring agricultural uses. Said notification shall be in addition to any notice required by Ordinance No. 625 (Riverside County Right-to-Farm Ordinance). Said approved notification shall be provided to all initial and all future purchasers of dwelling units within the subject project."

30.PLANNING 020
PRIOR TO ANY PROJECT APPROVAL

SP - PA PROCEDURES

Status: **INEFFECT** **Conditions:** **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map or parcel map), the following condition shall be placed on the implementing project PRIOR TO MAP RECORDATION in the case of land division applications (tentative parcel maps or tentative tract maps) or PRIOR TO BUILDING PERMITS in the case of use permit applications (plot plans, conditional use permits, or public use permits):

"The planning areas for which this land division application is located must be legally defined. Any of the following procedures may be used in order to legally define these planning areas:

1. The project proponent has processed a FINAL CHANGE OF ZONE MAP concurrent with the SPECIFIC PLAN which legally defined these planning areas. 2. The project proponent shall file a change of zone application along with a legal description defining the boundaries of the planning area affected by this land division application.

The applicant will not be changing the allowed uses or standards within the existing zone but will merely be providing an accurate legal description of the affected planning area. The change of zone shall be approved and adopted by the Board of Supervisors."

30.PLANNING 021
PRIOR TO ANY PROJECT APPROVAL

SP - CC&R RES PUB COMMON AREA

Status: **INEFFECT**

Conditions: **Outstanding**

Prior to the approval of any implementing land division project (i.e. tract map or parcel map), the following condition shall be applied to the land division PRIOR TO MAP RECORDATION if the permanent master maintenance organization referenced in the condition entitled "SP - Common Area Maintenance" is a public organization:

"The applicant shall convey to the County fee simple title, to all common open space areas, free and clear of all liens, taxes, assessments, leases (recorded or unrecorded) and easement, except those easements which in the sole discretion of the County are acceptable. As a condition precedent to the County accepting title to such areas, the applicant shall notify the Planning Department that the following documents shall be submitted to the Office of the County Counsel and submit said documents for review along with the current fee, which shall be subject to County Counsel approval:

1. A cover letter identifying the project for which approval is sought; 2. A signed and notarized declaration of covenants, conditions and restrictions; 3. A sample document, conveying title to the purchaser, of an individual lot or unit which provides that the declaration of covenants, conditions and restrictions is incorporated therein by reference; and,

4. A deposit equaling three (3) hours of the current hourly fee for Review of Covenants, Conditions and Restrictions established pursuant to County Ordinance No. 671 at the time the above referenced documents are submitted for County Counsel review.

The declaration of covenants, conditions and restrictions submitted for review shall a) provide for a minimum term of 60 years, b) provide for the establishment of a property owners' association comprised of the owners of each individual lot or unit as tenants in common, and c) restrict the number of domestic animals (e.g. dogs, cats, and other predatory animals) allowed per residence to two; additionally the property owners association shall enforce this restriction and d) contain the following provisions verbatim:

"Notwithstanding any provision in this Declaration to the contrary, the following provisions shall apply:

The property owners' association established herein shall, if dormant, be activated, by incorporation or otherwise, at the request of the County of Riverside, and the property owners' association shall unconditionally accept from the County of Riverside, upon the County's demand, title to all or any part of the 'common area', more particularly described on Exhibit '___' attached hereto. Such acceptance shall be through the president of the property owner's association, who shall be authorized to execute any documents required to facilitate transfer of the 'common area'. The decision to require activation of the property owners' association and the decision to require that the association unconditionally accept title to the 'common area' shall be at the sole discretion of the County of Riverside.

In the event that the 'common area', or any part thereof, is conveyed to the property owners' association, the association, thereafter, shall own such 'common area', shall

manage and continuously maintain such 'common area', and shall not sell or transfer such 'common area' or any part thereof, absent the prior written consent of the Planning Director of the County of Riverside or the County's successor-in-interest. The property owners' association shall have the right to assess the owner of each individual lot or unit for the reasonable cost of maintaining such 'common area', and shall have the right to lien the property of any such owner who defaults in the payment of a maintenance assessment. An assessment lien, once created, shall be prior to all other liens recorded subsequent to the notice of assessment or other document creating the assessment lien.

This declaration shall not be terminated, 'substantially' amended, or property deannexed therefrom absent the prior written consent of the Planning Director of the County of Riverside or the County's successor-in-interest. A proposed amendment shall be considered 'substantial' if it affects the extent, usage or maintenance of the 'common area' established pursuant to this Declaration.

In the event of any conflict between this Declaration and the Articles of Incorporation, the Bylaws, or the property owners' association Rules and Regulations, if any, this Declaration shall control."

Once approved by the Office of County Counsel, the declaration of covenants, conditions and restrictions shall be recorded by the Planning Department with one copy retained for the case file, and one copy provided to the County Transportation Department - Survey Division."

30.PLANNING 022
PRIOR TO ANY PROJECT APPROVAL

SP - CC&R RES PRI COMMON AREA

Status: **INEFFECT**

Conditions: **Outstanding**

Prior to the approval of any implementing land division project within the SPECIFIC PLAN (tract map or parcel map), the following condition shall be placed on the implementing project PRIOR TO MAP RECORDATION if the permanent master maintenance organization referenced in the condition entitled "SP - Common Area Maintenance" is a private organization:

"The applicant shall notify the Planning Department that the following documents shall be submitted to the Office of County Counsel and submit said documents for review along with the current fee, which shall be subject to County Counsel approval:

1. A cover letter identifying the project for which approval is sought;

2. A signed and notarized declaration of covenants, conditions and restrictions;

3. A sample document, conveying title to the purchaser of an individual lot or unit, which provides that the declaration of covenants, conditions and restrictions incorporated therein by reference; and,

4. A deposit equaling three (3) hours of the current hourly fee for Review if Covenants, Conditions and Restrictions established pursuant to County Ordinance No. 671 at the time the above referenced documents are submitted for County Counsel review.

The declaration of covenants, conditions and restrictions submitted for review shall a) provide for a minimum term of 60 years, b) provide for the establishment of a property owners' association comprised of the owners of each individual lot or unit as tenants in common, c) provide for ownership of the common area by either the property owners' association or the owners of each individual lot or unit as tenants in

common, d) contain a restriction which limits the number of domestic animals (e.g. dogs, cats, and other predatory animals) alloewed per residence to two and requires the property owner's association to enforce this restriction, and e) contain the following provisions verbatim:

"Notwithstanding, any provision in this Declaration to the contrary, the following provisions shall apply:

The property owners' association established herein shall manage and continuously maintain the 'common area', more particularly described on Exhibit '___', attached hereto, and shall not sell or transfer the 'common area' or any part thereof, absent the prior written consent of the Planning Director of the County of Riverside or the County's successor-in-interest.

The property owners' association shall have the right to assess the owners of each individual lot or unit for the reasonable cost of maintaining such 'common area' and shall have the right to lien the property of any such owner who defaults in the payment of a maintenance assessment. An assessment lien, once created, shall be prior to all other liens recorded subsequent to the notice of assessment or other document creating the assessment lien.

This Declaration shall not be terminated, 'substantially' amended, or property deannexed therefrom absent the prior written consent of the Planning Director of the County of Riverside or the County's successor-in-interest. A proposed amendment shall be considered 'substantial' if it affects the extent, usage or maintenance of the 'common area' established pursuant to this Declaration.

In the event of any conflict between this Declaration and the Articles of Incorporation, the Bylaws, or the property owners' association Rules and Regulations, if any, this Declaration shall control.

To implement the mitigation measures of the Environmental Impact Report created for the project (EIR471) the Conditions, Covenants, and Restrictions shall also include and enforce the following provisions-

- The association(s) shall ensure that lighting is not projected into the Conservation Area at either the interface between the development and the MSCHP dedication to the south of the project along the Lakeview Mountains, or between the development and the the existing San Jacinto Wildlife Area (SJWA). Street lighting shall be designed with internal baffles to direct the lighting towards the ground and have a zero side angle cut off to the horizon. At the interface with the Lakeview Mountains, street lighting shall be at least 50 feet away from the Conservation Area. North of Ramona Expressway, street lighting shall be at least 400 feet from the project's proposed conservation areas and at least 500 feet away from the existing SJWA. The shielded lighting and adequate setback shall ensure that there shall be no spillage of lighting into the Conservation Area. The CC&Rs shall restrict the placement and use of lighting on private residential properties, such that individual residences will not direct lighting into the Conservation Area. (MM Bio 1)

- The association(s) shall restrict the number of domestic animals (e.g., dogs, cats, and other predatory animals) allowed per residence to two and require that cats must be kept indoors, and identify that this restriction applies to the areas north of Ramona Expressway adjacent to the SJWA. Additionally the association(s) shall require that dogs must be kept on a leash at all times when walked within the Greenbelt pursuant to Development Standard B.8.e.33, in the February 2009 Specific Plan shall be modified to include language that restricts dogs to trails and a new Development Standard shall be added to require that no trails be located closer than

50 feet from the SJWA as shown below:

33. Signs requiring dogs to be leashed and to be kept on the trails except within the dog park shall be posted along the trails within the Greenbelt. 34. Trails shall be located no less than 50 feet from the wildlife area.

- In order to reduce the potential significant indirect effects of invasive species to Conservation Areas, the Specific Plan will design landscaped areas adjacent to the SJWA and Lakeview Mountains to avoid the use of invasive plant species identified in Table 6-2 of the MSHCP document. Of the 86 species identified in the MSHCP table (see also Appendix D (CD #3) and Appendix C (CD #3) of the Specific Plan), 71 of them will be outright prohibited within the Specific Plan. Of the remaining 15 plants, if used, they shall be placed at least 150 feet from the existing and proposed conservation areas in the Lakeview Mountains and shall not be used within 500 feet of the San Jacinto Wildlife Area and the downstream conservation areas along the San Jacinto River. CC&Rs will be enforced through the Home Owners' Association to exclude 71 invasive species from properties throughout the project and 86 invasive species from properties within the above-prescribed distances from the urban/wildland interfaces. Maintenance of landscaping in these areas will include the removal of invasives that may establish through natural dispersal mechanisms. Such maintenance shall be funded through the Environmental Stewardship Program. (MM Bio 11a)

- In order to reduce the potential significant indirect effects of pesticides and rodenticides to conservation areas, the Environmental Stewardship Program established under MM Bio 11, shall include an Integrated Pest Management (IPM) program. The IPM program will 1) Establish minimum action thresholds for the application of pesticides; 2) Provide educational materials to promote accurate identification of pests by homeowners, so appropriate control decisions can be made in conjunction with action thresholds; 3) Educate homeowners to promote the prevention of pests before infestation occurs; and 4) Recommend thresholds for utilization of control methods. Compliance with the IPM program will be made a requirement of the project Conditions, Covenants and Restrictions, and enforced through the homeowners association. (MM Bio 11b)

- The association(s) shall establish green waste recycling through its yard maintenance or waste hauling contracts. Green waste recycling includes such things as grass recycling (where lawn clippings from a mulching-type mower are left on the lawn) and on- or off-site composting. This measure shall be implemented to reduce green waste going to landfills. If such services are not available through the yard maintenance or waste haulers in the area, the association(s) shall provide individual homeowners with information about ways to recycle green waste individually and collectively. Homeowners shall be notified of such in the CC & Rs.

-A community vehicle shall be run by, the association(s) (or like entity) for resident transport. It shall be an electric or alternative fuel vehicle. This helps implement EIR Mitigation Measure Air 11.

-The association(s) or appropriate management entity shall be responsible for maintaining an approved fire protection/vegetation management (fuel modification) plan for lands adjacent to open space areas (Planning Areas 58, 66, 68, 69, 73, and 81). This helps implement EIR Mitigation Measure Hazards-Fire 6.

-The association shall require through, landscape review, and enforce that Turf be limited to 33% of the landscaped area of a conventional singlefamily detached lot.

- The association(s) is(are) responsible for ensuring that all association maintained

landscaping, more specifically association(s) maintained residential front yards and back yards, i.e., private common areas, and in the adjacent public street parkway use recycled water for irrigation and watering.

Once approved by the Office of County Counsel, the declaration of covenants, conditions and restrictions shall be recorded the Planning Department with one copy retained for the case file, and one copy provided to the County Transportation Department - Survey Division."

30.PLANNING 023
PRIOR TO ANY PROJECT APPROVAL

SP - ARCHAEO M/M PROGRAM

Status: **INEFFECT** **Conditions:** **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing projects:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the project applicant shall enter into an agreement with a qualified archaeologist in accordance with the Master Cultural Resources Mitigation Plan approved for this Specific Plan. This agreement shall include, but not be limited to, the preliminary mitigation and monitoring procedures to be implemented during the process of grading, as found in the EIR. A copy of said implementing agreement shall be submitted to the Planning Department. No grading permits will be issued unless the preliminary mitigation and monitoring procedures required prior to grading permits as described in the EIR are substantially complied with. On-going tribal consultation is required for all implementing mitigation or preservation plans."

30.PLANNING 024
PRIOR TO ANY PROJECT APPROVAL

SP - PALEO M/M PROGRAM

Status: **INEFFECT** **Conditions:** **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the project applicant shall enter into an agreement with a qualified paleontologist. This agreement shall include, but not be limited to, the preliminary mitigation and monitoring procedures to be implemented during the process of grading. A copy of said agreement shall be submitted to the Planning Department. No grading permits will be issued unless the preliminary mitigation and monitoring procedures as described in the EIR are substantially complied with."

30.PLANNING 025
PRIOR TO ANY PROJECT APPROVAL

SP - GENERIC M/M PROGRAM

Status: **INEFFECT** **Conditions:** **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the project applicant shall provide to the Planning Department a detailed proposal for complying with the preliminary mitigation and monitoring procedures described in the EIR for the SPECIFIC PLAN during the process of grading. Grading permits will not be issued unless the

preliminary mitigation and monitoring procedures as described in the EIR are substantially complied with."

30.PLANNING 026
PRIOR TO ANY PROJECT APPROVAL

SP - F&G CLEARANCE

Status: **INEFFECT** **Conditions:** **Outstanding**

Prior to the approval of any implementing project within planning areas 14, 8, 1, 5, 68, 69, 67, 62, 63, 81, 84 and 77 of the SPECIFIC PLAN (i.e. tract map, parcel map, use permit, plot plan, etc.) which may propose grading or construciton within or along the banks of any blue-lined stream, the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the applicant shall obtain written notification to the County Planning Department that the appropriate California Department of Fish and Game notification pursuant to Sections 1601/1603 of the California Fish and Game Code has taken place, or obtain an "Agreement Regarding Proposed Stream or Lake Alteration" (Sections 1601/1603 Permit) should any grading or construction be proposed within or along the banks of any natural watercourse or wetland, located either on-site or any required off-site improvement areas. Copies of any agreement shall be submitted with the notification."

30.PLANNING 027
PRIOR TO ANY PROJECT APPROVAL

SP - ACOE CLEARANCE

Status: **INEFFECT** **Conditions:** **Outstanding**

Prior to the approval of any implementing project within planning areas 14, 8, 1, 5, 68, 69, 67, 62, 63, 81, 84, and 77 of the SPECIFIC PLAN (i.e. tract map, parcel map, use permit, plot plan, etc.) which may propose grading or construciton within or along the banks of any blue-lined stream which is determined to be within the jurisdiction of the United States Army Corps of Engineers, the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the applicant shall obtain written notification to the County Planning Department that the alteration of any watercourse or wetland, located either on-site or on any required off-site improvement areas, complies with the U.S. Army Corps of Engineers Nationwide Permit Conditions, or obtain a permit under Section 404 of the Clean Water Act should any grading or construction be proposed within or along the banks of any natural watercourse or wetland. Copies of any agreement shall be submitted with the notification."

30.PLANNING 028
PRIOR TO ANY PROJECT APPROVAL

SP - SKR FEE CONDITION

Status: **INEFFECT** **Conditions:** **Outstanding**

Prior to the approval of any implementing project within the SPECIFIC PLAN (tract map, parcel map, use permit, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF GRADING PERMITS, the applicant shall comply with the provisions of Riverside County Ordinance No. 663, which generally requires the payment of the appropriate fee set forth in that ordinance. The amount of the fee required to be paid may vary depending upon a variety of factors, including type of development application submitted and the applicability of any fee reduction or exemption provisions contained in Riverside County Ordinance No. 663. Said fee shall be calculated on the size of the grading permit being granted. If the development is

subsequently revised, this acreage amount may be modified in order to reflect the revised development project acreage amount. In the event Riverside County Ordinance No. 663 is rescinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 663 be rescinded and superseded by a subsequent mitigation fee ordinance, payment of he appropriate fee set forth in that ordinance shall be required."

30.PLANNING 029
PRIOR TO ANY PROJECT APPROVAL

SP - POST GRADING REPORT

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMITS, the project applicant shall provide to the Planning Department a post grading report. The report shall describe how the mitigation and monitoring program as described in the EIR and pre-grading agreements with the qualified archaeologist,paleontologist, and tribal representatives were complied with."

30.PLANNING 030
PRIOR TO ANY PROJECT APPROVAL

SP - SCHOOL MITIGATION

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO BUILDING PERMITS, impacts to the Nuview Union School District shall be mitigated in accordance with state law."

30.PLANNING 031
PRIOR TO ANY PROJECT APPROVAL

SP - ARCHAE0LOGIST RETAINED

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any land division or development permit (use permit, plot plan, etc.), a condition of approval shall be applied to the land division or development/use permit to ensure that the unique archaeological resources identified in the Cultural Resources Report (PD-A-4426, prepared by SRI in 2008) entitled "'Mystic Paavo': Cultural Resources Survey and Evaluation of The Villages of Lakeview Specific Plan, Riverside County, California", prepared as part of this adequately addressed in accordance with the adopted Cultural Resources Management Plan contained in PD-A-4426, and any adopted implementation-level mitigation plan as described in the project EIR.

Prior to the issuance of grading permits, an archaeologist certified by the County (Project Archaeologist) shall be retained by the developer/permit holder for archaeological monitoring and any necessary mitigation measures. All areas within the specific plan shall have full time archaeological monitoring. A pre-grading meeting between the Project Archaeologist, Native American observers (SI Monitors), the grading contractor, and the developer's representative (On-site Superintendent) shall take place. All pre-grade meetings shall include a cultural sensitivity component for the grading contractor presented by the Project Archaeologist and the SI Monitors. During grading operations, the Project Archaeologist (or the Project Archaeologist's on-site representative) and the SI Monitors shall actively monitor all project related

grading within the specific plan area and related off-site areas when deemed necessary by the Project Archaeologist, the Project Archaeologist's on-site representative (s), or SI Monitor, the Project Archaeologist shall notify the On-site Superintendent to temporarily divert, redirect, or halt grading activity to allow recovery of unique archaeological resources. Prior to the issuance of any grading permits, a copy of a fully executed contract for archaeological monitoring, including the NAME, ADDRESS and TELEPHONE NUMBER of the retained Project Archaeologist shall be submitted to the Planning Department (County Archaeologist) and the B&S Grading Division for review and acceptance.

30.PLANNING 034
PRIOR TO ANY PROJECT APPROVAL

SP - ENTRY MONUMENTATION

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO THE ISSUANCE OF BUILDING PERMITS, the following language shall be added to the landscaping requirements of the implementing project:

1.All monumentation shall be in substantial conformance to the VILLAGE REFINMENT PLAN for the respective VILLAGE of the SPECIFIC PLAN.

2.Landscaping of entry monument(s) shall comply with Ordinance No. 859 (as adopted and any amendments thereto) and the Riverside County Guide to California Friendly Landscaping."

30.PLANNING 036
PRIOR TO ANY PROJECT APPROVAL

SP - PALEO PRIMP & MONITOR

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition ("60 series" = prior to issuance of grading permits) shall be placed on the implementing project:

Based on the Paleontological Resource Assessemt prepared for this development (SP00342), entitled "Paleontological Resource Assessment, The Villages of Lakeview, Riverside County, California", prepared by LSA March 2007, the proposed development's potential to impact paleontological resources is high. Hence,

PRIOR TO ISSUANCE OF ANY GRADING PERMIT, THE FOLLOWING SHALL BE SUBMITTED TO AND APPROVED BY THE COUNTY GEOLOGIST:

A Paleontological Resource Impact Mitigation Program (PRIMP) report that includes, at a minimum, the following:

1.Description of the proposed site and planned grading operations.

2.Description of the level of monitoring required for all earth-moving activities in the project area.

3.Identification and qualifications of the qualified paleontological monitor to be employed for grading operations monitoring.

4.Identification of personnel with authority and responsibility to temporarily halt or divert grading equipment to allow for recovery of large specimens.

5.Means and methods to be employed by the paleontological monitor to quickly salvage fossils as they are unearthed to avoid construction delays.

6.Sampling of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates.

7.Procedures and protocol for collecting and processing of samples and specimens.

8.Fossil identification and curation procedures to be employed.

9.Identification of the permanent repository to receive any recovered fossil material. * The County of Riverside must be consulted on the repository/museum to receive the fossil material prior to being curated.

10.All pertinent exhibits, maps and references.

11.Procedures for reporting of findings.

12.Identification and acknowledgement of the developer for the content of the PRIMP as well as acceptance of financial responsibility for monitoring, reporting and curation fees.

All reports shall be signed by the qualified paleontologist and all other professionals responsible for the report's content (eg. Professional Geologist), as appropriate. Two wet-signed original copies of the report shall be submitted to the office of the County Geologist along with a copy of this condition and the grading plan for appropriate case processing and tracking. These documents should not be submitted to the project Planner, the Plan Check staff, the Land Use Counter or any other County office. In addition, the applicant shall submit proof of hiring (i.e. copy of executed contract, retainer agreement, etc.) a qualified paleontologist for the in-grading implementation of the PRIMP."

30.PLANNING 037
PRIOR TO ANY PROJECT APPROVAL

SP - LC LNDSCP COMMON AREA MT

Status: **INEFFECT**

Conditions: **Outstanding**

Prior to the approval of any implementing land division project within the SPECIFIC PLAN (i.e. tract map or parcel map), the following condition shall be placed on the implementing application:

"PRIOR TO MAP RECORDATION, the following procedures for common area maintenance procedures shall be complied with:

a.A permanent master maintenance organization shall be established for the specific plan area to assume ownership and maintenance responsibility for all common recreation, open space, circulation systems and landscaped areas. The organization may be public or private. Merger with an area-wide or regional organization shall satisfy this condition provided that such organization is legally and financially capable of assuming the responsibilities for ownership and maintenance. If the organization is a private association then neighborhood associations shall be established for each residential development, where required, and such associations may assume ownership and maintenance responsibility for neighborhood common areas.

b.Unless otherwise provided for in these conditions of approval, common open areas

shall be conveyed to the maintenance organization as implementing development is approved or any subdivision as recorded.

c.The maintenance organization shall be established prior to or concurrent with the recordation of the first land division. Any agreements with the maintenance organization shall stipulate that maintenance of landscaped areas will occur in accordance with Ordinance No. 859 (as adopted and any amendments thereto) and the Riverside Guide to California Friendly Landscaping.

d.Covenants, Conditions, and Restrictions for the SPECIFIC PLAN shall prohibit the use of water-intensive landscaping and require the use of low water use landscaping pursuant to the provisions of Ordinance No. 859 (as adopted and any amendments thereto).

Covenants, Conditions, and Restrictions for the SPECIFIC PLAN shall incorporate provisions concerning landscape irrigation system management and maintenance for the purpose of facilitating the water-efficient landscaping requirements of Ordinance No. 859 (as adopted and any amendments thereto). The common areas to be maintained by the master maintenance organization shall include, but not be limited to, the following: Planning Area(s) _____"

30.PLANNING 039
PRIOR TO ANY PROJECT APPROVAL

SP - LC PARK PLANS REQUIRED

Status: **INEFFECT** **Conditions:** **Outstanding**

All detailed park plans shall be submitted to and approved by the Planning Department, with consultation from the CSA 146 or similar provider for all park sites. The detailed park plans shall conform with the design criteria of the VILLAGE REFINMENT PLAN for the respective VILLAGE. All plans must also conform to Ordinance No. 859 (as adopted and any amendments thereto), and the Riverside County Guide to California Friendly Landscaping. The park plans need not be working drawings, but shall include landscape and irrigation plans, descriptions and placement of recreational facilities and documentation evidencing a permanent maintenance mechanism for the park and its facilities.

30.PLANNING 040
PRIOR TO ANY PROJECT APPROVAL

SP - AG SETBACKS

Status: **INEFFECT** **Conditions:** **Outstanding**

All proposed residences, school buildings, and commercial structures shall be setback a minimum of 300 feet from active agricultural uses of an offensive nature at the time implementing project approval. Agricultural uses of an offensive nature shall be defined as: corrals, chicken houses, dairy waste ponds, manure stockpiles, commercial livestock. This setback shall not apply to areas of the project where Ramona Expressway intervenes between active agriculture and proposed development. The 300 foot setback may include public or private road rights-of-way, parking lots, and service or maintenance areas. The setback shall apply to all existing interim conditions as they exist at the time of any implementing project approval.

30.PLANNING 041
PRIOR TO ANY PROJECT APPROVAL

SP - BLD PERM/DWLNG TRK

Status: **INEFFECT** **Conditions:** **Outstanding**

Prior to the approval of any implementing project, the applicant shall provide a "SP342 Total Dwelling Unit Tracking Spreadsheet." This spreadsheet shall be considered part of the SPECIFIC PLAN. Over time, this spreadsheet will track per

Planning Area entitled units, tentative tract map units, final map recorded units and units actually built within every Planning Area in the SPECIFIC PLAN. The purpose of this tracking sheet is to enable the Planning Department to ensure compliance with the established Planning Area development ranges as outlined in Table B.11.5 of the SPECIFIC PLAN. This sheet will also be used to ensure constancy with the separate tracking spread sheet referenced in condition 10.Planning.10 DU/BUILDING PERMIT MATRIX.

This condition cannot be DEFERRED or set to NOT APPLICABLE"

30.PLANNING 042
PRIOR TO ANY PROJECT APPROVAL

SP - PUB LAND ARC MAINT

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing projects containing or within 500 feet of a known archaeological resource as indicated in the EIR, the applicant shall provide evidence to the Planning Director of a secured and fully executed agreement with an entity or tribe, accepted by the Planning Director, for the long-term stewardship of all archaeological resources within all lands to be dedicated to the RCA, or Planning Areas 60, 70, 78, 81, 84, and 86. Said entity shall have the expertise to manage and protect significant prehistoric cultural resources in archaeological settings. Funding, if required, for long-term stewardship shall be secured by the applicant as part of said agreement so that no burden to the RCA shall be implied. Said stewardship shall last at least fifty (50) years from the date of the conveyance of the land to the RCA unless other options are identified in the specific addenda to the CRMP. The RCA shall grant any and all access easements necessary to maintain said sites. All maintenance activity shall be done in cooperation with all affected tribes and the County Archeologist or designated appointee. Long-term management of any archaeological resource conveyed to the RCA shall be in accordance with applicable addenda to the Cultural Resource Management Plan and any Site Protection Plans prepared pursuant to the CRMP. This condition applies separately and uniquely to each implementing project that may require an addendum to the CRMP and which affects archaeological sites for which SPPs are prepared. The entity to manage long-term-stewardship of preserved sites for each implementing project shall be identified in the SPP prepared for that project.

30.PLANNING 043
PRIOR TO ANY PROJECT APPROVAL

SP - PUBLIC ART

Status: INEFFECT **Conditions:** Outstanding

Public art and/or historic interpretation art or exhibits, shall be incorporated into the project as outlined in Mitigation Measure land Use 3 of the EIR.

This condition shall only be added to the VILLAGES that contain the appropriate number of units to trigger the dwelling unit count. Once met, the condition shall not be added to other VILLAGE condition sets.

30.PLANNING 044
PRIOR TO ANY PROJECT APPROVAL

SP - HUNTING NOISE

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the Resort VILLAGE of the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project as a 90 series condition:

"In regards of Hunting noise notification, the project shall comply with all requirements of Mitigation Measure Noise 11 of the EIR."

30.PLANNING 046
PRIOR TO ANY PROJECT APPROVAL

SP - INTERIM FACILITIES

Status: INEFFECT **Conditions:** Outstanding

Each Implementing Project shall construct any required interim/temporary facilities to alleviate flooding and water quality impacts associate with each proposed phase of development as outlined in Mitigation Measure Utility 3 of the EIR.

30.PLANNING 048
PRIOR TO ANY PROJECT APPROVAL

SP - RAMONA WALL DESIG

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the Resort VILLAGE of the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"The perimeter walls along the Ramona Expressway shall incorporate aesthetic elements to break up the singular consistent massing. Aesthetic elements shall include but not be limited to the following: Undulation, change in materials, enhanced landscaping, and break points at least every 200 feet shall be used to add interest to both the community wall and/or the sound wall, whichever is visible from the Ramona Expressway. This wall shall also incorporate different finish elements and similar devises to add articulation and shadow to the design. The final wall details, including any alternatives to those proposed in this condition, shall be to the satisfaction of the Planning Director."

30.PLANNING 049
PRIOR TO ANY PROJECT APPROVAL

SP - SCENIC HWAY SETBACK

Status: INEFFECT **Conditions:** Outstanding

The General Plan LU 13.4 states"Maintain at least a 50-foot setback from the edge of the right-of-way for new development adjacent to Designated and Eligible State and County Scenic Highways." The project shall be required to provide a 50 foot Scenic Highway Corridor setback along the Ramona Expressway and it shall be visible from the ultimate Right of Way and fully landscaped. In the event that the General Plan Policy no longer applies, this condition shall no longer apply.

30.PLANNING 050
PRIOR TO ANY PROJECT APPROVAL

SP - *CNT RES BLD PERM

Status: INEFFECT **Conditions:** Outstanding

This Condition is applied to assist the Planning Department with tracking the build-out of each VILLAGE within the SPECIFIC PLAN.

Each VILLAGE within the SPECIFIC PLAN shall receive a different development level designation when the VILLAGE REFINEMENT PLAN application is filed. All subsequent implementing projects, including any processed concurrently with the VILLAGE REFINEMENT PLAN shall be attached to the development level designation for the corresponding VILLAGE REFINEMENT PLAN. This condition shall be applied to each VILLAGE REFINEMENT PLAN to automatically count the development of all new residential dwelling units for that VILLAGE on the County's Land Management System. Accordingly, this condition will not allow more than _____ residential

dwelling units to be issued within the VILLAGE.

The total dwelling unit count shall be tracked in a separate spreadsheet by the Planning Director or his designee and updated by the applicants for each new project. This is part of the application submittal requirements per the SPECIFIC PLAN.

30.PLANNING 051
PRIOR TO ANY PROJECT APPROVAL

SP - SCHOOL MITIGATION

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"PRIOR TO BUILDING PERMITS, impacts to the Perris High School Union School District shall be mitigated in accordance with state law."

30.PLANNING 053
PRIOR TO ANY PROJECT APPROVAL

SP - CULTURAL RESOURCES REPORT

Status: INEFFECT **Conditions:** Outstanding

Prior to approval of any implementing project within the SPECIFIC PLAN (i.e.: tract map, parcel map, use permit, plot plan, etc.), the following condition shall be placed on the implementing project:

"Prior to final inspection of the first building permit for any phase of work within the Specific Plan, the developer/permit holder shall prompt the Cultural Resources Professional (Project Archaeologist) to submit two (2) certified copies of a Phase IV Cultural Resources Monitoring report that complies with the Riverside County Planning Department's requirements for such reports. The report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meetings. The Planning Department (County Archaeologist) shall review the report to determine adeqate mitigation compliance. Provided the report is adequate, the Planning Department shall clear this condition. Final copies of all reports shall also be submitted to the Eastern Information Center and the appropriate tribes represented by the Special Interest Monitors."

30.PLANNING 054
PRIOR TO ANY PROJECT APPROVAL

SP - AFFORDABLE MONITORING AGR

Status: INEFFECT **Conditions:** Outstanding

Prior to the approval of any implementing project within the Specific Plan (Tentative Tract/Parcel Maps, Conditional Use Permits, Public Use Permits, Plot Plans and Temporary Use Permits (longer than 6 months), the following condition shall be placed on the implementing project verbatim (at "60 Series" prior to issuance of grading permits) -

"The applicant shall cause an agreement ("Monitoring Agreement") to be entered into by and between the applicant and the County of Riverside, through its Economic Development Agency (referred to as "EDA"). The Monitoring Agreement shall include, but not be limited to, the following: 1) a provision for an annual fee paid to EDA to administer the program, 2) provisions for annual inspections and audits by EDA to assure consistency with the terms of the Monitoring Agreement, 3) a minimum term of affordability, 4) provisions for covenants and deed restrictions on all structures for the life of the Agreement and other applicable law."

30.TRANS 001
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/IMPROVEMENTS

Status: INEFFECT **Conditions:** Outstanding

All roads shall be improved to the recommended General Plan or Specific Plan designation, as approved by the County Board of Supervisors, or as approved by the Transportation Department. If there is a conflict between the General Plan and Specific Plan, the General Plan designation would prevail unless specific findings are made by the County that the Specific Plan improvement is consistent with the General Plan.

30.TRANS 002
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/WRCOG TUMF

Status: INEFFECT **Conditions:** Outstanding

The project proponent shall be required to pay the Transportation Uniform Mitigation Fee (TUMF) in accordance with the fee schedule in effect at the time of issuance of a building permit, pursuant to Ordinance No. 824.

30.TRANS 003
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/PAYMENT OF RBBD FEE

Status: INEFFECT **Conditions:** Outstanding

Prior to the issuance of building permits for any implementing project for SP 342, each implementing project within any phase of SP 342 shall be asked to pay the RBBD fee once it has been established and adopted. In the event the RBBD is not formed prior to the time when an implementing project is ready to record a map or obtain a building permit (for non-residential projects), the proponent of the implementing project will have the option of paying an estimated RBBD fee or constructing those RBBD roadway improvements identified by the Transportation Department based on the Traffic Impact Study Report needed to mitigate its proportional share of cumulative impacts, or as approved by the Transportation Department.

Proposed project-level mitigation measures shall be coordinated with the RBBD to ensure that they are in conformance with the ultimate improvements planned by the RBBD. The applicant shall be eligible to receive proportional credits against the RBBD for construction of project level mitigation included in the RBBD.

30.TRANS 004
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS REQUIRED

Status: INEFFECT **Conditions:** Outstanding

The project proponent shall prepare a traffic impact study for each "Village" of development within the SP. The Village-level traffic analysis will be a refinement of the SP Traffic Impact Analysis. Traffic studies for individual implementing projects may be required for individual implementing projects within the boundaries of Specific Plan No. 342, at the discretion of the Transportation Department. Traffic studies for individual implementing projects, if needed, shall identify the impacts of the implementing project and needed roadway improvements to be constructed prior to each implementing project.

If development within SP 342 occurs in a different order than stated in 10 TRANS SP - SP342/TS DEF. OF PHASE, or if phases overlap substantially, a new traffic study may

be required to determine if any improvements from the prior un-built phase need to be constructed to mitigate impacts by the phase being developed.

30.TRANS 005
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/RAMONA EXPRWY IMPR.

Status: **INEFFECT**

Conditions: **Outstanding**

Prior to the 1st occupancy, applicant shall:

Widen Ramona Expressway to 4 lanes from westerly of Lakeview to easterly of Hansen Signalize the intersection at Lakeview Avenue and Ramona Expressway.

At such time as the project phasing requires the construction of AA Street and its connection via Reservoir Avenue to Ramona Expressway, applicant shall install a traffic signal at the intersection of Reservoir Avenue and Ramona Expressway, connect Reservoir Avenue to Lakeview Avenue via an alignment approved by the Transportation Department, and close the intersection at Lakeview Avenue and Ramona Expressway. The new signal at Reservoir Avenue and Ramona Expressway is eligible for traffic signal fee credit in accordance with the County's DIF Program.

As an alternative, the project proponent shall provide a village-level traffic study to demonstrate that an interim/temporary solution is possible to mitigate the traffic impacts of the project and to provide accessibility until the grade separated interchange at Reservoir Avenue and Ramona Expressway is completed.

Prior to the issuance of occupancy permits for the 1,201st dwelling unit, or an equivalent amount of non-residential building permits:

_Applicant shall widen Ramona Expressway to 4 lanes with a median between Lakeview Avenue and the existing 4-lane section of Ramona Expressway located easterly of the City of Perris, OR

_The County shall have awarded a construction contract, with full funding in place, for this improvement.

_The widening of this section of Ramona Expressway may require construction of a bridge. The project shall receive credit against the TUMF fees and RBBD fees for this improvement. In the event that the cost of these improvements exceeds the project's TUMF and RBBD contributions for this phase, County shall make its best efforts to secure additional funds from the TUMF Program or other Regional funding programs administered by WRCOG or RCTC to contribute the additional funding, and/or identify funds collected from other development in the proposed Lakeview/Nuevo RBBD area to fully fund these improvements.

_In addition to the County's efforts to secure funding for the road widening and bridge improvements from WRCOG and RCTC, applicant will establish a Community Facilities District (CFD) or other acceptable funding mechanism to fully fund any shortfall in the delivery of the four lane improvement. The funds generated by the CFD shall be used to fund the improvements and applicant shall receive corresponding credits against RBBD and TUMF fees that the current or future phase of development would generate.

_The applicant shall install a traffic signal at Bridge Street/Ramona Expressway, and widen Ramona Expressway to 4 through lanes through the intersection, this improvement is eligible for traffic signal fee credit, or

_The County shall have awarded a construction contract, with full funding in place, for

this improvement.

Prior to the issuance of occupancy permits for the 2,201st dwelling unit, or an equivalent amount of non-residential building permits :

_Applicant shall widen Ramona Expressway to 4 through lanes with a median from Hansen Avenue easterly to 5th Street, OR

_The County shall have awarded a construction contract, with full funding in place, for this improvement.

_In the event that the cost of these improvements exceeds the project's TUMF and RBBD contributions for this phase, County shall make its best efforts to secure additional funds from the TUMF Program or other Regional funding programs administered by WRCOG or RCTC to contribute the additional funding, and/or identify funds collected from other development in the proposed Lakeview/Nuevo RBBD area to fully fund these improvements.

_In addition to the County's efforts to secure funding for the road widening improvements from WRCOG and RCTC, applicant will establish a Community Facilities District (CFD) for its then current phase of development. The funds generated by the CFD shall be used to fund the improvements and applicant shall receive corresponding credits against RBBD and TUMF fees that the current phase of development would generate.

Prior to the issuance of occupancy permits for the 4,001st dwelling unit, or an equivalent amount of non-residential building permits:

_Applicant shall widen Ramona Expressway to 4 lanes with a striped median from 5th Street to connect to the existing 4 lane section west of Warren Road, Or

_The County shall have awarded a construction contract, with full funding in place, for this improvement.

_In the event that the cost of these improvements exceeds the project's TUMF and RBBD contributions for this phase, County shall make its best efforts to secure additional funds from the TUMF Program or other Regional funding programs administered by WRCOG or RCTC to contribute the additional funding, and/or identify funds collected from other development in the proposed Lakeview/Nuevo RBBD area to fully fund these improvements.

_In addition to the County's efforts to secure funding for the road widening improvements from WRCOG and RCTC, applicant will establish a Community Facilities District (CFD) for its then current phase of development. The funds generated by the CFD shall be used to fund the improvements and applicant shall receive corresponding credits against RBBD and TUMF fees that the current phase of development would generate.

Prior to the issuance of occupancy permits for the 8,681st dwelling unit, or an equivalent amount of non-residential building permits:

_Applicant shall widen Ramona Expressway from Reservoir Avenue to Hansen Avenue from 4 lanes to 6 lanes or provide equivalent capacity through 4 lanes with grade separations at intersections, OR

_The County shall have awarded a construction contract, with full funding in place, for this improvement.

_In the event that the cost of these improvements exceeds the project's TUMF and RBBD contributions for this phase, County shall make its best efforts to secure additional funds from the TUMF Program or other Regional funding programs administered by WRCOG or RCTC to contribute the additional funding, and/or identify funds collected from other development in the proposed Lakeview/Nuevo RBBD area to fully fund these improvements.

_In addition to the County's efforts to secure funding for the road widening improvements from WRCOG and RCTC, applicant will establish a Community Facilities District (CFD) for its then current phase of development. The funds generated by the CFD shall be used to fund the improvements and applicant shall receive corresponding credits against RBBD and TUMF fees that the current phase of development would generate.

Prior to the issuance of occupancy permits for the 9,141st dwelling unit, or an equivalent amount of non-residential building permits:

_Applicant shall widen Ramona Expressway from Hansen Avenue to Park Center Boulevard from 4 lanes to 6 lanes or provide equivalent capacity through 4 lanes with grade separations at intersections, OR

_The County shall have awarded a construction contract, with full funding in place, for this improvement.

_In the event that the cost of these improvements exceeds the project's TUMF and RBBD contributions for this phase, County shall make its best efforts to secure additional funds from the TUMF Program or other Regional funding programs administered by WRCOG or RCTC to contribute the additional funding, and/or identify funds collected from other development in the proposed Lakeview/Nuevo RBBD area to fully fund these improvements.

_In addition to the County's efforts to secure funding for the road widening improvements from WRCOG and RCTC, applicant will establish a Community Facilities District (CFD) for its then current phase of development. The funds generated by the CFD shall be used to fund the improvements and applicant shall receive corresponding credits against RBBD and TUMF fees that the current phase of development would generate.

Prior to the issuance of occupancy permits for the 9,551st dwelling unit, or an equivalent amount of non-residential building permits:

_Applicant shall widen Ramona Expressway from Reservoir Avenue westerly to the Perris City limits from 4 lanes to 6 lanes or provide equivalent capacity through 4 lanes with grade separations at intersections, OR

_The County shall have awarded a construction contract, with full funding in place, for this improvement.

_In the event that the cost of these improvements exceeds the project's TUMF and RBBD contributions for this phase, County shall make its best efforts to secure additional funds from the TUMF Program or other Regional funding programs administered by WRCOG or RCTC to contribute the additional funding, and/or identify funds collected from other development in the proposed Lakeview/Nuevo RBBD area to fully fund these improvements.

_In addition to the County's efforts to secure funding for the road widening and

bridge improvements from WRCOG and RCTC, applicant will establish a Community Facilities District (CFD) for its then current phase of development. The funds generated by the CFD shall be used to fund the improvements and applicant shall receive corresponding credits against RBBD and TUMF fees that the current phase of development would generate.

Prior to the issuance of occupancy permits for the 9,811th dwelling unit, or an equivalent amount of non-residential building permits:

_Applicant shall widen Ramona Expressway from Park Center Boulevard to Bridge Street from 4 lanes to 6 lanes or provide equivalent capacity through 4 lanes with grade separations at intersections, OR

_The County shall have awarded a construction contract, with full funding in place, for this improvement.

_In the event that the cost of these improvements exceeds the project's TUMF and RBBD contributions for this phase, County shall make its best efforts to secure additional funds from the TUMF Program or other Regional funding programs administered by WRCOG or RCTC to contribute the additional funding, and/or identify funds collected from other development in the proposed Lakeview/Nuevo RBBD area to fully fund these improvements.

_In addition to the County's efforts to secure funding for the road widening improvements from WRCOG and RCTC, applicant will establish a Community Facilities District (CFD) for its then current phase of development. The funds generated by the CFD shall be used to fund the improvements and applicant shall receive corresponding credits against RBBD and TUMF fees that the current phase of development would generate.

30.TRANS 006
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS INSTALLATION

Status: **INEFFECT**

Conditions: **Outstanding**

To the extent that others have not installed the signals prior to the time they are needed for SP 342, the proponent of SP 342 and all subsequent implementing projects within the Specific Plan shall be responsible for design, construction, and installation of traffic signals at the following off-site intersections or as approved by the Transportation Department.

The timing of the off-site signal needs in each phase will be determined based on detailed village-level traffic studies.

The need for signals at on-site intersections will be determined based on detailed village-level traffic studies.

Phase 1A Signals

The following signals shall be installed prior to the issuance of the 1601st residential occupancy permit, or the issuance of an equivalent amount of non-residential building permits, or earlier if determined to be necessary on the basis of village-level traffic studies:

Bridge Street (NS) at Ramona Expressway (EW) Lakeview Avenue (NS) at Ramona Expressway (EW) - temporary connection, disconnected when signal or grade separation is installed at Reservoir Avenue (realigned) (NS) at Ramona Expressway (NS) Hansen Avenue/Davis Road (NS) at Ramona Expressway (EW) (modification)

On-site signals as needed to support development

Additional Signals in Phase 1B

The following signals shall be installed prior to the issuance of the 3201st residential occupancy permit, or the issuance of an equivalent amount of non-residential building permits, or earlier if determined to be necessary on the basis of village-level traffic studies:

Reservoir Avenue (NS) at 10th Street (EW) 5th Street/Town Center Boulevard (NS), or location in vicinity, at Ramona Expressway (EW) - temporary signal, disconnected when Town Center is connected to Ramona Expressway at its ultimate location - Menifee Road (NS) at Nuevo Road (EW) On-site signals as needed to support development

Additional Signals in Phase 2

The following signals shall be installed prior to the issuance of the 5,101st residential occupancy permit, or the issuance of an equivalent amount of non-residential building permits, or earlier if determined to be necessary on the basis of village-level traffic studies:

Bridge Street (NS) at Gilman Springs Road (EW) Yucca Avenue (NS) at 10th Street (EW) On-site signals as needed to support development

Additional Signals in Phase 3A

The following signals shall be installed prior to the issuance of the 6,801st residential occupancy permit, or the issuance of an equivalent amount of non-residential building permits, or earlier if determined to be necessary on the basis of village-level traffic studies:

Menifee Road (NS) at San Jacinto Road (EW) Menifee Road (NS) at Mapes Road (EW) Menifee Road (NS) at Nuevo Road (EW) (relocated) Reservoir Avenue (NS) at 10th Street (EW) (Modification to add lanes) Park Center Boulevard (NS), or location in vicinity, at Ramona Expressway(EW) - temporary signal to be removed when Park Center is connected to Ramona Parkway at its ultimate location. Yucca Avenue (NS) at 10th Street (EW) (Modification to add lanes) On-site signals as needed to support development

Additional Signals in Phase 3B

The following signals shall be installed prior to the issuance of the 9,081st residential occupancy permit, or the issuance of an equivalent amount of non-residential building permits, or earlier if determined to be necessary on the basis of village-level traffic studies:

Foothill Avenue (NS) at Nuevo Road (EW) Antelope Road (NS) at Nuevo Road (EW) - On-site signals as needed to support development

30.TRANS 007
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS PHASE1A RD IMPR.

Status: **INEFFECT**

Conditions: **Outstanding**

The SP 0342 proponent and subsequent implementing projects shall make the following roadway improvements:

Roadways internal to the project shall be constructed as needed for development; as determined on the basis of village-level traffic studies.

30.TRANS 008
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS PHASE1B RD IMPR.

Status: **INEFFECT** **Conditions:** **Outstanding**

Additional Roadway Improvements in PHASE 1B

Prior to the issuance of the 2,391st residential occupancy permit, or building permit for an equivalent amount of non-residential buildings, the applicant shall construct Reservoir Avenue as a two-lane facility between Nuevo Road and 10th Street, OR funding for this improvement shall be assured, otherwise.

Prior to the issuance of the 2,581st residential occupancy permit, or building permit for an equivalent amount of non-residential buildings, the applicant shall improve Nuevo Road from two lanes to four lanes between Dunlap Road and Foothill Avenue, OR funding for this improvement shall be assured, otherwise.

Prior to the issuance of the 2,741st residential occupancy permit, or building permit for an equivalent amount of non-residential buildings, the applicant shall improve Nuevo Road from two lanes to four lanes between Foothill Avenue and Menifee Road, OR funding for this improvement shall be assured, otherwise.

Roadways internal to the project shall be constructed as needed for development; as determined on the basis of village-level traffic studies.

30.TRANS 009
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS PHASE2 RD IMPR.

Status: **INEFFECT** **Conditions:** **Outstanding**

Additional Roadway Improvements in PHASE 2

Prior to the issuance of the 4,331st residential occupancy permit, or building permit for an equivalent amount of non-residential buildings, the applicant shall improve 10th Street from two to four lanes between Reservoir Avenue and Hanson Avenue, OR funding for this improvement shall be assured, otherwise.

Roadways internal to the project shall be constructed as needed for development; as determined on the basis of village-level traffic studies.

30.TRANS 010
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS PHASE3A RD IMPR.

Status: **INEFFECT** **Conditions:** **Outstanding**

Additional Roadway Improvements in PHASE 3A

Prior to the issuance of the 6,671st residential occupancy permit, or building permit for an equivalent amount of non-residential buildings, the applicant shall improve Reservoir Avenue from two lanes to four lanes between Nuevo Road and 10th Street, OR funding for this improvement shall be assured, otherwise.

Roadways internal to the project shall be developed as needed for development and as determined on the basis of village-level traffic studies.

30.TRANS 011
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS PHASE3B RD IMPR.

Status: INEFFECT **Conditions:** Outstanding

Additional Roadway Improvements in PHASE 3B

Roadways internal to the project shall be developed as needed for development and as determined on the basis of village-level traffic studies.

30.TRANS 012
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS PH 1A GEOMETRICS

Status: INEFFECT **Conditions:** Outstanding

Intersection Improvements in Phase 1A

The following intersection improvements shall be provided prior to the issuance of the 1,601st residential occupancy permit, or the issuance of an equivalent amount of non -residential building permits, or earlier if determined to be necessary on the basis of village-level traffic studies:

The City of Perris and the County of Riverside are coordinating with Caltrans on the improvements at the I-215 interchange ramps. The following geometrics are included in the current Caltrans improvement plan for this intersection and are expected to be completed by this phase. The intersection of I-215 Southbound Ramps (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: N/A Southbound: one left-turn lane, one shared left-turn/through lane, one right-turn lane Eastbound: one through lane, one shared through/right-turn lane Westbound: one left-turn lane, two through lanes

The intersection of Hansen Avenue/Davis Road (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, one through lane, one shared through/right-turn lane Westbound: one left-turn lane, one through lane, one shared through/right-turn lane

The intersection of Lakeview Avenue (NS) at Ramona Expressway (EW) shall be improved to provide signalization and the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, one through lane, one right-turn lane Westbound: one left-turn lane, one through lane, one right-turn lane

The intersection of Lakeview Avenue (NS) at 10th Street (EW) shall be improved to provide signalization and the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, one through lane, one right-turn lane Westbound: one left-turn lane, one shared through lane/right-turn lane

The intersection of Reservoir Avenue (NS) at 10th Street shall be improved to provide the following geometrics:

Northbound: one shared left turn/through/right-turn lane Southbound: one shared left turn/through/right-turn lane Eastbound: one shared left turn/through/right-turn lane Westbound: one shared left turn/through/right-turn lane

**The intersection of Bridge Street (NS) at Ramona Expressway (EW), shall be improved to provide the following geometrics:

Northbound: N/A Southbound: one left-turn lane, one right-turn lane Eastbound: one left-turn lane, two through lanes Westbound: one left turn lane, two through lanes, one right-turn lane

30.TRANS 013
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS PH 1B GEOMETRICS

Status: **INEFFECT**

Conditions: **Outstanding**

Additional Intersection Improvements in PHASE 1B

The following intersection improvements shall be provided prior to the issuance of the 3,201st residential occupancy permit, or the issuance of an equivalent amount of non -residential building permits, or earlier if determined to be necessary on the basis of village-level traffic studies:

The intersection of Reservoir Avenue (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one through lane, one right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, one through lane, one right-turn lane Westbound: one through lane, one shared through/right-turn lane

OR

A village-level traffic study shall be provided to demonstrate that an interim/temporary solution is possible to mitigate the traffic impacts of the project and to provide accessibility until the grade separated interchange at Reservoir Avenue and Ramona Expressway is completed.

The intersection of 5th Street (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one right-turn lane Southbound: N/A Eastbound: two through lanes, one right-turn lane Westbound: one left-turn lane, two through lanes

The intersection of Reservoir Avenue (NS) at 10th Street shall be improved to provide signalization and the following geometrics:

Northbound: one left turn lane, one shared through/right-turn lane Southbound: one left turn lane, one shared through/right-turn lane Eastbound: one left turn lane, one shared through/right-turn lane Westbound: one left turn lane, one shared through/right-turn lane

The intersection of Lakeview Avenue (NS) at Nuevo Road (EW) shall be improved to provide the following geometrics:

Northbound: N/A Southbound: one left-turn lane, one right-turn lane Eastbound: one left-turn lane, one through lane Westbound: one shared through/right-turn lane

30.TRANS 014
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS PH 2 GEOMETRICS

Status: **INEFFECT**

Conditions: **Outstanding**

Additional Intersection Improvements in Phase 2

If, prior to the recordation of the first tract or the issuance of a building permit for any non-residential uses in Phase 2, funding is assured for the County-led improvements along the Ramona Expressway corridor, the conditions preceded by ** may be waved at the discretion of the County.

The following intersection improvements shall be provided prior to the issuance of the 5,101st residential occupancy permit, or the issuance of an equivalent amount of non -residential building permits, or earlier if determined to be necessary on the basis of village-level traffic studies:

**The intersection of Antelope Road (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one shared left-turn/right-turn lane Southbound: N/A Eastbound: one through lane, one shared through/right-turn lane Westbound: one left-turn lane, two through lanes

**The intersection of Bernasconi Road (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, one through lane, one shared through/right-turn lane Westbound: one left-turn lane, one through lane, one shared through/right-turn lane

**The intersection of Hansen Avenue/Davis Road (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, two through lanes, one right-turn lane Westbound: one left-turn lane, two through lanes, one right-turn lane

**The intersection of Town Center Boulevard (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, two through lanes, one right-turn lane Westbound: one left-turn lane, one through lane, one shared through/right-turn lane

**The intersection of Park Center Boulevard (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one right-turn lane Southbound: N/A Eastbound: two through lanes, one right-turn lane Westbound: one left-turn lane, two through lanes

The intersection of Bridge Street (NS) at Gilman Springs Road (EW) shall be improved

to provide the following geometrics:

Northbound: one left-turn lane, one right-turn lane Southbound: N/A Eastbound: one shared through/right-turn lane Westbound: one left-turn lane, one through lane

The intersection of Reservoir Avenue (NS) at 10th Street (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, two through lanes, one free flow right-turn lane Southbound: one left-turn lane, one through lane, one shared through/right-turn lane Eastbound: one left-turn lane, one through lane, one shared through/right-turn lane Westbound: two left-turn lanes, two through lanes, one right-turn lane

The intersection of Reservoir Road/Menifee Road (NS) at Nuevo Road (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one through lane, one right-turn lane Southbound: one left-turn lane, one through lane, one right-turn lane Eastbound: one left-turn lane, one shared through/right-turn lane Westbound: one left-turn lane, one shared through/right-turn lane

The intersection of Yucca Avenue (NS) at 10th Street (EW) shall be signalized and improved to provide the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, one through lane, one shared through/right-turn lane Westbound: one left-turn lane, one through lane, one shared through/right-turn lane

The intersection of Antelope Road (NS) at Nuevo Road (EW) shall be improved to provide the following geometrics:

Northbound: N/A Southbound: one shared left-turn/right-turn lane Eastbound: one left-turn lane, two through lanes Westbound: one through lane, one shared through/right-turn lane

The intersection of Lakeview Avenue (NS) at 10th Street (EW) shall be signalized and improved to provide the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, one through lane, one shared through/right-turn lane Westbound: one left-turn lane, one through lane, one shared through/right-turn lane

The intersection of Hansen Avenue (NS) at 10th Street (EW) shall be signalized and improved to provide the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, one through lane, one shared through/right-turn lane Westbound: one left-turn lane, one through lane, one shared through/right-turn lane

30.TRANS 015
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS PH 3A GEOMETRICS

Status: **INEFFECT**

Conditions: **Outstanding**

Additional Intersection Improvements in Phase 3A (Eastern Area)

If, prior to the recordation of the first tract in Phase 3A, or the issuance of a building permit for any non-residential uses in Phase 3A, the County-led improvements along the Ramona Expressway corridor have been constructed and open to traffic, the conditions preceded by ** may be waved at the discretion of the County.

The following intersection improvements shall be provided prior to the issuance of the 6,801st residential occupancy permit, or the issuance of an equivalent amount of non -residential building permits, or earlier if determined to be necessary on the basis of village-level traffic studies:

The City of Perris and the County of Riverside are coordinating with Caltrans on the improvements at the I-215 interchanges ramps. The above geometrics are included in the current Caltrans improvement plan for this intersection and are expected to be completed by this phase. The intersection of I-215 NB Ramps (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one shared left-turn/through lane, one right-turn lane Southbound: N/A Eastbound: one left-turn lane, two through lanes Westbound: two through lanes, one free-flow right-turn lane

The intersection of Antelope Road (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one shared left-turn/through lane, one right-turn lane Southbound: N/A Eastbound: two through lanes, one right-turn lane Westbound: one left-turn lane, two through lanes

**The intersection of Reservoir Avenue (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one through lane, one free flow right-turn lane Southbound: one left-turn lane, one through lane, one right-turn lane Eastbound: one left-turn lane, two through lanes, one right-turn lane Westbound: two left-turn lanes, two through lanes, one right-turn lane

**The intersection of QQ Street/Town Center Boulevard (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: two left-turn lanes, one through lane, one right-turn lane Southbound: one left-turn lane, one through lane, one right-turn lane Eastbound: one left-turn lane, two through lanes, one free flow right-turn lane Westbound: one left-turn lane, two through lanes, one right-turn lane

**The intersection of Park Center Boulevard (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one free flow right-turn lane Southbound: N/A Eastbound: two through lanes, one right-turn lane Westbound: two left-turn lanes, two through lanes

**The intersection of Bridge Street (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: N/A Southbound: one left-turn lane, one right-turn lane Eastbound: one

left-turn lane, two through lanes Westbound: two through lanes, one right-turn lane

**The intersection of Warren Road (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: two left-turn lanes, one shared through/right-turn lane Southbound: one shared left-turn/through/right-turn lane Eastbound: one left-turn lane, two through lanes, one right-turn lane Westbound: one left-turn lane, two through lanes, one right -turn lane

The intersection of Reservoir Avenue (NS) at 9th Street (EW) shall be improved to provide the following geometrics:

Northbound: one through lane, one shared through/right-turn lane Southbound: one left-turn lane, two through lanes Eastbound: N/A Westbound: one shared left-turn/right-turn lane

The intersection of Reservoir Avenue (NS) at 10th Street (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, two through lanes, one free flow right-turn lane Southbound: two left-turn lanes, one through lane, one shared through/right-turn lane Eastbound: one left-turn lane, one through lane, one shared through/right-turn lane Westbound: two left-turn lanes, two through lane, one right-turn lane

The intersection of Lakeview Avenue (NS) at 10th Street (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, one through lane, one shared through/right-turn lane Westbound: one left-turn lane, one through lane, one shared through/right-turn lane

The intersection of Antelope Road (NS) at Nuevo Road (EW) shall be improved to provide the following geometrics:

Northbound: N/A Southbound: one shared left-turn/right-turn lane Eastbound: one left-turn lane, two through lanes Westbound: one through lane, one shared through/right-turn lane

The intersection of Reservoir Road/Menifee Road (NS) at Nuevo Road (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, two through lanes, one right-turn lane Southbound: one left-turn lane, two through lanes, one free flow right-turn lane Eastbound: two left-turn lanes, one shared through/right-turn lane Westbound: one left-turn lane, one shared through/right-turn lane

The intersection of Menifee Road (NS) at San Jacinto Road (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one left-turn lane, one through lane, one right-turn lane Eastbound: one left-turn lane, one shared through/right-turn lane Westbound: one left-turn lane, one shared through/right-turn lane

30.TRANS 016
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS PH 3B GEOMETRICS

Status: **INEFFECT**

Conditions: **Outstanding**

Additional Intersection Improvements in Phase 3B (Western Area)

If, prior to the recordation of the first tract in Phase 3B, or the issuance of a Certificate of Occupancy for any non-residential uses in Phase 3B, the County-led improvements along the Ramona Expressway corridor have been constructed and open to traffic, the conditions preceded by ** may be waved at the discretion of the County.

The following intersection improvements shall be provided prior to the issuance of the 9,081st residential occupancy permit, or the issuance of an equivalent amount of non -residential building permits, or earlier if determined to be necessary on the basis of village-level traffic studies:

**The intersection of Antelope Road (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one right-turn lane Southbound: N/A Eastbound: two through lanes, one shared through/right-turn lane Westbound: one left-turn lane, three through lanes

**The intersection of Reservoir Avenue (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one through lane, one free flow right-turn lane Southbound: one left-turn lane, one through lane, one right-turn lane Eastbound: two left-turn lane, three through lanes, one right-turn lane Westbound: two left-turn lanes, three through lanes, one right-turn lane **The intersection of QQ Street/Town Center Boulevard (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: two left-turn lanes, one through lane, one right-turn lane Southbound: one left-turn lane, one through lane, one right-turn lane Eastbound: two left-turn lane, three through lanes, one free flow right-turn lane Westbound: two left-turn lane, three through lanes, one right-turn lane

**The intersection of Park Center Boulevard (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one free flow right-turn lane Southbound: N/A Eastbound: three through lanes, one right-turn lane Westbound: two left-turn lanes, three through lanes

**The intersection of Bridge Street (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: N/A Southbound: one left-turn lane, one right-turn lane Eastbound: one left-turn lane, three through lanes Westbound: three through lanes, one right-turn lane

**The intersection of Bernasconi Road (NS) at Ramona Expressway (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one shared through/right-turn lane Southbound: one

left-turn lane, one shared through/right-turn lane Eastbound: one left turn lane, two through lane, one shared through/right-turn lane Westbound: one left-turn lane, two through lane, one shared through/right-turn lane

The intersection of Hansen Avenue (NS) at 10th Street/SS Boulevard (EW) shall be improved to provide the following geometrics:

Northbound: one left-turn lane, one through lane, one right-turn lane Southbound: one left-turn lane, one shared through/right-turn lane Eastbound: one left-turn lane, two through lanes, one right-turn lane Westbound: one left-turn lane, one through lane, one shared through/right-turn lane

The intersection of Reservoir Avenue (NS) at 10th Street (EW) shall be improved to provide the following geometrics:

Northbound: two left-turn lanes, two through lanes, one free flow right-turn lane Southbound: two left-turn lanes, two through lanes, one right-turn lane Eastbound: two left-turn lanes, one through lane, one right-turn lane Westbound: two left-turn lanes, two through lanes, one right-turn lane

30.TRANS 017
PRIOR TO ANY PROJECT APPROVAL

SP - SP342/TS INTERIM IMPROVE.

Status: INEFFECT **Conditions:** Outstanding

All improvements listed for Phases 1A, 1B, 2, 3A, and 3B are requirements for interim conditions only. Full right-of-way and roadway half sections adjacent to the property for the ultimate roadway cross-section per the County's Road Improvement Standards and Specifications must be provided.

100.PLANNING 001
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - MONUM PLN REQ (1)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 2,601st building permit within the SPECIFIC PLAN, detailed plans for the Lakeview Nuevo Rural Gateway Entry, along the intersection of Hansen Avenue and 10th Street shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all requirements of the Department of Transportation and County Service Area No. 146 or similar provider The detailed monument plans shall conform to the design criteria as pictured in Exhibit 10 of the Lakeview Nuevo Design Guidelines.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 002
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - MONUM CONST (1)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING

MATRIX.

PRIOR TO THE ISSUANCE OF THE 3,201st building permit within the SPECIFIC PLAN, the Lakeview Nuevo Rural Gateway Entry, along the intersection of Hansen Avenue and 10th Street shall be constructed and fully operable with all required maintenance agreements secured.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 003
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - MONUM PLN REQ (2)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 2,601st building permit within the SPECIFIC PLAN, detailed plans for the Lakeview Nuevo Rural Gateway Entry, along the intersection of Lakeview Avenue and 10th Street shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all requirements of the Department of Transportation, and County Service Area No. 146 or similar provider. The detailed monument plans shall conform to the design criteria as pictured in Exhibit 10 of the Lakeview Nuevo Design Guidelines.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 004
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - MONUM CONST (2)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 3,201st building permit within the SPECIFIC PLAN, the Lakeview Nuevo Rural Gateway Entry, along the intersection of Lakeview Avenue and 10th Street shall be constructed and fully operable with all required maintenance agreements secured.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 005
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - COMM SEP PLN REQ

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 8,001st building permit within the SPECIFIC PLAN, detailed plans for the Lakeview Nuevo Rural Gateway Entry/Community Separator located at the far eastern edge of the SPECIFIC PLAN shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all County Service Area No. 146 or similar provider requirements. The detailed monument plans shall conform to the design criteria as pictured in the VILLAGE REFINEMENT PLAN for the Enclave VILLAGE and as specified in the SPECIFIC PLAN. Any CEQA review required for project implementation shall be performed independently.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 006
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - COMM SEP CONST

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 8,501st building permit within the SPECIFIC PLAN, the Lakeview Nuevo Rural Gateway Entry/Community Separator located at the far eastern edge of the SPECIFIC PLAN shall be constructed and fully operable with all required maintenance agreements secured.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 007
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - TRAIL HD PLANS REQ

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 8,001st building permit within the SPECIFIC PLAN, detailed plans for a Trail Head shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all County Service Area No. 146 or similar provider requirements. The Trail Head shall be located near the eastern edge of the SPECIFIC PLAN, or as located in the VILLAGE REFINEMENT PLAN for the Enclave VILLAGE. The detailed Trail Head plans shall conform to the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Enclave VILLAGE.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 008
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - TRAIL DH CONST

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean

"Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 8,501st dwelling unit permit within the SPECIFIC PLAN, the Trail Head located near the eastern edge of the SPECIFIC PLAN, or as located in the VILLAGE REFINEMENT PLAN for the Enclave VILLAGE shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the Trail Head be constructed and fully operable any later than five (5) years following the construction of the 8,001st dwelling unit.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 009
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PUB CTR PLANS REQ (1)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 3,701st building permit within the SPECIFIC PLAN, detailed plans for at least 20,000 square feet of the Community Center in Central Park shall be approved by the Planning Department. The plans shall reflect the total buildout of the entire planned campus as illustrated in the Specific Plan. Buildings beyond the required 20,000 center can be shown as conceptual only, but shall be shown for master planning purposes. The Planning Department shall ensure plans are consistent with all requirements of the County Service Area No. 146 or similar provider. The Community Center plans shall conform to the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Park VILLAGE as approved by the Planning Commission.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 010
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PUB CTR CONST (1)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE CONSTRUCTION OF THE 4,501st dwelling unit within the SPECIFIC PLAN, at least 20,000 square feet of the Community Center in Central Park shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the 20,000 square feet of the Community Center in Central Park be constructed and fully operable any later than five (5) years following the construction of the 4,001st dwelling unit.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 011
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PUB CTR PLANS REQ (2)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 6,501st building permit within the SPECIFIC PLAN, detailed plans for at least 20,000 square feet of the Community Center in Central Park shall be approved by the Planning Department. This shall be an additional 20,000 square feet to the 20,000 required in 100.Planning.09. The two shall provide a combined 40,000 of Community Center. The Planning Department shall ensure plans are consistent with all requirements of the County Service Area No. 146 or similar provider. The Community Center plans shall conform to the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Park VILLAGE as approved by the Planning Commission.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 012
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PUB CTR CONST (2)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE CONSTRUCTION OF THE 7,501st dwelling unit within the SPECIFIC PLAN, at least 20,000 square feet of the Community Center in Central Park shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the 20,000 square feet of the Community Center in Central Park be constructed and fully operable any later than five (5) years following the construction of the 7,001st dwelling unit.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 013
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - LIB PLANS REQ (1)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 601st building permit within the SPECIFIC PLAN, detailed plans for a joint use library within the school in the Resort shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all requirements of the County Librarian and County Service Area No. 146 or silimar provider. The library plans shall conform to the design criteria as

specified in the VILLAGE REFINEMENT PLAN for the Resort VILLAGE as approved by the Planning Commission. The library in the Resort is planned to be part of a school. In the event that the school changes its location the Planning Director can alter the terms of this Condition of Approval.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 014
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - LIB CONST (1)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 1,201st dwelling unit permit within the SPECIFIC PLAN, the library within the school in the Resort shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the library within the school in the Resort be constructed and fully operable any later than five (5) years following the construction of the 701st dwelling unit. In the event that the school changes its location the Planning Director can alter the terms of this Condition of Approval.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 015
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - LIB PLANS REQ (2)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 5,201st building permit within the SPECIFIC PLAN, detailed plans for a public library with at least 20,000 square feet within the Community Center campus in the Central Park shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all requirements of the County Librarian and County Service Area No. 146 or similar provider. The Library plans shall conform to the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Park VILLAGE as approved by the Planning Commission. The Library within the Community Center may not replace or cause to have closed the Library in the Resort VILLAGE.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 016
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - LIB CONST (2)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean

"Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 6,001st dwelling unit permit within the SPECIFIC PLAN, the Library within Central Park shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the Library within Central Park be constructed and fully operable any later than five (5) years following the construction of the 5,500st dwelling unit.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 017
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PB TRL PLN REQ (1)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 4,801st building permit within the SPECIFIC PLAN, detailed plans for a portion of the Parkbelt Trail shall be approved by the Planning Department. Said portion shall be between Hanson Avenue and the intersection of MM Boulevard and Park Center Boulevard on the eastern edge of Phase 2, substantially conforming with the Parkbelt Trail Exhibit shown in the VILLAGE REFINEMENT PLAN for the Park VILLAGE, or to the satisfaction of the Planning Director. The Planning Department shall ensure plans are consistent with all requirements of the Metropolitan Water District (MWD) and County Service Area No. 146 or similar provider. The final route design shall be in substantial conformance with the Parkbelt Trail Exhibit shown in the VILLAGE REFINEMENT PLAN for the Park VILLAGE as determined by the Planning Director and County Service Area No. 146 or similar provider and shall conform with the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Park VILLAGE as approved by the Planning Commission.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 018
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PB TRL CONST (1)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 5,501st dwelling unit permit within the SPECIFIC PLAN, the Parkbelt Trail referenced in condition 100.Planning.17, substantially conforming with the Parkbelt Trail Exhibit shown in the VILLAGE REFINEMENT PLAN for the Park VILLAGE, shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the Parkbelt Trail be constructed and fully operable any later than five (5) years following the construction of the 5001st dwelling unit.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 019
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PB TRL PLN REQ (2)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 7,801st building permit within the SPECIFIC PLAN, detailed plans for the Parkbelt Trail between the eastern edge of Phase 3a, which is the eastern edge of the SPECIFIC PLAN and the intersection of MM Boulevard and Park Center Boulevard on the western edge of Phase 3a, substantially conforming with the Parkbelt Trail Exhibit shown in the VILLAGE REFINEMENT PLAN for the Enclave VILLAGE, shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all requirements of the Metropolitan Water District (MWD) and County Service Area No. 146 or similar provider. The final route design shall be in substantial conformance with the Parkbelt Trail Exhibit shown in the VILLAGE REFINEMENT PLAN for the Pinnacle or Enclave VILLAGE as determined by the Planning Director and County Service Area No. 146 or similar provider and shall conform with the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Enclave or Pinnacle VILLAGE, whichever is first, as approved by the Planning Commission.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 020
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PB TRL CONST (2)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 8,501st dwelling unit permit within the SPECIFIC PLAN, the Parkbelt Trail between the eastern edge of Phase 3a, which is the eastern edge of the SPECIFIC PLAN and the intersection of MM Boulevard and Park Center Boulevard on the western edge of Phase 3a, substantially conforming with the Parkbelt Trail Exhibit as shown in the VILLAGE REFINEMENT PLAN for the Enclave or Pinnacle VILLAGE, shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the Parkbelt Trail be constructed and fully operable any later than five (5) years following the construction of the 8,001st dwelling unit.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 021
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - DG TRL PLN REQ (1)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 2,601st building permit within the SPECIFIC PLAN, detailed plans for the Lakeview Nuevo Design Guidelines Double Sided Trail along Hansen Avenue south of the intersection with the MWD Aqueduct property and north of Montgomery Avenue, shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all requirements of the Department of Transportation and County Service Area No. 146 or similar provider. The final design shall be in substantial conformance with the standards shown for Street 'A' in the Lakeview Nuevo Design Guidelines, or as approved by the Director of Planning. To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 022
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - DG TRL CONST (1)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 3,201st dwelling unit permit within the SPECIFIC PLAN, the Lakeview Nuevo Design Guidelines Double Sided Trail along Hansen Avenue between the intersection of Hanson Ave. and the MWD aqueduct and Montgomery Avenue shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the Double Sided Trail be constructed and fully operable any later than five (5) years following the construction of the 2,701st dwelling unit.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 023
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - DG TRL PLN REQ (2)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 2,601st building permit within the SPECIFIC PLAN, detailed plans for the Lakeview Nuevo Design Guidelines Double Sided Trail along Wolfskill Avenue between Hansen Avenue and Poppy Road, and a double sided trail along Poppy Road between Wolfskill Avenue and Corso Alto Avenue shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all requirements of the Department of Transportation and County Service Area No. 146 or similar provider. The final design shall be in substantial conformance with the standards shown for Street 'A' in the Lakeview Nuevo Design Guidelines, or as approved by the Director of Planning.

Alternatively, the trails should be constructed in conjunction with the streets specified in the condition. In the event that the street construction is not planned near the indicated building permit trigger point of this condition, then the timing of the implementation of this condition shall be subject to the Planning Directors discretion.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 024
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - DG TRL CONST (2)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 3,201st dwelling unit permit within the SPECIFIC PLAN, the Lakeview Nuevo Design Guidelines Double Sided Trail along a double sided trail along Wolfskill Avenue between Hanson Avenue and Poppy Road, and a double sided trail along Poppy Road between Wolfskill Avenue and Corso Alto Avenue shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the Double Sided Trail be constructed and fully operable any later than five (5) years following the construction of the 2,701st dwelling unit.

Alternatively, the trails should be constructed in conjunction with the streets specified in the condition. In the event that the street construction is not planned near the indicated building permit trigger point of this condition, then the timing of the implementation of this condition shall be subject to the Planning Directors discretion.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 025
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - GB TRL PLN REQ (1)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 101st building permit within the SPECIFIC PLAN, detailed plans for the Greenbelt Trail between the San Jacinto River main channel north of the Ramona Expressway bridge and Davis Road shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all requirements of the Riverside County Flood Control Department and County Service Area No. 146 or similar provider. The final route and design shall be determined by the applicant, the Director of Planning and County Service Area No. 146 or similar provider. A public maintenance provider shall also be identified prior to approval and all access easements required to perform maintenance shall be identified and recorded. The design of the trail shall be consistent with the standards shown in the Resort VILLAGE REFINEMENT PLAN, as approved by the Planning Commission. Any required non-public rights of way will be the responsibility of the applicant.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 026
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - GB TRL CONST (1)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 501st dwelling unit permit within the SPECIFIC PLAN, the Greenbelt Trail between San Jacinto River main channel north of the Ramona Expressway bridge and Davis Road shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the Greenbelt Trail be constructed and fully operable any later than five (5) years following the construction of the 1st dwelling unit.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 027
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - GB TRL PLN REQ (2)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 1,301st building permit within the SPECIFIC PLAN, detailed plans for the Greenbelt Trail between Davis Road and the far eastern edge of the Resort VILLAGE as depicted in the Resort VILLAGE REFINEMENT PLAN, shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all requirements of the Riverside County Flood Control Department and County Service Area No. 146 or similar provider. The final route and design shall be determined by the applicant, the Director of Planning and County Service Area No. 146 or similar provider A public maintenance provider shall also be identified prior to approval and all access easements required to perform maintenance shall be identified and recorded. The design of the trail shall be consistent with the standards shown in the Resort VILLAGE REFINEMENT PLAN, as approved by the Planning Commission. Any required non-public rights of way will be the responsibility of the applicant.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 028
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - GB TRL CONST (2)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING

MATRIX.

PRIOR TO THE ISSUANCE OF THE 1,751st dwelling unit permit within the SPECIFIC PLAN, the Greenbelt trail between Davis Road and the far eastern edge of the Resort VILLAGE as depicted in the Resort VILLAGE REFINEMENT PLAN, shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the Greenbelt Trail be constructed and fully operable any later than five (5) years following the construction of the 1,251st dwelling unit.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 029
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - TRANSIT CENTER

Status: **INEFFECT**
Conditions: **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 1,981st building permit within the SPECIFIC PLAN The Transit Center, in substantial conformance with the Resort VILLAGE REFINEMENT PLAN, including a bus stop opportunity and park-n-ride lot to facilitate carpooling and/or use of public transportation shall be constructed and fully operable with all required maintenance agreements secured. Additionally, this location may be temporary. As the Town Center Village builds out the applicant and the County will consult with RTA on possible alternative locations, closer to density.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 030
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - COMM GDN PLN REQ

Status: **INEFFECT**
Conditions: **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 1,375th building permit within the SPECIFIC PLAN, detailed park plans shall be approved by the Planning Department. The Planning Department shall ensure plans are consistent with all requirements of County Service Area No. 146 or similar provider. The detailed park plans shall conform to the design criteria outlined in the VILLAGE REFINEMENT PLAN for the Resort VILLAGE and as specified in the SPECIFIC PLAN. The park plans need not be working drawings, but shall include landscape and irrigation plans, descriptions and placement of recreational facilities and documentation evidencing a permanent maintenance mechanism for the park and its facilities.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 031
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - COMM GDN CONST

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 1,751st dwelling unit permit within the SPECIFIC PLAN, the Community Garden shall be constructed and fully operable with all required maintenance agreements secured; provided, however, in no event shall the Community Garden be constructed and fully operable any later than five (5) years following the construction of the 1,251st dwelling unit.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 034
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - COMM VEHICLE

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

Prior to the issuance of the 4,061st building permit within the Specific Plan, the Master Developer shall provide proof that a community vehicle was purchased or leased for operation by the Homeowners' Association (HOA). The vehicle shall provide weekday commuter service, at reasonable hours, at a reasonable operating cost to the HOA, between regional transit destinations and the transit center within the project site, at a minimum. Said vehicle shall be electric, utilize a hybrid electric/fuel operating system or equivalent in fuel reduction terms.

This condition cannot be DEFERRED or set to NOT APPLICABLE.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 035
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - ENV STEWARDHIP

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 1,600th building permit within the SPECIFIC PLAN proof of the establishment of an ongoing Environmental stewardship program shall be provided to the Director of Planning. The program shall include methods of community education such as interpretive and directional signs, demonstrations, and pamphlets. The types of information presented shall include, but not be limited to: lighting, noise, keeping on trails, wildlife, plants, habitats, barriers, domestic animals,

toxics such as pesticides, and invasive species.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 036
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - TRL UNDERCROSSING

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 9,141st building permit within the SPECIFIC PLAN the bridge and trail undercrossing located about one hundred and forty feet (140') to the west of the QQ Street (Town Center Blvd.) interchange along Ramona Expressway, shall be constructed and fully operable with all required maintenance agreements secured. The bridge and trail crossing shall be in substantial conformance with the depiction in the Resort VILLAGE REFINEMENT PLAN.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 037
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - OFF SITE PARKS

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

All entitlements necessary to construct the location(s) of offsite parks required to bring the project into conformance with the 5 acre per thousand standard, shall be completed prior to the issuance of the 1,000th residential building permit. Prior to clearance of this condition, the counter technicians shall contact the Planning Director for authorization.

This condition shall be added to each VILLAGE REFINEMENT PLAN condition set until the condition is satisfied. When satisfied the condition shall be set to MET in all existing VILLAGE REFINEMENT PLAN condition sets. The condition need not be added to additional VILLAGE REFINEMENT PLAN condition sets once it has been satisfied.

This condition cannot be DEFERRED or set to NOT APPLICABLE. This condition need only be added to the VILLAGES that contain the appropriate number of units to trigger the dwelling unit count. Once met, the condition need not be added to other VILLAGE condition sets.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 038
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PA12 PRI REC CONST

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 41st residential building permit within the SPECIFIC PLAN a private recreation facility shall be constructed and opened on part of PA 12 and the public parkland shall be constructed and opened on adjacent PA 6. The design shall substantially conform to the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Resort VILLAGE.

This condition is intended to require the private community recreation center for the first phase to open at the same time the models open, prior to occupancy of any residential unit intended for use as a dwelling. Given the size of the first phase, there could be many different models.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 039
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PA14 PRK PLN REQ

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 375th building permit within the SPECIFIC PLAN, detailed plans for six (6) acres of public parkland on part of Planning Area Fourteen (PA14) (a joint-use park) shall be approved by the Planning Department. The design shall substantially conform to the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Resort VILLAGE.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 040
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PA14 PRK CONST

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 751st building permit within the SPECIFIC PLAN, six (6) acres of public parkland shall be constructed and opened on part of Planning Area Fourteen (PA14) (a joint-use park).

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 041
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PA8 GB PLN REQ

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 1,375th building permit within the SPECIFIC PLAN, detailed plans for thirteen (13) acres of public parkland in Planning Area Eight (PA8) (active area of the Greenbelt) shall be approved by the Planning Department. The design shall substantially conform to the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Resort VILLAGE.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 042
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PA8 GB CONST

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 1,751st building permit within the SPECIFIC PLAN, thirteen (13) acres of public parkland shall be constructed and opened on Planning Area Eight (PA8) (active area of the Greenbelt).

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 043
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PARKLAND

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 2,751st building permit within the SPECIFIC PLAN at least twenty eight (28) acres total of parkland that received credit shall be constructed and opened. All designs shall substantially conform to the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Resort VILLAGE.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 044
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - OFST PRK PLN (1)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 3,145th building permit within the SPECIFIC PLAN detailed plans for the eighteen (18) acres of public parkland shall be approved by the Planning Department.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 045
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - OFST PRK CONST (1)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 3,251st building permit within the SPECIFIC PLAN 18 acres of public parkland shall be constructed and opened at the offsite park(s). The balance of parkland planned at the location(s) shall be dedicated to Riverside County (agency to be determined at time of dedication to the stasfaction of the Planning Director) in a raw land condition. Appropriate public maintenance providers shall be established with or prior to satisfaction of this condition.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 046
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PA39 PLN REQ (1)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 3,875th building permit within the SPECIFIC PLAN detailed plans for the sports park portion of the Central Park shall be approved by the Planning Department. All designs shall substantially conform to the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Park VILLAGE.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 047
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PA39 CONST (1)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING

MATRIX.

PRIOR TO THE ISSUANCE OF THE 4,251st building permit within the SPECIFIC PLAN the sports park portion of the Central Park shall be constructed and opened.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 048
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PA39 PLN REQ (2)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 5,375th building permit within the SPECIFIC PLAN detailed plans for the second half (non-sports) of Central Park shall be approved by the Planning Department. All designs shall substantially conform to the design criteria as specified in the VILLAGE REFINEMENT PLAN for the Park VILLAGE.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 049
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PA39 CONST (2)

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 5,751st building permit within the SPECIFIC PLAN the second half (non-sports) of Central Park shall be constructed and opened.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 050
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - PA39 ADD LAND DEDI

Status: **INEFFECT** **Conditions:** **Outstanding**

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 5,751st building permit within the SPECIFIC PLAN an additional 4 acres, or as approved by the Planning Director, shall be dedicated to the County for future expansion of the Community Facilities and /or park areas within Planning Area 39.

The intent of this condition is create a location for additional community facilities that may be possible through a future County program. In the event that the land

dedicated by this condition is not used for additional community facilities structures, it shall be used for additional park space and shall be creditied accordingly. Either way the land shall fully landscaped and irrigated at time of dedication. Satasfaction of this condtion shall be at the discrection of the Planning Director.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 051
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - OFST PRK PLN (2)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 7,875th building permit within the SPECIFIC PLAN detailed plans for eighteen (18) additional acres of offsite public parkland shall be submitted to and approved by the Planning Department.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 052
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - OFST PARK CONT (2)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 8,251st building permit within the SPECIFIC PLAN eighteen (18) additional acres of public parkland shall be constructed and opened at the offsite park(s). Appropriate public maintenance providers shall be established with or prior to satisfaction of this condition.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 053
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - OFST PRK PLN (3)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 9,625th building permit within the SPECIFIC PLAN detailed plans for eighteen (18) additional acres of offsite public parkland shall be submitted to and approved by the Planning Department. The actual amount of parkland required may be less depending on the final unit count for the SPECIFIC PLAN. Such action will be at the discretion of the Planning Director. Appropriate public maintenance providers shall be established prior to satisfaction of this condition.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 054
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - OFST PRK CONT (3)

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 10,000st building permit within the SPECIFIC PLAN 18 additional acres of public parkland shall be constructed and opened at the offsite park(s).

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 055
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - FINAL PARK COUNT

Status: INEFFECT **Conditions:** Outstanding

Whenever a condition of approval uses the term "building permit" to trigger an event or to cause another action to take place, the condition shall be interpreted to mean "Dwelling Units" as enumerated within the TOTAL DWELLING UNIT TRACKING MATRIX.

PRIOR TO THE ISSUANCE OF THE 11,150th building permit within the SPECIFIC PLAN 145.4 acres total of parkland shall be constructed and opened for The Villages of Lakeview. Parks may be on site or off-site.

To track total dwelling unit counts see condition "10.Planning.10 DU/BUILDING PERMIT MATRIX."

100.PLANNING 056
PRIOR TO ISSUE GIVEN BLDG PRMT

SP -AFFORDABLE CONSTRUCTION(1)

Status: INEFFECT **Conditions:** Outstanding

Prior to the issuance of the 3,000th building permit with the Specific Plan, the applicant shall acquire all necessary approvals for and construct at least two hundred fifty (250) affordable for-rent units in accordance with 10 Planning 23. All necessary approvals include, but are not limited to, Tentative Tract/Parcel Maps, Conditional Use Permits, Public Use Permits, Plot Plans and Temporary Use Permits (longer than 6 months).

100.PLANNING 057
PRIOR TO ISSUE GIVEN BLDG PRMT

SP -AFFORDABLE CONSTRUCTION(2)

Status: INEFFECT **Conditions:** Outstanding

Prior to the issuance of the 6,000th building permit with the Specific Plan, the applicant shall acquire all necessary approvals for and construct the remaining two hundred fifty (250) affordable for-rent units in accordance with 10 Planning 23. All necessary approvals include, but are not limited to, Tentative Tract/Parcel Maps,

Conditional Use Permits, Public Use Permits, Plot Plans and Temporary Use Permits (longer than 6 months).

100.PLANNING 058
PRIOR TO ISSUE GIVEN BLDG PRMT

SP - MODEL HOME ALT ENG GEN

Status: **INEFFECT**

Conditions: **Outstanding**

This condition only applies to model home complexes and may be set to 'not apply' for all other uses. Per a Specific Plan standard, all for sale residential projects shall offer an option to buyers for solar or an alternative renewable energy generating technology as part of the homebuilder's option program. To ensure this option is properly implemented, each single-family detached model home complex shall include at least one demonstration home featuring solar panels, photovoltaic cells, solar thermal systems or other renewable energy generating technology and a pricing schedule. The model home featuring the demonstration technology must be consistent with the Final Site of Development minor plot plan elevations which shall also show the demonstration system. Additionally, the home builder shall provide to the Planning Director or designee evidence of competitive bidding as well as the design selection of the renewable energy generating technology. A model home complex for purposes of this condition shall mean two or more model homes.

Conditions of Approval for Another Case

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CONDITIONS OF APPROVAL FOR BRS091088

Online Services

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80.B&S 999
PRIOR TO BLDG PRMT ISSUANCE

BP - SCHOOL FEES REQD

Status: MET
Conditions: Satisfied

Prior to the issuance of building permits, applicants are required to pay impact mitigation fees to the appropriate school district(s). Written evidence from the appropriate school district(s) to Building & Safety authorizing the issuance of building permits for this project is required.

80.B&S 999
PRIOR TO BLDG PRMT ISSUANCE

BP - GRADING CLEARANCE REQMNT

Status: MET
Conditions: Satisfied

Prior to the issuance of this permit, the applicant must obtain clearance from the Grading Division of the Department of Building & Safety. It may be necessary for the applicant to speak directly with a representative of the Grading Division to determine the specific requirements for their clearance.

80.E HEALTH 001
PRIOR TO BLDG PRMT ISSUANCE

USE - E.HEALTH CLEARANCE REQ.

Status: MET
Conditions: Satisfied

ENVIRONMENTAL HEALTH CLEARANCE IS REQUIRED PRIOR TO THE ISSUANCE OF THIS BUILDING PERMIT.

80.TRANS 999
PRIOR TO BLDG PRMT ISSUANCE

BP - TRANS DEPT CLEARANCE REQD

Status: MET
Conditions: Satisfied

Prior to the issuance of this permit, the applicant must obtain clearance from Riverside County Transportation Department Permits Section. It may be necessary to speak directly with a Transportation Department representative in order to determine the exact requirements for their clearance. The telephone number for the Transportation Permits Section for Cabazon and areas west is (951) 955-6790. The telephone number for the Transportation Permits Section for areas east of Cabazon is (760) 863-8267.

90.B&S 999
PRIOR TO BLDG FINAL INSPECTION

BP - GRADING CLEARANCE REQMNT

Status: INEFFECT
Conditions: Outstanding

Prior to the final inspection, the applicant must obtain clearance from the Grading Division of the Department of Building & Safety. It may be necessary to speak directly to a representative of the Grading Division to determine specific requirements for their clearance.

90.B&S 999
PRIOR TO BLDG FINAL INSPECTION

BP - DIF PRIOR TO FINAL

Status: INEFFECT **Conditions:** Outstanding

Prior to the final inspection, applicants are required to pay the fee required per the Developmemt Impact Fee Ordinance No. 659.

90.B&S 999
PRIOR TO BLDG FINAL INSPECTION

BP - DEV AGREE FEE AT FINAL

Status: NOTAPPLY **Conditions:** Satisfied

This application for a building permit lies within a recorded developer agreement area that requires the payment of a development mitigation fee prior to the final inspection (Developer Agreement 7 Amended #1)

90.B&S 999
PRIOR TO BLDG FINAL INSPECTION

BP - MSHCP FEE/ORDS 810 & 875

Status: INEFFECT **Conditions:** Outstanding

Prior to the final inspection, applicants are required to pay the Riverside County Multiple Species Habitat Conservation Plan fees required by either Ordinance 810, Western MSHCP or Ordinance 875, Coachella Valley MSHCP.

90.E HEALTH 001
PRIOR TO BLDG FINAL INSPECTION

USE- E.HEALTH CLEARANCE REQ

Status: MET **Conditions:** Satisfied

Environmental Health Clearance prior to final inspection.

90.E HEALTH 002
PRIOR TO BLDG FINAL INSPECTION

USE-FEE STATUS

Status: INEFFECT **Conditions:** Outstanding

Prior to final approval, the Environmental Health Department shall determine the status of the deposit based fees. If the fees are in a negative status, the permit holder shall pay any outstanding balances. Contact the accounting section at (951) 955-8982.

90.E HEALTH 003
PRIOR TO BLDG FINAL INSPECTION

EXISTING OWTS DEMO

Status: INEFFECT **Conditions:** Outstanding

PROPERLY DEMO EXISTING OWTS AND CALL FOR INSPECTION. (951)955-8980

90.TLMA 001
PRIOR TO BLDG FINAL INSPECTION

BP* - REMOVE EXISTING MOBILE

Status: INEFFECT **Conditions:** Outstanding

Prior to final inspection on this permit, the existing mobile home must be disconnected from utilities and removed from the property.

90.TRANS 999
PRIOR TO BLDG FINAL INSPECTION

BP - TRANS DEPT CLEARANCE REQD

Status: MET

Conditions: Satisfied

Prior to scheduling of the final inspection, the applicant must obtain clearance from Riverside County Transportation Department Permits Section. It may be necessary to speak directly with a Transportation Department representative in order to determine the exact requirements for their clearance. The telephone number for the Transportation Permits Section for Cabazon and areas west is (951) 955-6790. The telephone number for the Transportation Permits Section for areas east of Cabazon is (760) 863-8267.

90.TRANS 999
PRIOR TO BLDG FINAL INSPECTION

BP - TUMF ORD 824

Status: INEFFECT

Conditions: Outstanding

Prior to scheduling of the final inspection, the applicant is required to pay the fee required per the Transportation Uniform Mitigation Fee Program, Riverside County Ordinance 824.

Conditions of Approval for Another Case

Enter Case Number:

Submit Clear Form

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California Regional Water Quality Control Board
Santa Ana Region

RESOLUTION NO. 94-1

Resolution Adopting the Updated Water Quality Control Plan for the Santa Ana River Basin (8)

WHEREAS, the California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. The Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) was adopted by the Regional Board on April 11, 1975 and approved by the State Water Resources Control Board (State Board) on April 17, 1975.

2. An amended Basin Plan was adopted by the Regional Board on May 13, 1983 and approved by the State Board on October 20, 1983. Since that time, specific amendments to the Basin Plan have been adopted by the Regional Board and approved by the State Board. These amendments include the following: revisions of compliance dates for certain waste discharge prohibitions; revisions of the beneficial use designations, in part to conform the Basin Plan to the State Board's Sources of Drinking Water Policy; revision of the total inorganic nitrogen wasteload allocation for discharges to the Santa Ana River system; and the incorporation of minimum lot size requirements and exemption criteria for the use of septic tank-subsurface disposal systems in the Region.

3. Section 303(c) of the Federal Clean Water Act requires that water quality standards be reviewed and revised, if appropriate, on a triennial basis, and Section 13240 of the California Water Code provides that basin plans must be periodically reviewed and may be revised.

4. In 1989, the State Board initiated a statewide program for comprehensive review and update of the basin plans by all regional boards.

5. With extensive public participation and input, the Regional Board has prepared an updated Basin Plan. This Basin Plan update process satisfies federal triennial review requirements under Section 303(c) of the Clean Water Act and the periodic review requirements of the California Water Code under Section 13240.

6. The Regional Board discussed the basin plan update process at its meeting on April 23, 1993. A first draft of the revised Basin Plan was released in June, 1993 and a public workshop to review that draft was conducted on July 16, 1993. The Regional Board released a second draft of the Basin Plan and the relevant staff report in September, 1993 and conducted a public workshop on October 22, 1993. The public workshops were conducted after notice was given to all interested persons in accordance with Section 13244 of the California Water Code. The testimony introduced at those workshops was considered in the preparation of the final revised Basin Plan.

7. Significant additions to the revised Basin Plan include the addition of a new beneficial use designation of "Limited Warm Freshwater Aquatic Habitat" (LWRM) specifically for concrete-lined channels, the creation of wetlands as a waterbody type, designation of RARE beneficial use for a number of waterbodies, revised un-ionized ammonia objectives and corresponding total ammonia effluent limits, water quality objectives for the Big Bear groundwater basin, revised total dissolved solids wasteload allocation and a discussion of water quality and water resource managment projects in the region.

8. In accordance with applicable guidance and regulations, the Regional Board has developed site-specific water quality objectives (SSOs) for cadmium, copper and lead in the Middle Santa Ana River system. The Regional Board reviewed and discussed the issues related to the development and adoption of these SSOs in public meetings and workshops on August 7, 1992, March 5, 1993 and June 4, 1993. The testimony introduced at these workshops was considered in the preparation of final recommendations for SSOs.

9. In accordance with the provisions of California Water Code, Section 13280 *et seq.*, the Regional Board developed a proposed Basin Plan amendment to incorporate the SSOs.

10. At a duly noticed Public Hearing on October 22, 1993, the Regional Board adopted Resolution No. 93-64, adopting the proposed Basin Plan amendment to incorporate the SSOs for cadmium, copper and lead for the middle Santa Ana River system. A staff report regarding this matter was prepared and distributed to all interested parties 30 days prior to the hearing. However, between the time of the transmittal of the staff report and the October 22, 1993 hearing, new information was presented that led to the modification of the SSOs which had been recommended in the staff report. To avoid procedural questions, it is appropriate to rescind Resolution No. 93-64 and to reconsider adoption of the SSOs as part of the final revised Basin Plan. A report concerning the SSOs considered and adopted by the Regional Board on October 22, 1993 is included in the staff report pertaining to the adoption of the revised Basin Plan.

11. Regional Board Resolution No. 92-10, adopted February 14, 1992, found that some of the national water quality criteria, including those for cadmium, copper and lead, are inappropriate for the Middle Santa Ana River because the flows are dominated by reclaimed water, which provides and supports beneficial uses which would not otherwise exist.

12. A Use-Attainability Analysis (UAA) has been conducted for the Santa Ana River. The UAA provided data and analyses which allow the Regional Board to make the following findings regarding the Santa Ana River:
    a. The Site-Specific Water Quality Objectives (SSOs) for cadmium, copper and lead proposed by Regional Board staff will protect the beneficial uses of the Santa Ana River.
    b. The proposed SSOs have been shown to be conservative.

c. The proposed SSOs, which represent higher water quality than presently exists, will not result in degradation of water quality.
d. Existing levels of cadmium, copper and lead in the SAR do not contribute to toxicity in the Santa Ana River.
e. Dischargers to the Santa Ana River are either in compliance with their NPDES permits or are meeting approved compliance schedules.

13. Adoption and implementation of the cadmium, copper and lead SSOs is consistent with the maximum benefit to the people of California, particularly because it encourages water reclamation and will support important social and economic development in the Santa Ana Region.

14. The findings of this Resolution with respect to metals SSOs are specific to the Santa Ana River and to cadmium, copper and lead These findings are not meant to establish precedent or be applicable to other metals or other water bodies.

15. The Regional Board has prepared and distributed a written report (Staff Report) on adoption of the revised Basin Plan, including site-specific objectives for metals, in compliance with applicable state and federal environmental regulations (California Code of Regulations, Section 3775, Title 23 and 40 CFR Parts 25 and 131).

16. The process of basin planning is exempt from the requirements of the California Environmental Quality Act (Public Resources Code Section 21000 *et seq*) to prepare an Environmental Impact Report or Negative Declaration. The updated Basin Plan includes a completed Environmental Checklist, an assessment of the environmental impacts of the adoption of the updated Basin Plan and a discussion of alternatives. The updated Basin Plan, Environmental Checklist, staff report and supporting documentation are functionally equivalent to an Environmental Impact Report or Negative Declaration.

17. Review of potential environmental impacts of adoption and implementation of the reviewed Basin Plan indicated that a substantial increase in energy consumption might be required and that there may be no feasible alternatives or mitigation measures for this impact. However, the only alternatives identified which would not require increase in energy consumption would not ensure protection of the beneficial uses of the waters of the Santa Ana Region and would therefore not comply with state and federal laws. Pursuant to CEQA regulations Section 15093a, Findings of Overriding Considerations, as attached to the Checklist, are therefore appropriate. The benefits of the Basin Plan amendments outweigh the unavoidable adverse environmental effects.

18. The Regional Board has considered federal and state antidegradation policies, the state Sources of Drinking Water Policy and other relevant water quality control policies and finds the updated Basin Plan consistent with those policies.

19. On January 28, 1994, the Regional Board held a Public Hearing to consider the revised Basin Plan, including site-specific objectives for metals. Notice of the Public Hearing was given to all interested persons and published in accordance with Water Code Section 13244.

20. This Basin Plan must be submitted for review and approval by the State Board, the Office of Administrative Law (OAL) and the US Environmental Protection Agency. Once approved by the State Board, the Basin Plan is to be submitted to the Office of Administrative Law. A Notice of Decision will be filed after the State Board and the Office of Administrative Law have acted on this matter. The Basin Plan must then be submitted for review by the U.S. Environmental Protection Agency.

21. The revised Basin Plan will become effective upon approval by the State Water Resources Control Board and the Office of Administrative Law

NOW THEREFORE BE IT RESOLVED THAT:

1. The California Regional Water Quality Control Board, Santa Ana Region, adopts the updated Water Quality Control Plan for the Santa Ana River Basin (8) as set forth in the attached document.

2. The Regional Board hereby adopts the Findings of Overriding Considerations attached to the Environmental Checklist prepared for the updated Water Quality Control Plan.

3. Resolution No. 93-64 adopting site-specific objectives for metals for the middle Santa Ana River system is hereby rescinded.

4. The Regional Board will implement the Inland Surface Waters Plan and Enclosed Bays and Estuaries Plan (Plans), where applicable, as long as they remain in effect. If the Plans are invalidated, the Regional Board will continue to issue National Pollutant Discharge Elimination System permits in compliance with the Porter-Cologne Act and applicable State and federal regulations, including but not limited to, 40 CFR 122.44(d).

5. Within three years after consultation with the Department of Fish and Game on specific waterbodies that support threatened or endangered species, and where scientific evidence indicates that certain existing water quality objectives for these water bodies do not adequately protect such species, the Regional Board will determine whether these objectives are adequately protective. In cases where such existing objectives do not provide adequate protection for threatened and endangered species, the Regional Board will develop and adopt adequately protective site-specific objectives for those constituents.

6. The Executive Officer is directed to forward copies of the updated Water Quality Control Plan for the Santa Ana River Basin (8) to the State Water Resources Control Board in accordance with the requirements of Section 13245 of the California Water Code.

7. The Regional Board requests that the State Water Resources Control Board approve the Water Quality Control Plan in accordance with the requirements of Sections 13245 and 13246 of the California Water Code and forward it to the Office of Administrative Law and the US Environmental Protection Agency-Region IX for approval.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Santa Ana Region, on March 11, 1994.

Gerard J. Thibeault
Executive Officer

7. The Regional Board requests that the State Water Resources Control Board approve the Water Quality Control Plan in accordance with the requirements of Sections 13245 and 13246 of the California Water Code and forward it to the Office of Administrative Law and the US Environmental Protection Agency-Region IX for approval.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Santa Ana Region, on January 28, 1994.

for Gerard J. Thibeault
Executive Officer

WATER QUALITY CONTROL PLAN

SANTA ANA RIVER BASIN (8)

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CHAPTER 1

INTRODUCTION

THE WATER QUALITY CONTROL PLAN (BASIN PLAN) FOR THE SANTA ANA RIVER BASIN

The State Water Resources Control Board (SWRCB or State Board) and the nine Regional Water Quality Control Boards (RWQCBs or Regional Boards) are responsible for the protection and, where possible, the enhancement of the quality of California's waters. The SWRCB sets statewide policy, and together with the RWQCBs, implements state and federal laws and regulations. Each of the nine Regional Boards adopts a Water Quality Control Plan, or Basin Plan, which recognizes and reflects regional differences in existing water quality, the beneficial uses of the region's ground and surface waters, and local water quality conditions and problems.

This document is the Basin Plan for the Santa Ana Region. The Santa Ana Regions includes the upper and lower Santa Ana River watersheds, the San Jacinto River watershed, and several other small drainage areas. The Santa Ana Region covers parts of southwestern San Bernardino County, western Riverside County, and northwestern Orange County.

FUNCTION OF THE BASIN PLAN

The Basin Plan for the Santa Ana Region is more than just a collection of water quality goals and policies, descriptions of conditions, and discussions of solutions. It is also the basis for the Regional Board's regulatory programs. The Basin Plan establishes water quality standards for the ground and surface waters of the region. The term "water quality standards," as used in the federal Clean Water Act, includes both the beneficial uses of specific waterbodies and the levels of quality which must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the Regional Board and others that are necessary to achieve and maintain the water quality standards.

The Regional Board regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means.

Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For waterbodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included.

In some cases, it has been necessary for the Regional Board to completely prohibit the discharge of certain materials. Some types of discharges are prohibited in specific areas. Details on these prohibitions also appear in the Basin Plan.

LEGAL BASIS AND AUTHORITIES

The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

California Water Code

California's Porter-Cologne Water Quality Control Act (Section 13000 ["Water Quality"] ***et seq***., of the California Water Code), which established both the State Water Resources Control Board and the present system of nine Regional Water Quality Control Boards, directs in Chapter 4, Article 3, "Regional Water Quality Control Plans," that each Regional Board is to formulate and adopt water quality control plans for all areas within the region and is to periodically review and revise them as necessary. Each Regional Board is to set water quality objectives that will insure the reasonable protection of beneficial uses and the prevention of nuisance, with the understanding that water quality can be changed somewhat without unreasonably affecting beneficial uses.

The California Water Code also lists the specific factors which are to be considered in establishing water quality objectives. A detailed listing appears in Chapter 4 (p. 4-1).

Implementation plans are to include, but not limited to:

(1) a description of the nature of the actions necessary to achieve the objective, including recommendations for appropriate action by any entity, public or private;

(2) a time schedule for the actions to be taken; and

(3) a description of the surveillance to be undertaken to determine compliance with the objectives.

Clean Water Act

The objective of the federal Clean Water Act is to "***restore and maintain the chemical, physical and biological integrity of the Nation's waters,***" to make waters of the United States "fishable and swimmable." The Clean Water Act includes several sections which relate to Basin Plans and the basin planning process, including sections on Areawide Waste Treatment Management, Basin Planning, and Water Quality Standards and Implementation Plans.

The Clean Water Act requires that states adopt water quality standards, including standards for toxic substances. The states are also required to have a continuing planning process, which includes public hearings at least once every three years to review the water quality standards and revise them if necessary.

ENVIRONMENTAL SETTING

The Santa Ana Region is the smallest of the nine regions in the state (2800 square miles) and is located in southern California, roughly between Los Angeles and San Diego. Although small, the region's four million residents (1993 estimate) make it one of the most densely populated regions. People have come to southern California over the years for a wide variety of reasons. Once here, many decide to stay. Snow skiing areas in the mountains are as little as two hours from world-famous broad, sandy ocean beaches.

The climate of the Santa Ana Regions is classified as Mediterranean: generally dry in the summer with mild, wet winters. The average annual rainfall in the region is about fifteen inches, most of it occurring between November and March. Much of the area would be near-desert were it not for the influence of modern civilization.

Regional Boundaries and Geography

In very broad terms, the Santa Ana Region is a group of connected inland basins and open coastal basins drained by surface streams flowing generally southwestward to the Pacific Ocean (See Figure 1-1).

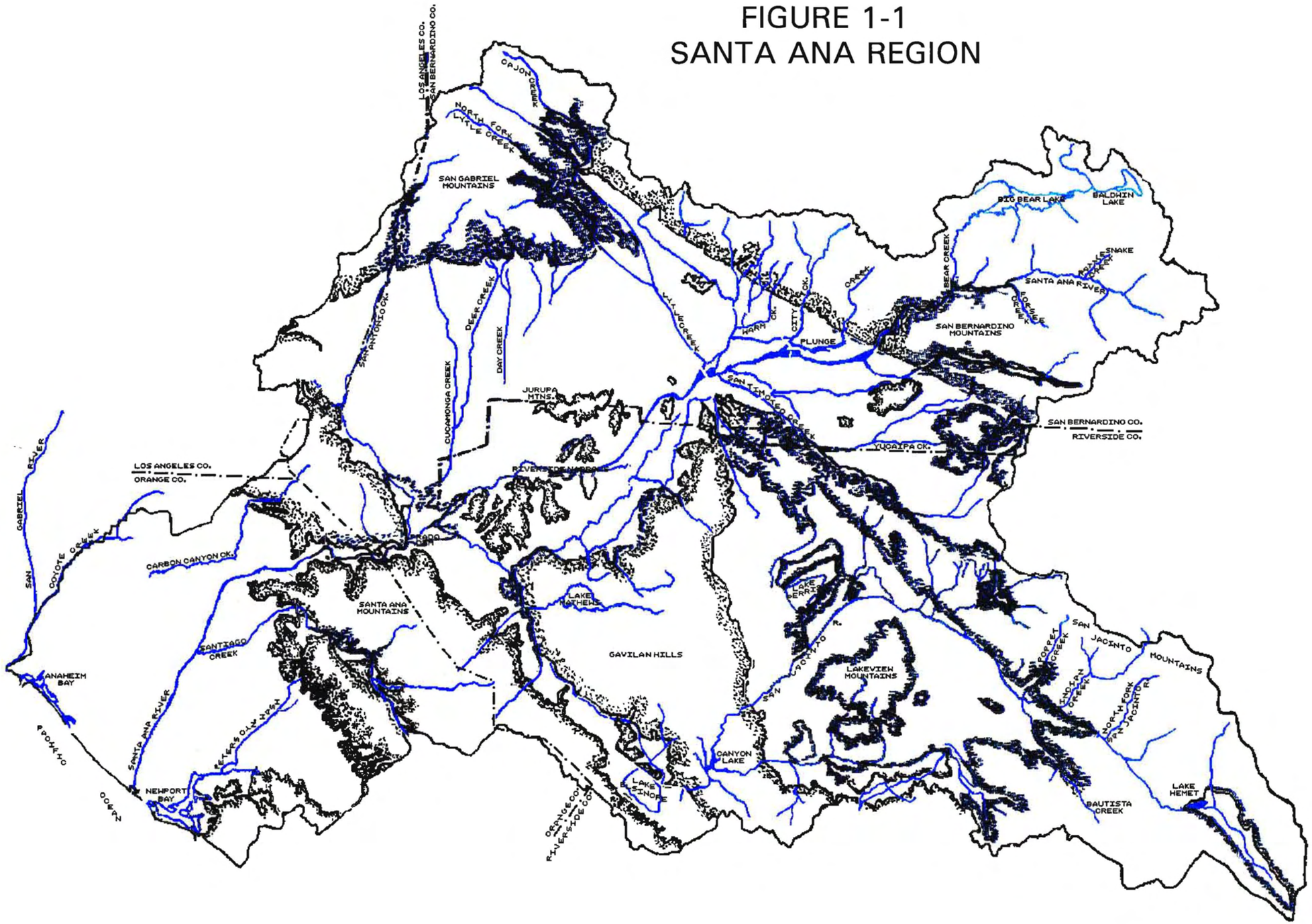
The boundaries between California's nine regions are usually hydrologic divides that separate watersheds, but the boundary between the Los Angeles and Santa Ana Regions is the Los Angeles County Line. Since that county line only approximates the hydrologic divide, part of the Pomona area drains into the Santa Ana Region, and in Orange County, part of the La Habra drains into the Los Angeles Region.

The east-west alignment of the crest of the San Gabriel and San Bernardino Mountains separates the Santa Ana River basin from the Mojave Desert, which is part of the Lahontan Basin (Region 6).

In the south, the regional boundary divides the Santa Margarita River drainage area from that of the San Jacinto River, which normally terminates in Lake Elsinore.

Near Corona, the Santa Ana River has cut through the Santa Ana Mountains and flows down onto the Orange County coastal plain. The Pacific Ocean coast of the Santa Ana Region extends from just north of Laguna Beach up to Seal Beach and the Los Angeles County line. Other features of the coast include Newport Bay, Anaheim Bay-Huntington Harbour, and the major coastal wetlands areas associated with those bays.

FIGURE 1-1
SANTA ANA REGION



REGION 8 INDEX

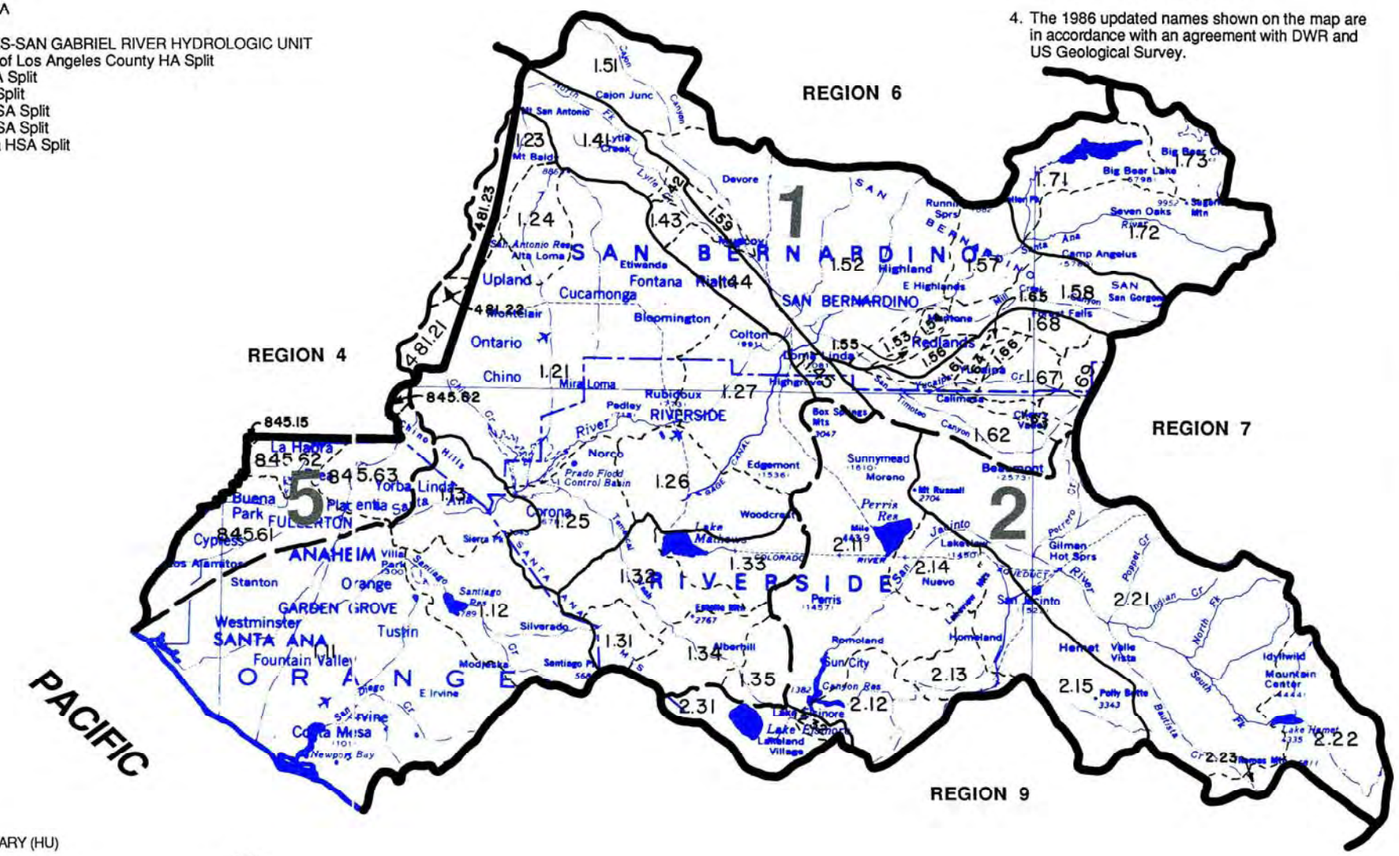
801.00	SANTA ANA RIVER HYDROLOGIC UNIT
801.10	Lower Santa Ana River HA
1.11	East Coastal Plain HSA
1.12	Santiago HSA
1.13	Santa Ana Narrows HSA
801.20	Middle Santa Ana River HA Split
801.21	Chino HSA Split
481.21	Chino HSA Split
481.22	Harrison HSA
801.23	Claremont Heights HSA Split
481.23	Claremont Heights HSA Split
801.24	Cucamonga HSA
1.25	Temescal HSA
1.26	Arlington HSA
1.27	Riverside HSA
801.30	Lake Matthews HA
1.31	Coldwater HSA
1.32	Bedford HSA
1.33	Cajalco HSA
1.34	Lee Lake HSA
1.35	Terra Cotta HSA
801.40	Colton-Rialto HA
1.41	Upper Lytle HSA
1.42	Lower Lytle HSA
1.43	Rialto HSA
1.44	Colton HSA
1.45	Reche HSA
801.50	Upper Santa Ana River HA
1.51	Cajon HSA
1.52	Bunker Hill HSA
1.53	Redlands HSA
1.54	Mentone HSA
1.55	Reservoir HSA
1.56	Crafton HSA
1.57	Santa Ana Canyon HSA
1.58	Mill Creek HSA
1.59	Sycamore HSA
801.60	San Timoteo HA
1.61	Yucaipa HSA
1.62	Beaumont HSA
1.63	Cherry Valley HSA
1.64	Chicken Hill HSA
1.65	Gateway HSA
1.66	Oak Glen HSA
1.67	South Mesa HSA
1.68	Triple Falls Creek HSA
1.69	Nobie Creek HSA
801.70	San Bernardino Mountain HA
1.71	Bear Valley HSA
1.72	Seven Oaks HSA
1.73	Baldwin HSA

802.00	SAN JACINTO VALLEY HYDROLOGIC UNIT
802.10	Perris HA
2.11	Perris Valley HSA
2.12	Menifee HSA
2.13	Winchester HSA
2.14	Lakeview HSA
2.15	Hemet HSA
802.20	San Jacinto HA
2.21	Gilman Hot Springs HSA
2.22	Hemet Lake HSA
2.23	Bautista HSA
802.30	Elsinore Valley HA
2.31	Elsinore HSA
2.32	Railroad HSA

805.00	LOS ANGELES-SAN GABRIEL RIVER HYDROLOGIC UNIT
805.10	Coastal Plain of Los Angeles County HA Split
845.15	Central HSA Split
845.60	Anaheim HA Split
845.61	Anaheim HSA Split
845.62	La Habra HSA Split
845.63	Yorba Linda HSA Split

NOTE:

1. The names and areas shown on this map are the same as used by the Department of Water Resources (DWR) in their Bulletin 130 Series except as explained below.
2. The numbering system used on this map is an adaptation of the numbering system used in the 130 Series.
3. The boundary between Region 8 and Region 4 follows the boundary between Los Angeles County and Orange or San Bernardino Counties, not the Hydrologic Boundary. The San Bernardino County line splits Hydrologic Unit 1 (Santa Ana River HU) so that Sub-Areas 481.21, 481.22, and 481.23 are legally in Region 4 but drain into Region 8. The Orange County line splits Hydrologic Unit 5 (Los Angeles-San Gabriel River HU) so that Sub-Areas 845.15, 845.61, 845.62 and 845.63 are legally in Region 8 but drain into Region 4. Therefore, a 5 digit number on the map indicates that a regional boundary divides a hydrologic unit, area or subarea. In these cases the second digit is the number of the region from which the hydrologic area has been separated by the regional boundary. All other digits are as described in the legend.
4. The 1986 updated names shown on the map are in accordance with an agreement with DWR and US Geological Survey.

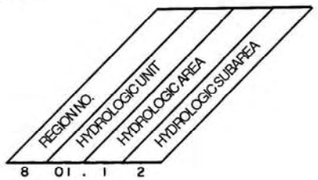


KEY TO REGION



LEGEND

- STREAM
- REGIONAL BOUNDARY
- HYDROLOGIC UNIT BOUNDARY (HU)
- HYDROLOGIC AREA BOUNDARY (HA)
- HYDROLOGIC SUBAREA BOUNDARY (SA)
- 5 HYDROLOGIC UNIT NUMBER



N

April 1973
Revised: July 1976
Revised: August 1986

State Water Resources Control Board
Surveillance and Monitoring Section
T.E. Lavenda, P.E. T E Lavenda

State of California
REGIONAL WATER QUALITY CONTROL BOARD

Santa Ana Region (8)

SANTA ANA HYDROLOGIC BASIN PLANNING AREA (SA)

Scale in miles
8 0 8 16 24 32
Scale 1:500,000

Geological Faults

Southern California is a geologically active area. Major earthquake faults in the region include the San Andreas Fault and its large branch, the San Jacinto Fault; the Elsinore-Whittier Fault; and the Newport-Inglewood Fault. The San Andreas Fault divides the San Gabriel Mountains from the San Bernardino Mountains. The San Jacinto Fault, which splits off from the San Andreas Fault near San Bernardino, affects groundwater flows associated both with the Santa Ana and San Jacinto Rivers. The Elsinore-Whittier Fault passes under Prado Dam as it trends, like the others, from the northwest toward the southeast. The Newport-Inglewood Fault enters the region from the Los Angeles basin and passes offshore at Newport Beach. In addition to these major faults, there are many branching, connecting, and parallel faults in the region.

HISTORY OF WATER DEVELOPMENT

Early Settlement

Following the Spanish Mission and Rancho Periods, early agriculture centered around horses and cattle. In the early 1800s, the increasing population required more farms and orchards to produce more food. The weather generally supported farming year-round, but the dry summers made irrigation a necessity. Once water supplies became dependable, vast areas of citrus orchard and vineyards also followed. Today, the region still has strong ties to agriculture, including a large dairy industry, but much of what remains is under increasing development pressure. The future probably involves an even larger human population and much less commercial agriculture.

Original Conditions

Before this area was settled, it is thought that the Santa Ana River flowed from its headwaters in the San Bernardino Mountains to the Pacific Ocean throughout most of the year. The San Jacinto River, also a substantial surface stream, typically would have ended at Lake Elsinore, which acted as an inland sink. Once out of the sycamore-filled mountain canyon, these rivers meandered along in sandy streambeds, shaded by willows, cottonwoods, and live oaks, flows decreasing where water percolated, filling the groundwater basins, increasing where local geological features forced the groundwater to the surface. High groundwater made springs, swampy areas, marshes and bogs common.

Deep alluvial valley deposits made up large groundwater basins, both in the inland valleys and on the coastal plain, basins naturally full of fresh water. Along with its nearby tributaries, the Santa Ana River fed the Bunker Hill groundwater basin, the Colton and Riverside basins, and to a lesser extent, part of the Chino Basin. Streams in the San Gabriel Mountains recharged the Chino Basin. The San Jacinto River recharged a deep (over two thousand feet) graben, the San Jacinto groundwater basin, as it left the mountains, then several other basins in succession on its way to Lake Elsinore. When especially heavy rainfalls or a series of wet winters filled Lake Elsinore, overflows went down Temescal Creek to the Santa Ana River near Corona. The Santa Ana River entered Santa Ana Canyon and passed through the coastal mountains out onto the Orange County Plain, overlying another large, deep groundwater basin largely recharged by river flows. With the diversion of most of this natural surface flow for agricultural and domestic uses, creeks and rivers dried up, carrying only storm flows and runoff. Eventually, treated wastewater replaced some of the flows in some streams.

Irrigation

The first irrigation diversions were made directly from the streams, often using crude brush and sand dams and hand-dug ditches to lead the water from the river to the fields. As more and more settlers arrived, the number of diversions increased. Eventually, all the surface flows were taken and groundwater recharge diminished sharply.

Ground water pumping became necessary to provide water for irrigation and for the growing settlements. Windmills were followed by motor-driven pumps, and as groundwater levels fell, deep well turbines became necessary. Artesian areas, such as those near San Bernardino and in Fountain Valley, stopped flowing naturally. The springs, swamps, and other historically wet areas began drying up.

The history of the San Jacinto River and its tributaries parallels that of the Santa Ana. The San Jacinto had historically kept all the groundwater basins in that part of the region full. Now, there is essentially no surface flow beyond the mouth of the canyon, where it exits the mountains; the riverbed is typically dry. Flood flows every five or ten years, however, produce a broad, shallow “Mystic Lake” in the riverbed near the town of Lakeview.

Further downstream, the river is dammed to form Canyon Lake, just upstream from Lake Elsinore. As noted earlier, Lake Elsinore is normally a sink, with no outflow. High annual evaporation rates have historically limited the amount of water in the lake, which has gone dry several times in this century. Only torrential rains or extended wet cycles have produced the rare overflows down Temescal Creek to the Santa Ana River. Several projects to stabilize the level of Lake Elsinore are now being completed.

When local water supplies inevitably ran short, the area’s economy, based on agriculture, was strong enough to help support the construction of large imported water projects. The Metropolitan Water District of Southern California (locally MWD-

SC or “Met”) built and still operates the Colorado River Aqueduct, which has imported millions of acre-feet of water from the Colorado River across the Mojave Desert and into the region. A second, newer system, the California Water Project, pumps comparable volumes of water out of the Sacramento-San Joaquin Delta for delivery to the Santa Ana Region and other parts of Southern California.

Santa Ana River Stipulated Judgement

Despite the availability of imported water, legal arguments focused on locally available (generally cheaper) water supplies. Overuse of the upstream water by extensive recycling had reduced summer flows in the Santa Ana River to a trickle, and even that trickle was somewhat salty. The largest of these legal arguments pitted Orange County (the downstream users) against all of the upstream users in Riverside and San Bernardino Counties. When the case was settled through an engineered solution the four largest water districts - San Bernardino Valley Municipal Water District (MWD), Chino Basin MWD, Western MWD, and Orange County WD agreed to implement the court’s solution through a Santa Ana River Watermaster.

Minimum average annual flows and guaranteed quality (total dissolved solids, or TDS) from the San Bernardino area to and through the Riverside Narrows were required, as well as flows from the upper basin to the lower basin (Orange County), measured at Prado Dam. The water required to meet the Stipulated Judgement can be made up of wastewater, imported water, dry weather runoff or some combination of these, with TDS the measure of minimum acceptable quality.

Together, the four large water agencies affected by the judgement formed SAWPA, the Santa Ana Watershed Planning (later “Project”) Authority, a forum for discussion of water issues as well as a joint powers agency that can build projects of common interest to two or more members.

BASIN PLANNING

History

In the 1950s and ‘60s, the Regional Boards were not actively involved in water quality planning. Water quality problems typically resulted in controls on waste discharges, usually including effluent limits for TDS and perhaps a few other parameters. Beyond that, the only serious restrictions prohibited the creation of a pollution or nuisance. By 1970, however, the Regional Boards were actively involved in the formulation of plans to meet established water quality objectives. The federal Clean Water Act and the Porter-Cologne Act, which required basin-wide planning, plus the National Pollution Discharge Elimination System (NPDES), which empowers the states to set discharge standard, placed new tools in the hands of the Regional Boards and encouraged the development of new approaches to water quality management. With the development of the “1967 Standards,” applicable to interstate waters, came Water Quality Control

Policies for the San Gabriel Tidal Prism, for the Coastal Bays, Marinas and Sloughs, and for Pacific Ocean Coastal Waters.

In the Santa Ana Region, the 1971 Interim Water Quality Control Plan incorporated the 1967 Standards and set water quality objectives for the Santa Ana River at Prado Dam. After the State Board developed the Ocean Plan and the Thermal Plan, the revised Interim Water Quality Control Plan incorporated that information.

Also in the early 1970s, the Santa Ana Regional Water Quality Control Board (Regional Board) was investigating the salt balance situation in the upper basin. An early computer model, primitive and slow by modern standards but providing answers of a kind never available before, had been used to assess the situation. SAWPA was contracted to write the first (1975) essentially complete Basin Plan (Water Quality Control Plan) for the Regional Board, using an improved version of that model.

The 1975 Basin Plan outlined a specific water quality management scheme designed to improve groundwater quality in the upper basin. Unfortunately, the kinds of large-scale actions necessary to maintain the quality of the region's ground and surface waters – basin management facilities, changes in water supply, regional wastewater treatment – were well beyond the regulatory powers of the Regional Board.

One of the region's major problems at that time was salt balance. Salt (TDS) buildup in the water results from excessive reuse of a given volume of water. Each cycle of use, whether in the home, in industry or use by irrigated agriculture, adds salts directly or indirectly, either through partial evaporation (or evapotranspiration) or direct addition of soluble materials. Typically, each use of water adds 200-300 parts per million (ppm) or milligrams per liter (mg/L) of TDS. TDS begins to interfere with the use of water somewhere between 500 and 1000 mg/L TDS; at 2000 mg/L, water is brackish and generally unusable. In order to allow for subsequent use downstream and to keep ground and surface water bodies usable, careful management of water reuse was necessary. Unlimited recycling created water quality problems. "Pumpback" schemes were strongly discouraged.

Part of the 1975 Basin Plan's solution to the salt balance problem, which seemed most acute in the Chino groundwater basin, was to import and recharge large volumes of low-TDS State Water Project (SWP) water. A second feature of the implementation plan was a large wellfield to extract poor quality water from the lower part of the basin. The third component was a pipeline to the sea to export brines from the upper basin. As years have passed, the list of projects has changed, with desalters replacing groundwater flushing projects. Most of the brine line (the Santa Ana River Interceptor or SARI Line) has been built and one groundwater desalter (Arlington) is now in place. Plans for two more desalters (East and West Chino Basin) in this area are still in design; at least one more is proposed in the San Jacinto watershed.

The Santa Ana Regional Water Quality Control Board and SAWPA (now also including Eastern MWD as a member) have continued to work together toward a common goal

– a well-operated basin that meets reasonable standards in an economical manner and provides high-quality water supplies when and where they're needed.

THE SANTA ANA RIVER

Reaches

The mainstem of the Santa Ana River is divided into six reaches (Figure 1-2). Each reach is generally a hydrologic and water quality unit.

Reach 6 includes the river upstream of Seven Oaks Dam, now under construction. Flows consist largely of snowmelt and storm runoff. Water quality tends to be very high.

Reach 5 extends from Seven Oaks Dam to San Bernardino, to the San Jacinto Fault (Bunker Hill Dike), which marks the downstream edge of the Bunker Hill groundwater basin. Most of this reach tends to be dry, except as a result of storm flows, and the channel is largely operated as a flood control facility. The extreme lower end of this reach includes rising water and intermittently, San Timoteo Creek flows.

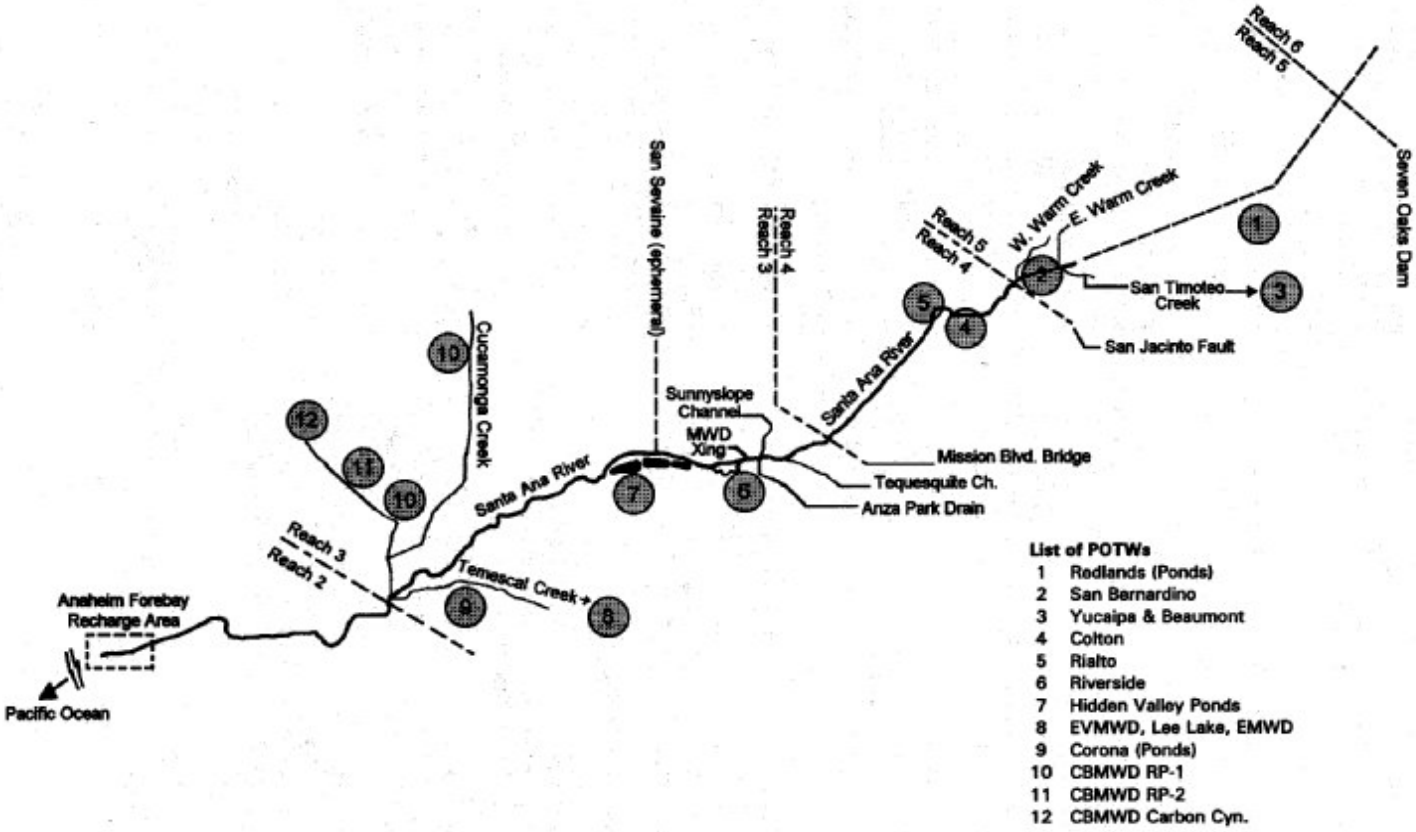
Reach 4 includes the river from the Bunker Hill Dike down to Mission Boulevard Bridge in Riverside. That bridge marks the upstream limit of rising water induced by the flow constriction in the Riverside Narrows. Until about 1985, rising water from upstream and wastewater discharges percolated and the lower part of the reach was dry. Flows are now perennial, but may not remain so as new projects are built. Much of this reach is also operated as a flood control facility.

Reach 3 includes the river from Mission Bridge to Prado Dam. In the Narrows, rising water feeds several small tributaries (Sunnyslope Channel, Tequesquite Arroyo, and Anza Park Drain) which are important breeding and nursery areas for the native fish. Temescal, Chino, and Mill/Cucamonga Creeks in Prado Basin are also important river tributaries.

Reach 2 carries all the upstream flows down through Santa Ana Canyon to Orange County where as much of the water as possible is recharged into the Orange County groundwater basin. The downstream end of the forebay/recharge area and, therefore, the ordinary limit of surface flows, is at 17th Street in Santa Ana.

Reach 1 is a normally dry flood control facility, presently being expanded and improved even further as a part of the US Army Corps of Engineers' Santa Ana River Project. This reach extends from 17th Street to the tidal prism at the ocean.

FIGURE 1-2
SANTA ANA RIVER AND TRIBUTARIES



Flows and Water Quality

When the Santa Ana River Stipulated Judgement was finalized in 1969, surface diversions and groundwater pumping had eliminated most of the dry weather surface flows in the river system between the mountains and Prado Dam. As the inland cities grew, wastewater flows increased. Between 1970 and 1990, the total volume rose from less than 50,000 to over 130,000 acre-feet per year. The river is effluent-dominated, a rare circumstance outside the Southwest. Nevertheless, water quality in the river has improved steadily, due largely to the efforts of the dischargers action in response to the requirements of the Regional Board.

In the 1970s, secondary treatment with disinfection was required in order to protect the health of the people who used it for contact recreation. These treatment requirements were further upgraded to include virus control: in-line coagulation and filtration and improved disinfection (or their equivalents) were then required. In the late 1980s, control of inorganic nitrogen levels was required to protect the aquatic habitat from un-ionized ammonia toxicity and to manage nitrate levels in groundwater for subsequent municipal uses. Further controls on residual chlorine levels were also added.

By 1991, when SAWPA's Use-Attainability Analysis of the middle Santa Ana River was conducted; full compliance with all these requirements had not yet been achieved. The river was posted to warn against water contact recreation, because certain upstream dischargers had not achieved compliance with virus control requirements. Compliance is expected by the end of 1995. Other identifiable water quality problems in the river were restricted to parts of Reach 4 where ammonia and chlorine controls were not yet in place. No water quality impairment due to toxics was seen in other parts of the system. In those other areas, the kinds and numbers of aquatic organisms at any given location tend to be dictated by habitat conditions.

Aquatic Environment in the Santa Ana River

Because flows are limited or generally absent in several parts of the Santa Ana River, there is no sustained aquatic habitat in those areas. Even where there are perennial flows, the habitat is frequently harsh – warm, shallow water, shifting sand substrate, little or no instream cover, and no riparian vegetation or tree canopy for shade.

There are no dependable flows from the mouth of the canyon, where the river leaves the mountains, for some distance downstream. In the canyon itself, the Corps of Engineers is presently building the Seven Oaks Dam, a large flood control structure. Groundwater recharge basins immediately downstream percolate flows from the river and its nearby tributaries. The river channel is operated as a typically dry flood control facility.

In the San Bernardino area, the San Jacinto Fault (Bunker Hill Dike) forces groundwater to the surface. At present (1993), perennial flows in the middle Santa Ana River begin at the confluence with East Warm Creek, a short distance upstream. The rising water area associated with the fault, now relatively small, was historically a

much larger, swampy area with many large springs. San Timoteo Creek, which the Corps of Engineers plans to line with concrete in the near future, joins the river in this area, its flows predominantly reclaimed wastewater from Yucaipa and other upstream dischargers.

East Warm Creek (near San Bernardino) carries small amounts of water from various non-point sources as well as some rising water. The San Bernardino Publicly-Owned Treatment Works (POTW) currently discharges to this creek just upstream of where it joins the river, but the city plans to move its point of discharge downstream in the near future. The river passes under several major highways and railroads in this area, and parts of the river bottom are lined with concrete. West Warm Creek, fully improved by the Corps for flood control but usually dry, also joins the river in this area.

The Santa Ana River Use-Attainability Analysis (1991) found areas of relatively high habitat value downstream of La Cadena Avenue in Colton, but these areas were largely washed out during the wet 1992-93 winter. Aquatic biota in the stream in this part of Reach 4 were limited, however, because certain POTWs had not yet installed full tertiary treatment and because physical conditions downstream – high temperatures, lack of cover or shelter – strongly discouraged upstream or downstream migration. Recent flood control maintenance practices have included removal of all vegetation and straightening of the river channel, severely reducing the value of the habitat. Surface flows presently continue on down through Reach 4, though conditions are likely to change when San Bernardino and Colton effluents are diverted to the RIX (rapid infiltration and extraction) project further downstream. The City of Rialto may also change its point of discharge to the river.

Near the Mission Boulevard Bridge and the upstream limit of Reach 3, rising water marks the Riverside Narrows area. Groundwater rises in the river channel and to either side as well. This water supports several small tributaries: Sunnyslope Channel, mostly improved for flood control; Tequesquite Arroyo Creek, which also drains Sycamore Canyon; and Anza Park Drain. In addition, the overflow from Lake Evans makes up a perennial tributary to the river in this area. These small streams form the present center of population of the Santa Ana Sucker, one of two remaining native species (in the Santa Ana River).

The City of Riverside's POTW on the south side of the river discharges in the Narrows, diverting all or part of its flows through the Hidden Valley Wildlife Area. Jurupa's Indian Hills POTW on the north side is permitted to discharge under certain conditions as well, but typically reclaims all its flow for golf course landscape irrigation.

From the Riverside Narrows area downstream to Prado Basin, the river is generally natural and unmodified. Even here, however, the water is warm because the mainstem is generally shallow and has a limited canopy. The substrate is dominated by shifting sand, limiting the bottom habitat and available opportunities for attached algae and insects, with only occasional gravel bars and riffles. The Santa Ana River Use-Attainability Analysis demonstrated that these habitat limitations dictate the kinds of numbers of aquatic organisms found here.

The Prado Flood Control Basin is a largely undisturbed, dense riparian wetland. In this area, flows in tributaries from both north and south of the river are again augmented by rising water. Temescal Creek comes in from the south, also carrying Arlington Channel flows and the occasional overflows from Lake Elsinore mentioned previously. A short distance from the river, near the edge of Prado Flood Control Basin, a section of Temescal Creek is the breeding center of the local Arroyo Chub population, the second native fish species still present in the middle river system. All the other species of fish found in the Middle Santa Ana River, including mosquitofish, bass, carp, catfish, etc., are exotics, escaped or introduced species.

All of the creeks draining Chino Basin come into the river on the north side, but the total dry-weather surface flow is negligible. Reclaimed wastewater from Chino Basin MWD's Regional Plant 1 is discharged to Cucamonga Channel, concrete-lined, offers extremely limited aquatic habitat – some attached algae, a few worms and insects, but not resident finfish. The improved channel ends near Prado Basin, and the stream changes names to Mill Creek. Chino Basin MWD's Regional Plant 2 discharges to Chino Creek near Prado Basin, some distance downstream of the discharge from the relatively new Carbon Canyon Plant. The lowest segments of Chino and Mill Creeks, down in Prado Basin, are quite different from most other streams in the watershed, with their muddy bottoms and deeper, slow-flowing water.

Most of the rising Chino Basin groundwater in the Prado area is high in TDS, nitrate, and other constituents, largely reflecting heavy present and historic agricultural water use in the area. Much of the initial water development went to citrus irrigation. That was supplanted first by large-scale vineyards and then by dairies, which are now slowly yielding to urban development.

Temescal Creek also carries reclaimed wastewater from the Lake Elsinore area, but most of that water percolates fairly quickly. Eastern MWD may discharge reclaimed wastewater to Temescal Creek in the future.

Below Prado Dam, the aquatic habitat is again different. The channel is deep in many places, with some rocky substrate and rapid sections. It supports a variety of organisms. In contrast, other stretches are improved for flood control. The river slows as it reaches Anaheim, where Orange County Water District diverts and recharges essentially all the dry weather flows. Downstream from the groundwater recharge areas near Anaheim, the Santa Ana River is normally dry.

WATER SUPPLY AND WASTEWATER RECLAMATION

The most serious water-related problem in the Santa Ana River Basin at this time is water supply. This region now uses approximately twice as much water as is available from local sources. As a result, the quantity of water imported into this region each year now equals or exceeds the amount of ground and surface water utilized.

As noted earlier, the Colorado River Aqueduct delivers water to Lake Matthews, but the relatively high mineral content of this water limits its reuse in this area. The State Water Project likewise imports water from the Sacramento-San Joaquin Delta, water with lower levels of dissolved minerals. State Water Project water can be used and reused again.

FLOOD CONTROL

Most of the annual rainfall in the Santa Ana Region occurs in the winter, as noted earlier. Further, most of it can come in a day or two, resulting in major floods and widespread damage. The last of these was shortly before World War II – much of coastal Orange County was inundated, stimulating the construction of Prado Dam by the US Army Corps of Engineers (Corps). The subsequent further urbanization of Orange County has been accompanied by channelizing essentially all the surface steams in the area.

The Corps is presently increasing the capacity of the main river channel through Orange County, and has begun construction of Seven Oak Dam in the San Bernardino Mountains, upstream of the mouth of Santa Ana River Canyon. Another of the Corps' current projects involves increasing the height of the Prado dam.

Flood control channels are typically designed to move large volumes of water from one place to another rapidly, without property damage. A fully improved channel is usually concrete, severely limiting the aquatic habitat beneficial uses. Partially improved channels may only have levees on either side, but other flood control activities (such as channel straightening, vegetation clearing, and weed control using copper or other toxic materials) can reduce or eliminate the aquatic habitat. Storm flows themselves, not necessarily part of flood events, can and do eliminate streamside habitat in parts of the river through sheer scouring force every few years.

ADOPTION OF THE BASIN PLAN – AMENDMENTS TO THE BASIN PLAN

As noted earlier, the California Water Code established the original requirements for the Basin Plan. After the necessary workshops and public hearings, the Regional Board formally adopts the Plan and forwards it to the State Board for their review and approval.

Pursuant to the California Fish and Game Code, Section 2090, Article 4, the Regional Board is required to consult with the Department of Fish and Game with respect to addressing the potential impacts (a) Basin Plan provision(s) may have on rare, threatened or endangered species within the Region. A Basin Plan or amendment is not considered final until that consultation has occurred.

After the State Board approval, the Office of Administrative Law (OAL) must review and approve any new regulatory provisions in the plan to assure that six specific standards are met: necessity (need for the regulation), authority (legislative or legal),

clarity (easily understood), consistency (with other regulations), reference (Water Code or other citation), and non-duplication (of existing regulations).

The plan is also transmitted to EPA for review and approval of those parts of the plan that establish or modify water quality standards as defined in the Clean Water Act (CWA).

CONTENTS OF THE BASIN PLAN

Chapter 2 (Plans and Policies) describes some of the many statewide regulatory and guidance documents which apply to the shape and the Regional Board's activities.

Chapter 3 (Beneficial Uses) discusses the many beneficial uses of the various waters of the Santa Ana Region. Ground and surface waterbodies are identified and tabulated, showing the beneficial uses of each.

Chapter 4 (Water Quality Objectives) also tabulates the region's waterbodies, and lists the water quality objectives (levels of various water quality parameters which must be met) necessary to protect those beneficial uses.

Chapter 5 (Implementation) details the Regional Board's water quality regulations and protection programs, lists the region's significant water quality problems and conditions, and describes approaches and solutions to them.

Chapter 6 (Monitoring and Assessment) contains listings and discussions of the monitoring programs, agencies involved, sampling locations and parameters tested, as well as the programs which collect, manage and maintain the data bases. California's statewide Water Quality Assessment is also described and referenced.

Chapter 7 (Water Resources and Water Quality Management) covers topics of regional importance not addressed in the other chapters.

REFERENCES

California Water Code, Section 13000, "Water Quality" ***et seq.***

Clean Water Act, PL 92-500, as amended

Annual Reports of the Santa Ana River Watermaster (Orange County Water District vs. City of Chino, ***et al.***) Case No. 117628 – County of Orange

Santa Ana Watershed Project Authority, Reports of the Santa Ana River Use-Attainability Analysis, 1991-3

CHAPTER 2

PLANS AND POLICIES

INTRODUCTION

In addition to the Santa Ana Region Basin Plan, a number of water quality control plans and policies adopted by the State Water Resources Control Board direct the Regional Board's actions. The State Board Plans and Policies which apply in this region are briefly described below. Copies of the plans and policies are attached in Appendix I.

These plans and policies may be reviewed periodically and may be revised. The Regional Board should be contacted to determine if a particular plan or policy is still current.

SATE BOARD PLANS

Thermal Plan (Resolution No. 75-89)

This plan, formally known as the "Water Quality Control Plan for Control for Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California," was developed and adopted in order to minimize the effects of wastes and wastewaters on the temperature of the receiving waters. This plan specifies water quality objectives, effluent quality limits, and discharge prohibitions related to thermal characteristics of interstate waters, enclosed bays estuaries, and waste discharges.

Ocean Plan (Resolution No. 90-27)

The "Water Quality Control Plan for Ocean Waters of California," amended in 1990, establishes beneficial uses and water quality objectives for waters of the Pacific Ocean along the California coast outside of enclosed bays, estuaries, and coastal lagoons. The Ocean Plan prescribes effluent quality requirements and management principles for waste discharge prohibitions.

The Ocean Plan identifies specific objectives for bacteriological, physical, chemical, and biological characteristics and radioactivity. These objectives are implemented by issuance of waste discharge requirements which include effluent limitations on major wastewater constituents and receiving water limitations for toxic materials. In addition, the Ocean Plan prohibits discharges of specific hazardous substances and waste sludge, bypassing of untreated waste, and impacts to Areas of Special Biological Significance.

Nonpoint Source Management Plan (Resolution No. 88-123)

In 1988, the State Board adopted the Nonpoint Source Management Plan which established the framework for statewide nonpoint source activities. Six statewide objectives and implementation strategies to manage nonpoint source problems are included in the plan. Chapter 5 provides more detailed information regarding the management plan.

Point sources were the principal focus of water quality control in the 1970s and 1980s. Nonpoint sources are now receiving a larger proportion of planning and regulatory attention.

STATE BOARD POLICIES

Policy with Respect to Maintaining High Quality Waters in California (Resolution No. 68-16)

The regulations implementing the Clean Water Act (40 CFR 131.6; 131.12(a)) require that each state develop and adopt a statewide antidegradation policy. In California, this requirement is satisfied by SWRCB Resolution No. 68-16, the "Statement of Policy with Respect to Maintaining High Quality Waters of California." The SWRCB policy requires the continued maintenance of existing high quality waters unless there is a demonstration that: (1) allowing some degradation is consistent with the maximum benefit to the people of the state; and (2) that such degradation would not unreasonably affect existing or potential beneficial use.

Actions which may adversely affect surface water quality must satisfy both Resolution No. 68-16 and the federal antidegradation policy (40 CFR 131.12). The requirements of the two policies are similar: the federal policy requires that existing instream uses and the level of water quality necessary to protect them must be maintained and protected. In addition, a reduction in water quality can be allowed only if there is a demonstration that such a reduction is necessary to accommodate important economic or social development.

Policy for Water Quality Control (by motion July 6, 1972)

This policy declares the State Board's intent to protect water quality through the implementation of water resources management programs and serves as the general basis for the adoption of subsequent water quality control policies.

Policy for Enclosed Bays and Estuaries (Resolution No. 74-43)

The Bays and Estuaries Policy recognizes the high environmental and ecological values of the bays and estuaries in the state. Specific direction is given regarding the San Francisco Bay-Delta system. New discharges to other bay and estuarine waters

are prohibited unless enhancement of those waters can be demonstrated. It is also the state's stated policy to phase out or in other ways eliminate existing discharges to bays and estuaries unless such enhancement can de demonstrated.

Policy on the Use and Disposal of Inland Waters Used for Powerplant Cooling (Resolution No. 75-58)

This policy provides consistent principles and guidance for supplementary waste discharge requirements or other water control actions for thermal powerplants using inland waters for cooling. The policy specifies that fresh inland waters should be used for cooling only when other alternatives are environmentally undesirable or economically unsound.

Policy and Action Plan for Water Reclamation (Resolution No. 77-1)

The Reclamation policy recognizes the present and future need for increased amounts of water in California primarily to support growth. This policy commits both the State Board and Regional Boards to support reclamation in general and reclamation projects which are consistent with sound principles and demonstrated needs.

Policy on the Disposal of Shredder Waste (Resolution No. 87-22)

This policy permits the disposal of shredded waste produced by the mechanical destruction of car bodies, old appliances, and similar castoffs, into certain landfills under specific conditions designated and enforced by the Regional Boards.

Supplementary to the state policy, the Santa Ana Regional Board Shredder Waste Policy (Resolution 87-108) designates specific solid waste facilities in the region which are authorized to accept shredder waste. Prior to accepting shredder waste at a facility, a Report of Waste Discharge (ROWD) is required to be submitted to the Regional Board.

Sources of Drinking Water Policy (Resolution No. 88-63)

The sources of Drinking Water Policy (Policy) declares that with specified expectations, all waters of the state are to be considers suitable, or potentially suitable, for municipal or domestic supply and should be so designated (**MUN**) by the Regional Boards. Those waters excepted under the Policy include the following: surface and ground waters that are contaminated, either by natural processes or by human activity, to the extent that they cannot reasonably be treated for domestic use; and surface waters in systems designated or modified to carry municipal/industrial/agricultural wastewaters or stormwater runoff. Other exceptions are specified in the Policy.

Adoption of the Policy required that Regional Boards review the beneficial uses of their ground and surface waters and determine where **MUN** designations should be added

and which water bodies should be excepted. Periodic reviews and updates of Regional Basin Plans must conform to this policy.

STATE BOARD PLANNING ACTIVITES FOR THE BAY/DELTA

The SWRCB is engaged in a comprehensive, multiphase program to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. While the Santa Ana Regional Board will not be directly involved in implementing the management plans which result from this program, the SWRCBs actions are likely to affect both water quality and quantity in the Regional Board's water quality control programs.

The Bay/Delta water system is a major source of supply to the State, providing more than half of all water used in California. The Bay/Delta is also of extreme ecological significance: it is one of the largest systems for fish and waterfowl habitat and production in the United States.

Two major water distribution systems divert water from the Delta: the Central Valley Project, operated by the United States Bureau of Reclamation; and the State Water Project (SWP), operated by the California Department of Water Resources. The SWP is an important source of high quality, supplemental water supplies for the Santa Ana Region (see Chapter 5 - Salt Balance and Assimilative Capacity). Numerous other water diversion and management efforts influence the inflows into, flows through, and outflows from the Bay/Delta estuary.

In 1978, the SWRCB adopted the "Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh" (the Delta Plan) and Water Rights Decision 1485 (D-1485). The Delta Plan established water quality objectives for salinity and outflow standards and operational constraints necessary to meet the objectives and assure reasonable protection of beneficial uses. These outflow standards and operational constraints are implemented through D-1485.

The Delta Plan proceedings were limited to the current and near term conditions in the Delta. The SWRCB committed to subsequent review of the Delta Plan and is not in that process.

The current Bay/Delta review program has a number of components, including the development and adoption by the SWRCB of the "Water Quality Control Plan for Salinity – San Francisco Bay/Sacramento-San Joaquin Delta Estuary" (Salinity Plan, 19-15 WR, May 1991). This Plan is primarily concerned with salinity and temperature factors. Numerous water quality objectives were established for: salinity at municipal and industrial intakes; salinity levels to protect Delta agriculture; salinity levels to protect export agriculture; and salinity for fish and wildlife resources in the Estuary. Water quality objectives were also established to provide expansion of the period of protection for striped bass spawning, and to address temperature and dissolved oxygen levels for fisheries in the Delta.

This Salinity Plan set the stage for the ongoing Water Rights phase of the proceedings. Determining the flow requirements necessary to meet the Plan objectives and the allocation of responsibility for meeting those objectives will lead to a revised Water Rights Decision.

A draft decision (D-1630) was released in 1992 and revised in 1993. D-1630 called for substantial limits on exports of waters from the Bay/Delta system, including exports to the SWP, during spring. The quality of Bay/Delta waters is generally best during this time of high flows. Limiting exports to other times of the year is likely to mean that poorer quality water will be supplied to users outside the Bay/Delta system, including the Santa Ana Region. High quality SWP water is essential to address the severe mineralization problem in this Region (see Chapter 5).

The SWRCB has determined that it will not adopt an interim water rights decision (D-1630), in part because the above-average rainfall during 1993 eliminated the urgent need to do so to protect fish and wildlife resources. The SWRCB has resumed its proceedings to establish a long-term water right decision to replace D-1485.

CHAPTER 3
BENEFICIAL USES

INTRODUCTION

Basically, a beneficial use is one of the various ways that water can be used for the benefit of people and/or wildlife. Examples include drinking, swimming, industrial and agricultural water supply, and the support of fresh and saline aquatic habitats.

Section 303 of the federal Clean Water Act (33 USC §1313) defines water quality standards as consisting of both the uses of the surface (navigable) waters involved and the water quality criteria which are applied to protect those uses. Under the Porter-Cologne Water Quality Control Act (California Water Code, Division 7, Chapter 2 §13050) these concepts are separately considered as beneficial uses and water quality objectives. Beneficial uses and water quality objectives are to be established for all waters of the state, both surface and subsurface (groundwater).

BENEFICIAL USES

Beneficial uses were tabulated and discussed in Chapters 1 and 2 of the 1975 Basin Plan and in Chapter 2 of the 1983 Basin Plan. In 1983, twenty-one beneficial uses were defined statewide. Of those, eighteen were identified and recognized in the 1983 Plan: **MUN, AGR, IND, PROC, GWR, NAV, POW, REC1, REC 2, COMM, WARM, COLD, CIOL, WILD, RARE, SPWN, MAR,** and **SHEL.**

In 1988, the State Board adopted the Sources of Drinking Water Policy (SWRCB Resolution No. 88-63) which directed the Regional Boards to add the Municipal and Domestic Supply (**MUN**) Beneficial Use for all waterbodies not already so designated, unless they met certain exception criteria. To implement this Policy, the Regional Board revised the table of Beneficial Uses in the 1983 Basin Plan, adding the **MUN** designation for certain waterbodies and specifically excepting others (RWQCB Resolution No. 89-42). Shortly thereafter, this revised Beneficial Use table was reviewed again and changes were made, including the addition of the Water Contact Recreation (**REC 1**) use for some waterbodies, the revision of some Beneficial Use designations from intermittent (I) to existing (X), and the addition of more waterbodies (RWQCB Resolution No. 89-99).

In this Plan, further changes to the Beneficial Use table have been made. Significant waterbodies not previously identified are included and the beneficial uses are designated. Certain of these waters are excepted from the **MUN** designation. The designation **RARE** has been added where substantial evidence indicates that the waterbody supports rare, threatened or endangered species (Appendix II). Certain known wetlands in the Region are listed in a new waterbody category (see wetlands discussion below). A revised list of Beneficial Uses was developed as part of a comprehensive statewide update of all Basin Plans. Using this revised statewide list as a guide, this Basin Plan updates the list of Beneficial Uses definitions contained in the 1983 Plan.

In all, twenty-three beneficial uses are now defined statewide; of these, nineteen are recognized within the Santa Ana Region. (The four not utilized are Migration of Aquatic Organisms, Freshwater Replenishment, Inland Saline Water Habitat and Aquaculture). One beneficial use specific to the Region, Limited Warm Freshwater Habitat, has been added, bringing the total number of beneficial uses recognized in the Santa Ana Region to twenty. The region's beneficial uses are listed and described below.

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BENEFICIAL USE DEFINITION

Municipal and Domestic Supply (**MUN**) waters are used for community, military, municipal or individual water supply systems. These uses may include, but are not limited to, drinking water supply.

Agricultural Supply (**AGR**) waters are used for farming, horticulture or ranching. These uses may include, but are not limited to, irrigation, stock watering, and support of vegetation for range grazing.

Industrial Service Supply (**IND**) waters are used for industrial activities that do not depend primarily on water quality. These uses may include, but are not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection and oil well repressurization.

Industrial Process Supply (**PROC**) waters are used for industrial activities that depend primarily on water quality. These uses may include, but are not limited to, process water supply and all uses of water related to product manufacture or food preparation.

Groundwater Recharge (**GWR**) waters are used for natural or artificial recharge of groundwater for purposes that may include, but are not limited to, future extraction, maintaining water quality or halting saltwater intrusion into freshwater aquifers.

Navigation (**NAV**) waters are used for shipping, travel or other transportation by private, commercial or military vessels.

Hydropower Generation (**POW**) waters are used for hydroelectric power generation.

Water Contact Recreation **(REC 1*)** waters are used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses may include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, whitewater activities, fishing and use of natural hot springs.

* The **REC 1** and **REC 2** beneficial use of designations assigned to surface waterbodies in this Region should not be construed as encouraging recreational activities. In some cases, such as Lake Matthews and certain reaches of the Santa Ana River, access to the waterbodies is prohibited because of potentially hazardous conditions and/or because of the need to protect other uses, such as municipal supply or sensitive wildlife habitat. Where **REC 1** or **REC 2** is indicated as a beneficial use in Table 3-1, the designations are intended to indicate that the uses exist or that the water quality of the waterbody could support recreational uses.

Non-contact Water Recreation (**REC 2***) waters are used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water would be reasonably possible. These uses may include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting sightseeing and aesthetic enjoyment in conjunction with the above activities.

Commercial and Sportfishing (**COMM**) waters are used for commercial or recreational collection of fish or other organisms, including those collected for bait. These uses may include, but are not limited to, uses involving organisms intended for human consumption.

Warm Freshwater Habitat (**WARM**) waters support warmwater ecosystems that may include, but are not limited to, preservation and enhancement of aquatic habitats, vegetation, fish and wildlife, including invertebrates.

Limited Warm Freshwater Habitat (**LWRM**) waters support warmwater ecosystems which are severely limited in diversity and abundance as the result of concrete-lined watercourses and low, shallow dry weather flows which result in extreme temperature, pH, and/or dissolved oxygen conditions. Naturally reproducing finfish populations are not expected to occur in **LWRM** waters.

Cold Freshwater Habitat (**COLD**) waters support coldwater ecosystems that may include, but are not limited to, preservations and enhancement of aquatic habitats, vegetation, fish and wildlife, including invertebrates.

Preservation of Biological Habitats of Special Significance (**BIOL**) waters support designated areas or habitats, including, but not limited to, established refuges, parks, sanctuaries, ecological reserves or preserves, and Areas of Special Biological Significance (ASBS), where the preservation and enhancement of natural resources requires special protection.

Wildlife Habitat (**WILD**) waters support wildlife habitats that may include, but are not limited to, the preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.

Rare, Threatened or Endangered Species (**RARE**) waters support the habitats necessary for the survival and successful maintenance of plant or animal species designated under state or federal law as rare, threatened or endangered.

* The **REC 1** and **REC 2** beneficial use of designations assigned to surface waterbodies in this Region should not be construed as encouraging recreational activities. In some cases, such as Lake Matthews and certain reaches of the Santa Ana River, access to the waterbodies is prohibited because of potentially hazardous conditions and/or because of the need to protect other uses, such as municipal supply or sensitive wildlife habitat. Where **REC 1** or **REC 2** is indicated as a beneficial use in Table 3-1, the designations are intended to indicate that the uses exist or that the water quality of the waterbody could support recreational uses.

Spawning, Reproduction and Development (**SPWN**) waters support high quality aquatic habitats necessary for reproduction and early development of fish and wildlife.

Marine Habitat (**MAR**) waters support marine ecosystems that include, but are not limited to, preservation and enhancement of marine habitats, vegetation (***e.g.,*** kelp), fish and shellfish and wildlife (***e.g.,*** marine mammals and shorebirds).

Shellfish Harvesting (**SHEL**) waters support habitats necessary for shellfish (***e.g.,*** clams, oysters, limpets, abalone, shrimp, crab, lobster, sea urchins and mussels) collected for human consumption, commercial or sport purposes.

Estuarine Habitat (**EST**) waters support estuarine ecosystems, which may include, but are not limited to, preservation and enhancement of estuarine habitats, vegetation, fish, and shellfish, and wildlife, such as waterfowl, shorebirds, and marine mammals.

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More than one beneficial use may be identified for a given waterbody. The most sensitive use must be protected. The Regional Board reserves the right to resolve any conflicts among beneficial uses based on the facts in a given case.

WETLANDS

The Clean Water Act was enacted by Congress to restore and maintain the chemical, physical and biological integrity of the nation's waters. The nation's waters include ***wetlands***, as well as rivers, streams, lakes, estuaries and the territorial seas. Generally, wetlands include swamps, marshes, bogs, sloughs, mangroves, wet meadows, savannas, wet tundra, playa lakes and vernal pools. Wetlands serve a number of important functions, including absorption of floodwaters, shoreline erosion control and water quality improvement by the removal of pollutants. They also provide habitat for wetland species, and have important aesthetic, recreational, scientific and educational values. More than half of the wetlands in the United States have been destroyed. Due to this high loss, a goal of "no net loss" of wetlands has been established at both the federal and state level.

The definition of wetlands varies widely among the federal agencies, however both the United States Army Corps of Engineers and United States Environmental Protection Agency (US EPA) agree on the definition in Section 404 of the Clean Water Act, which specifies that wetlands are "those areas that are inundated or saturated with surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands are generally agreed to have three characteristics: hydrophytic vegetation; hydric soils; and wetland hydrology. Hydrophytic vegetation describes those plants adapted for growing in water, soil or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. Hydric soils are those soils that are oxygen-depleted due to saturation for long periods during

the growing season. Wetland hydrology can be described as the presence of water at or above the soil surface for a sufficient period of the year to significantly influence the plant types and soil that occur in the area. Strict definitions of these characteristics have not been formally adopted. The Regional Board includes these characteristics and criteria as general reference and not as guidance.

A part of an overall effort to protect the Nation's wetland resources, US EPA has called for states to adopt water quality standards (beneficial uses and water quality objectives) for wetlands. Applying water quality standards to wetlands provides a regulatory basis for a variety of wetlands management programs. For example, these standards will play an important role in the State and Regional Boards' water quality certification process by providing the basis for approving, conditioning or denying federal permits and licenses as appropriate. (This certification process, conducted in accordance with Section 401 of the CWA is described in more detail in Chapter 5.)

The 1975 and 1983 Basin Plans listed a number of waterbodies which are known to be or to include wetlands (***e.g.,*** San Joaquin Freshwater Marsh, Upper Newport Bay, Anaheim Bay-National Wildlife Refuge). These Plans specified both beneficial uses and water quality objectives for these waterbodies. In the earlier Plans, these waters were not specifically identified as wetlands. In this plan, a "Wetlands" waterbody category has been added to the Table of Beneficial Uses. Certain waters known to be wetlands are listed under this category and their beneficial uses are designated. (Note: estuarine wetlands continue to be shown in the "Bays, Estuaries and Tidal Prisms" category). The numeric objectives specified for these wetlands in the earlier Basin Plans are included in this Plan (Chapter 4). Additional numeric objectives will be developed and implemented as part of the ongoing Basin Planning process. Further detailed review of the water resources within the Region is also expected to result in the listing of additional wetlands.

The intent of including the wetlands category is to provide a more accurate description of the Region's waters. The listing of specific wetlands does not trigger any new or different regulatory actions by the Regional Board. Standards applied to permitting, 401 certification, and/or enforcement actions will not be affected by this listing. Again, the listing of wetlands in this Plan is a <u>partial</u> one only and should not be construed as placing any limitations on the exercise of the Regional Board's responsibilities or authorities with respect to the protection of wetlands in the region. Nor is the present listing intended to define wetlands which are subject to the United States Army of Corps of Engineers jurisdiction.

Figure 3-1 shows the general locations of the wetlands listed in this Plan. The specific boundaries of each of these wetland areas will be determined on an as-needed basis (for 401 certifications and the like), using the methods described in the 1987 Corps of Engineers Wetland Delineation Manual or other accepted techniques.

A brief description of each of the wetlands listed in this Plan is provided in Appendix III. Some of these wetlands occur naturally. Others were created, either incidentally, as the result of the construction of dams or levees, or purposefully, as mitigation for

development projects elsewhere. Examples of created wetlands include those in the Prado Basin, which resulted from the construction of Prado Dam, and the San Joaquin Freshwater Marsh, created for development mitigation purposes.

A third type of wetlands, constructed wetlands, is proposed for the Santa Ana Region. Constructed wetlands would be designed, built and managed to provide wastewater treatment to meet specific waste discharge requirements. Constructed wetlands do not include percolation ponds, equalization basins or other conventional treatment works. At this time, the proposed use of constructed wetlands in the region would be principally for nitrogen removal. The use of constructed wetlands for management of stormwater flows may also be proposed. Currently, the Orange County Water District is using approximately 600 acres of ponds in the Prado area to investigate the use of constructed wetlands for nitrogen removal. The City of Riverside proposes to construct and operate wetlands treatment ponds in the Hidden Valley area. Constructed wetlands are also being contemplated by Eastern Municipal Water District and Elsinore Valley Municipal Water District.

While the purpose of these constructed wetlands would be to provide wastewater treatment, they will inevitably have other uses and benefits, including the support of waterfowl and other wildlife and opportunities for education and recreation. The Regional Board's approach toward regulation of the use of these constructed wetlands will be to ensure that these affiliated uses are reasonably protected, while appropriate wastewater treatment uses are supported. As an example, the Board could allow the use of constructed wetlands for the treatment of various parameters such as nitrogen and phosphorus. However, the Board may disallow the use of wetlands for treatment of certain parameter such as toxics if there is evidence that these parameters would adversely and unreasonably affect the affiliated uses of the constructed wetlands. In this case, the Board would require compliance with toxics limits prior to discharge to the constructed wetlands.

In August 1993, the "California Wetlands Conservation Policy" was announced by the Governor. The Policy, included in the Appendix III, has three principal objectives:

- to ensure no overall net loss of wetlands and achieve a long-term gain in the quantity, quality and permanence of wetlands acreage and values;

- to reduce procedural complexity and confusion in the administration of wetlands conservation programs; and

- make cooperative planning efforts and landowner incentive programs the primary focus of wetland conservation and restoration.

The methods identified to achieve these objectives are numerous and include:

- a statewide wetlands inventory and identification of conservation, restoration and enhancement goals;

- development of a consistent wetlands definition, standards, and guidelines for regulatory purposes; and

- integration of wetlands policy and planning with other environmental and land use processes.

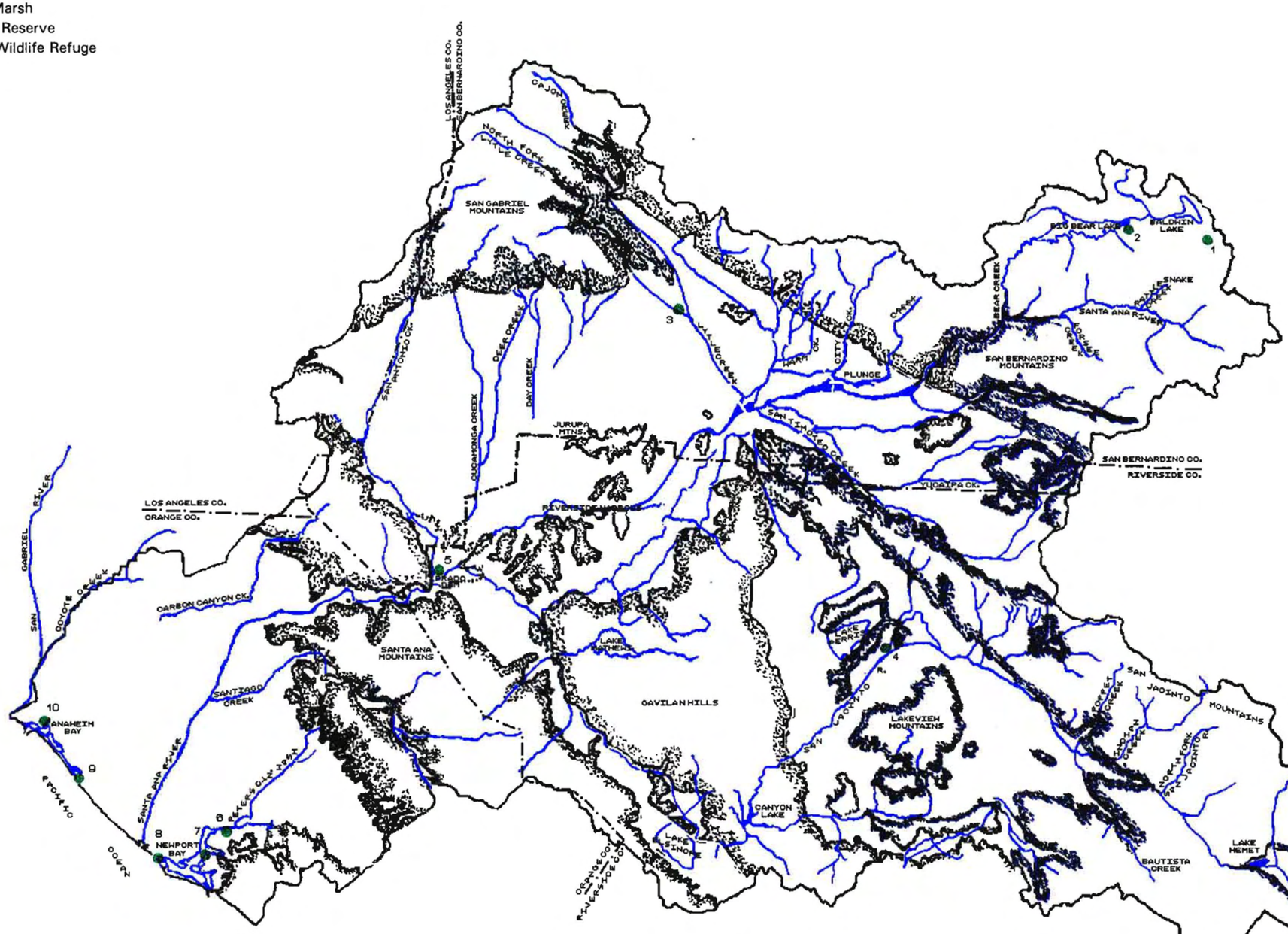
An interagency task force on wetlands is to be created to direct and coordinate administration and implementation of this policy.

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List of Wetlands

1 Shay Meadows
2 Stanfield Marsh
3 Glen Helen
4 San Jacinto Wildlife Area
5 Prado Flood Control Basin
6 San Joaquin Freshwater Marsh
7 Upper Newport Bay
8 Santa Ana River Salt Marsh
9 Bolsa Chica Ecological Reserve
10 Seal Beach - National Wildlife Refuge

FIGURE 3-1
SANTA ANA REGION
WETLANDS



GROUNDWATER (Amended by Resolution No. R8-2004-0001, January 22, 2004)

Groundwater subbasin boundaries included in the 1975 and 1984 Basin Plans, and initially in this 1995 Basin Plan, were, for the most part, based on data and information collected in the 1950's and 1960's. Since these boundaries were first established in the 1975 Basin Plan, a considerable amount of new water level, water quality and geologic data has become available. As part of the 2004 update of the TDS/Nitrogen management plan in the Basin Plan (see further discussion of this work in Chapter 5 – Salt Management Plan), these new data were used to review and revise the sub-basin boundaries.

To accomplish this task, all available geologic studies of the Santa Ana Region, through 1995, were gathered and re-analyzed. A comprehensive database of water level and water quality data and well drilling logs was created and utilized to delineate revised groundwater subbasin boundaries, now designated as groundwater "Management Zones". The groundwater Management Zones are shown in Figures 3-3 through 3-7.

The specific technical basis for distinguishing each groundwater Management Zone is provided in the report entitled "TIN/TDS Study – Phase 2A Final Technical Memorandum," Wildermuth Environmental, Inc., July 2000. In general, the new groundwater Management Zone boundaries were defined on the basis of (1) separation by impervious rock formations or other groundwater barriers, such as geologic faults; (2) distinct flow systems defined by consistent hydraulic gradients that prevent widespread intermixing, even without a physical barrier; and (3) distinct differences in water quality. Groundwater flow, whether or not determined by a physical barrier, was the principal characteristic used to define the Management Zones. Water quality data were used to support understanding of the flow regime and to assure that unusually high or poor quality waters were distinguished for regulatory purposes.

In addition to these technical considerations, water and wastewater management practices and goals for the Chino Basin were considered and used to define an alternative set of Management Zone boundaries for that area. These so-called "maximum benefit" Management Zone delineations , shown in Figure 3-5a, were developed as part of recommendations by the Chino Basin Watermaster and the Inland Empire Utilities Agency (IEUA) to implement a "maximum benefit" proposal, including an Optimum Basin Management Plan (OBMP), for the area.[1] These agencies have committed to the implementation of a specific set of projects and

[1] The term "maximum benefit" is drawn from the state's antidegradation policy (SWCRB Resolution No. 68-16; see Chapter 2)), which provides that high quality water can be lowered only if beneficial uses are fully protected and water quality consistent with ***maximum benefit*** to the people of the state is maintained.

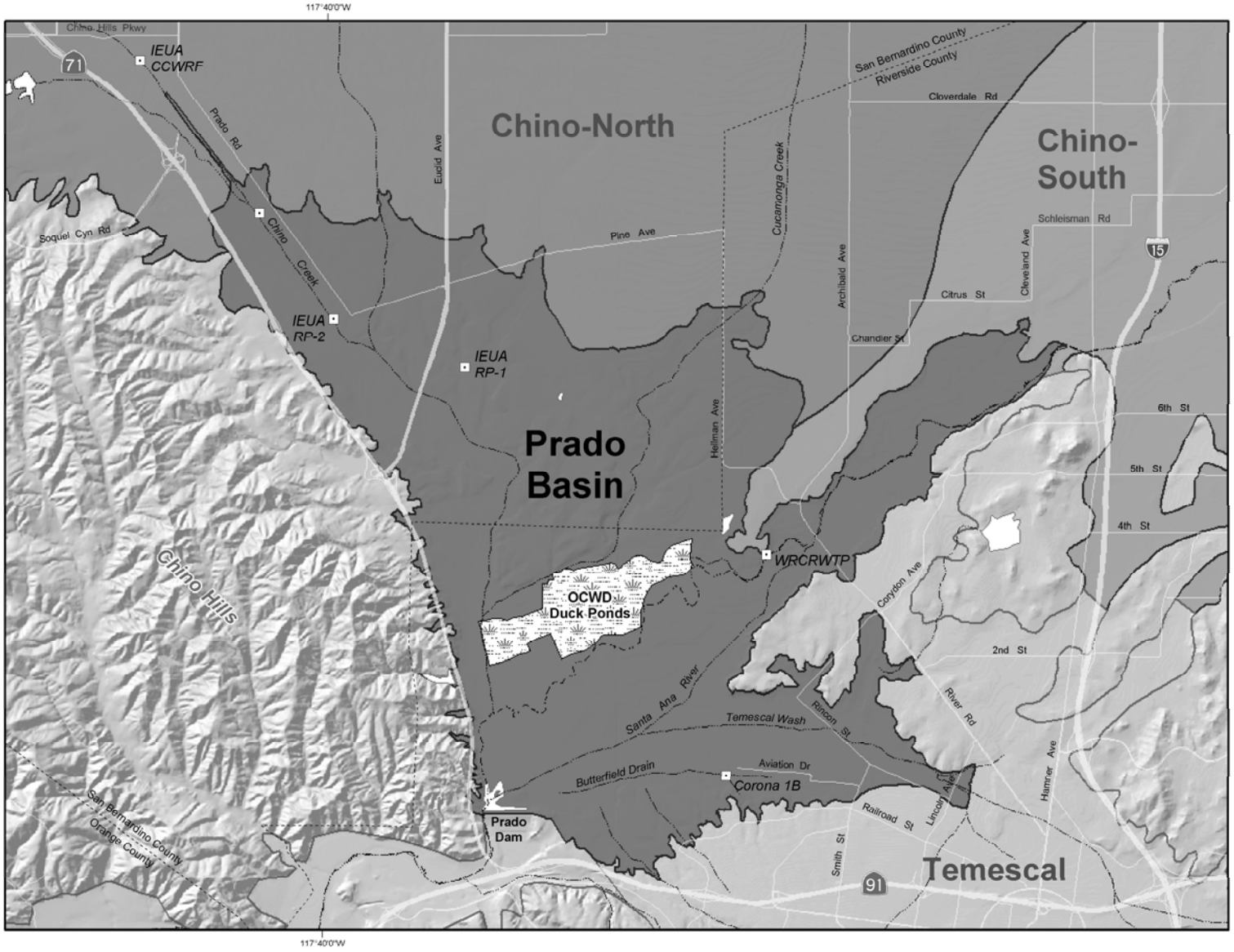
requirements in order to demonstrate that the "maximum benefit" Management Zone boundaries, and particularly the "maximum benefit" nitrate-nitrogen and TDS objectives for these Zones (see Chapter 4), assure protection of beneficial uses and are of maximum benefit to the people of the state (see Chapter 5, VII. Maximum Benefit Implementation Plans for Salt Management, A. Salt Management – Chino Basin and Cucamonga Basin). These "maximum benefit" Management Zone boundaries apply for regulatory purposes provided that the Regional Board continues to find that the Watermaster and IEUA are demonstrating "maximum benefit" by timely and appropriate implementation of these agencies' commitments. If, after consideration at a duly noticed Public Hearing, the Regional Board finds that these commitments are not being met and that "maximum benefit" is not being demonstrated, then the Management Zone boundaries for the Chino Basin shown in Figure 3-5b apply for regulatory purposes.

PRADO BASIN SURFACE WATER MANAGEMENT ZONE (PBMZ)

The flood plain behind Prado Dam has unique hydraulic characteristics. Chino Creek, Cucamonga Creek (which flows into Mill Creek) and Temescal Creek join the Santa Ana River behind the dam. Flood control operations at the dam, coupled with an extremely shallow groundwater table and an unusually thin aquifer, significantly affect these surface flows, as well as subsurface flows in the area. Depending on how the dam is operated, surface waters may or may not percolate behind the dam. There is little or no groundwater storage in the flood plain behind the dam. Any groundwater in storage is forced to the surface because the foot of Prado Dam extends to bedrock and subsurface flows cannot pass through the barrier created by the dam and the surrounding hills. Given these characteristics, this area is designated as a surface water management zone, rather than a groundwater management zone. The Prado Basin Management Zone is generally defined by the 566-foot elevation above mean sea level. It extends from Prado Dam up Chino Creek, Reach 1A and 1B to the concrete-lined portion near the road crossing at Old Central Avenue, up the channel of Mill Creek (Prado Area) to where Mill Creek becomes named as Cucamonga Creek and the concrete-lined portion near the crossing at Hellman Road, up what was formerly identified as Temescal Creek, Reach 1A (from the confluence with the Santa Ana River upstream of Lincoln Avenue) (this area is indistinguishable because of shifting topography and is now considered a part of the Prado Basin Management Zone), and up the Santa Ana River, Reach 3 to the 566-foot elevation (just west of Hamner Avenue). The Prado Basin Management Zone encompasses the Prado Flood Control Basin, which is a created wetlands as defined in this Plan (see the discussion of wetlands elsewhere in this Chapter). Orange County Water District's wetlands ponds are also located within the Prado Basin Management Zone.

The beneficial uses of the proposed PBMZ include all of the beneficial uses currently designated for the surface waters identified above. The PBMZ also incorporates the Prado Flood Control Basin. The beneficial uses previously identified for this Basin are designated also for the Zone (See Table 3-1, Beneficial Uses, page 3-21).

The Prado Basin Management Zone is shown in Figure 3-2.



Map Explanation

Management Zone Boundary

Rivers & Streams

Recycled Water Discharge Location



Produced by:

WE Wildermuth Environmental, Inc.
415 North El Camino Real Suite A
San Clemente, CA 92672
949.498.9294
www.wild-environment.com

Author: AEM
Date: 20031113
File: Figure_3-2.mxd

0 1 Miles
0 2 KM

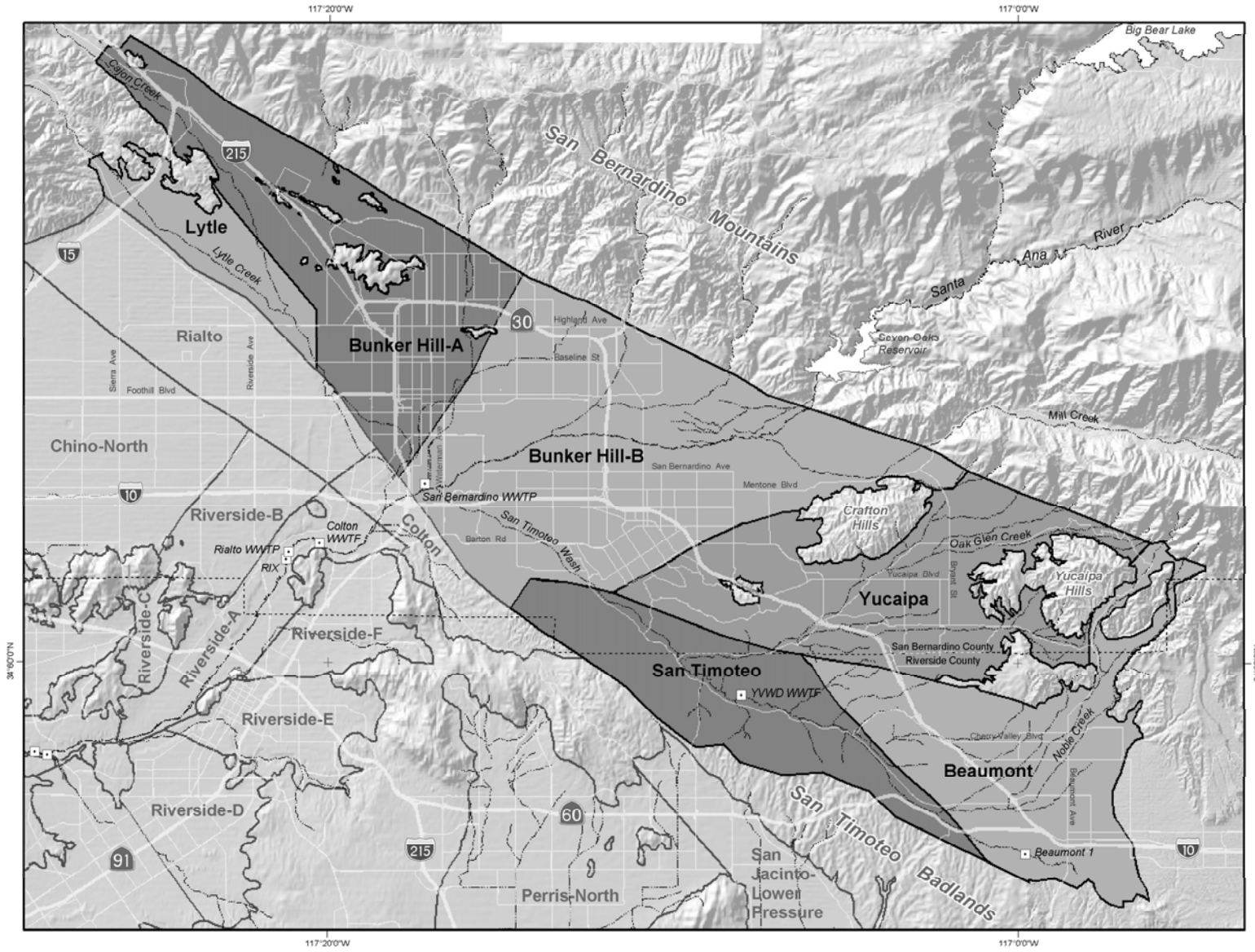
Produced for:

TIN/TDS Task Force

TIN/TDS Study Phase 2A -- Task 3
Develop Updated Boundary Maps for Management Zones (as Ammended and Revised)

Prado Basin
Management Zone Boundaries

Figure 3-2



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Lake Forest, CA 92630
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Author: AEM
Date: 20031113
File: Figure_3-3.mxd

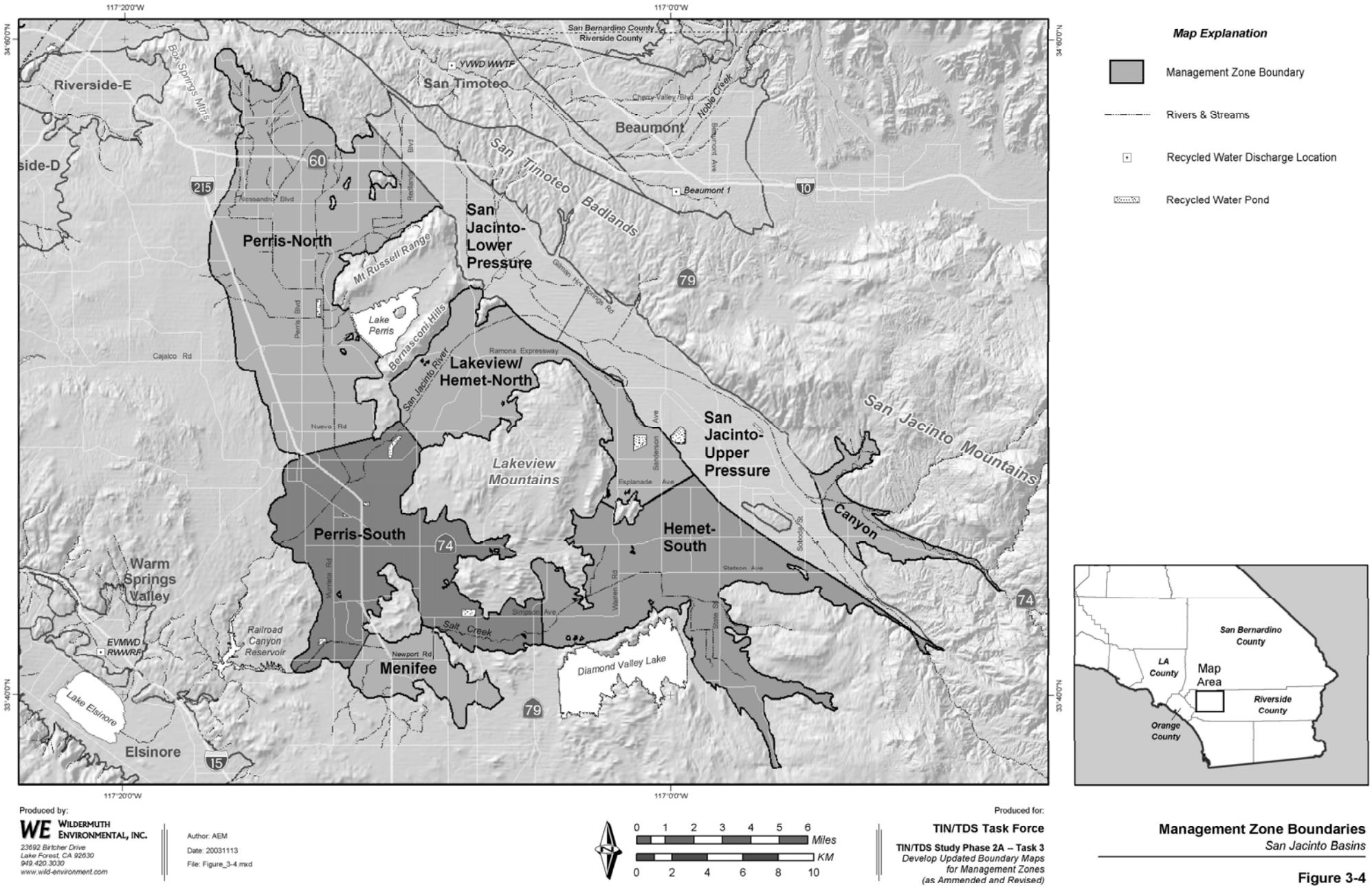
Produced for:

TIN/TDS Task Force

TIN/TDS Study Phase 2A -- Task 3
Develop Updated Boundary Maps for Management Zones (as Ammended and Revised)

Management Zone Boundaries
San Bernardino Valley & Yucaipa/Beaumont Plains

Figure 3-3



Map Explanation

- Management Zone Boundary
- Rivers & Streams
- Recycled Water Discharge Location
- Recycled Water Pond

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Date: 20031113
File: Figure_3-4.mxd

0 1 2 3 4 5 6 Miles

0 2 4 6 8 10 KM

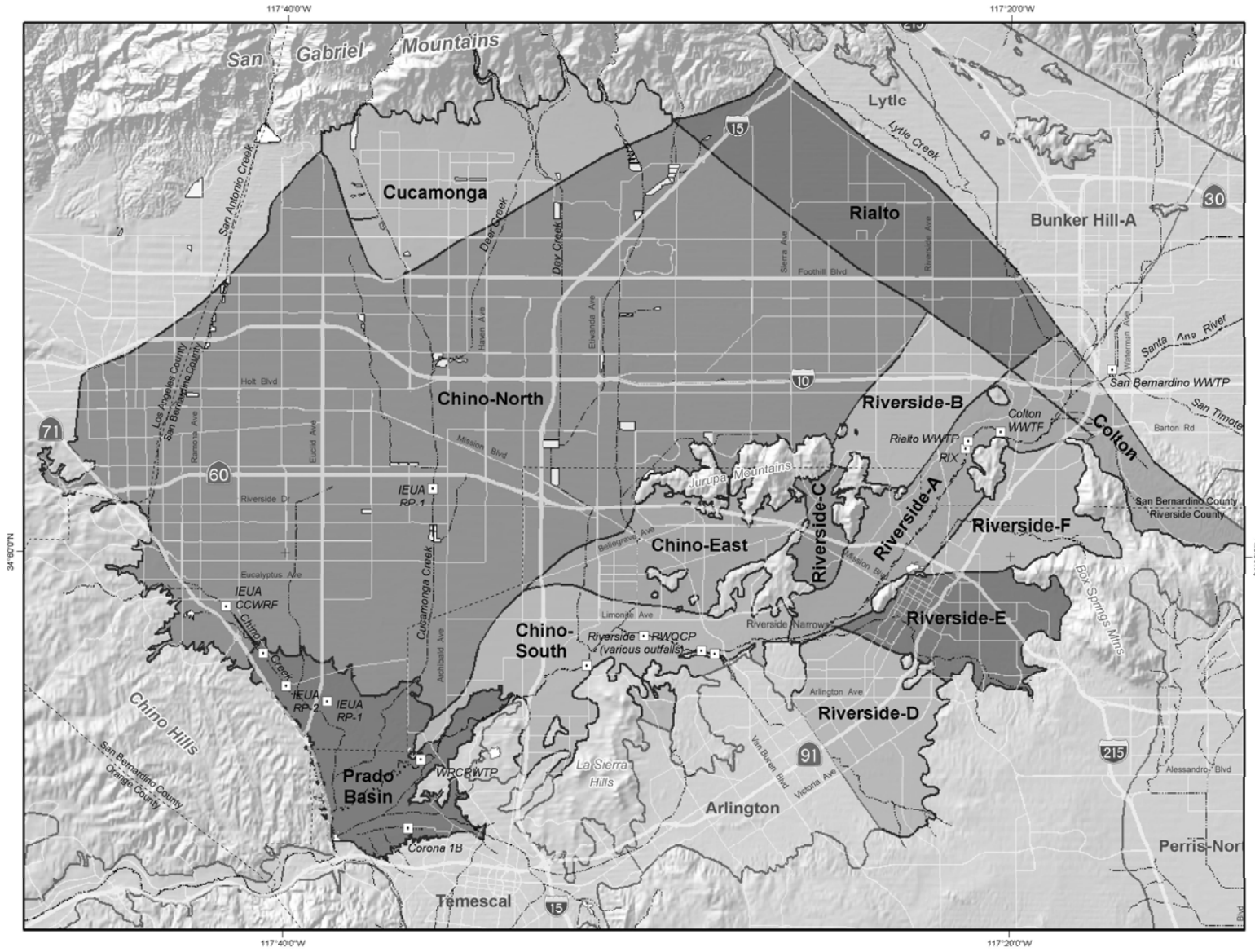
Produced for:

TIN/TDS Task Force

TIN/TDS Study Phase 2A -- Task 3
Develop Updated Boundary Maps for Management Zones (as Ammended and Revised)

Management Zone Boundaries
San Jacinto Basins

Figure 3-4



Map Explanation

- Management Zone Boundary
- Rivers & Streams
- Recycled Water Discharge Location



Management Zone Boundaries
Chino (Maximum Benefit), Rialto-Colton, & Riverside Basins

Figure 3-5a

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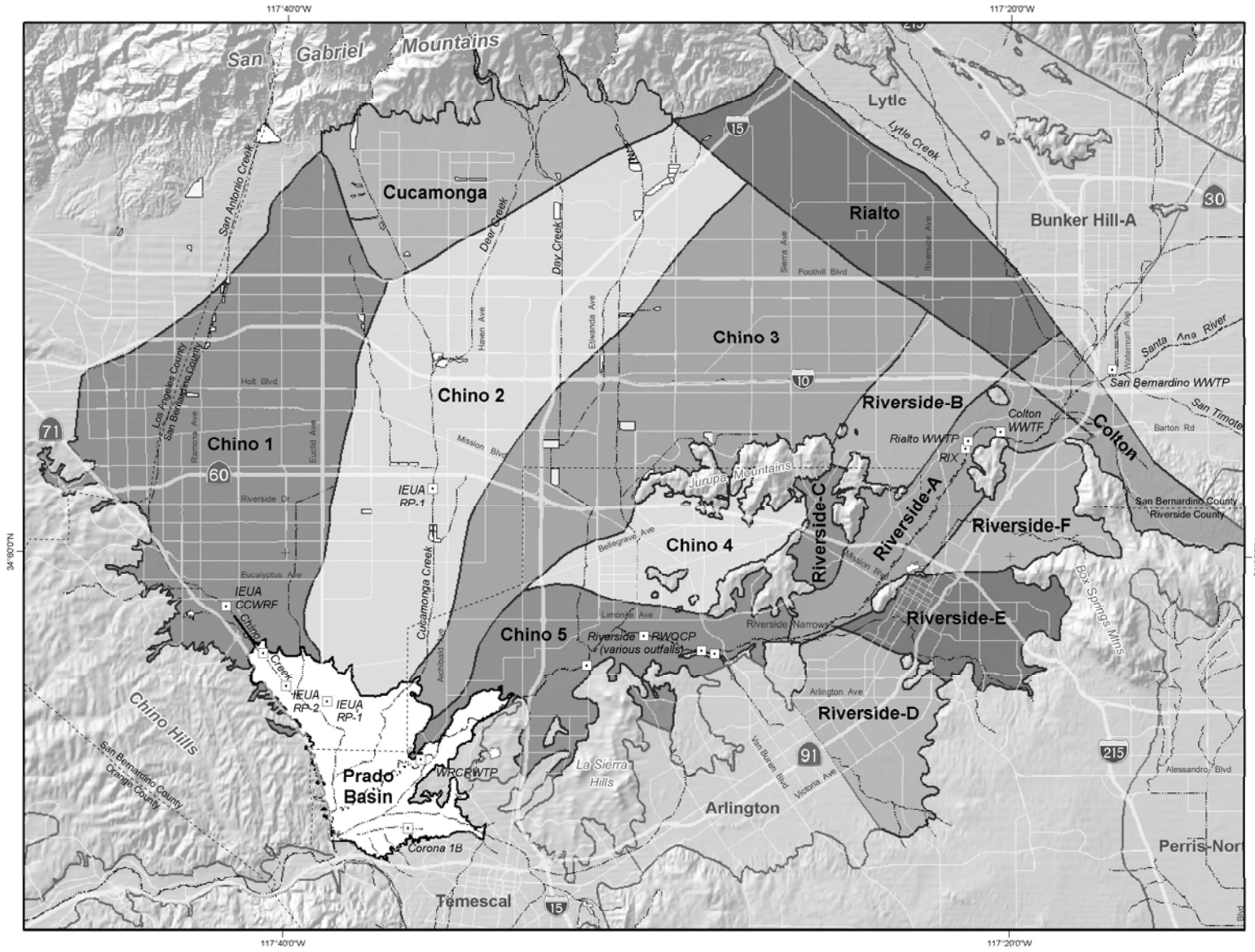
Author: AEM
Date: 20031113
File: Figure_3-5a.mxd

0 1 2 3 4 5 6 Miles
0 2 4 6 8 10 KM

Produced for:

TIN/TDS Task Force

TIN/TDS Study Phase 2A -- Task 3
Develop Updated Boundary Maps for Management Zones (as Ammended and Revised)



Map Explanation

- Management Zone Boundary
- Rivers & Streams
- Recycled Water Discharge Location



Management Zone Boundaries
Chino (Anti-degradation), Rialto-Colton, & Riverside Basins

Figure 3-5b

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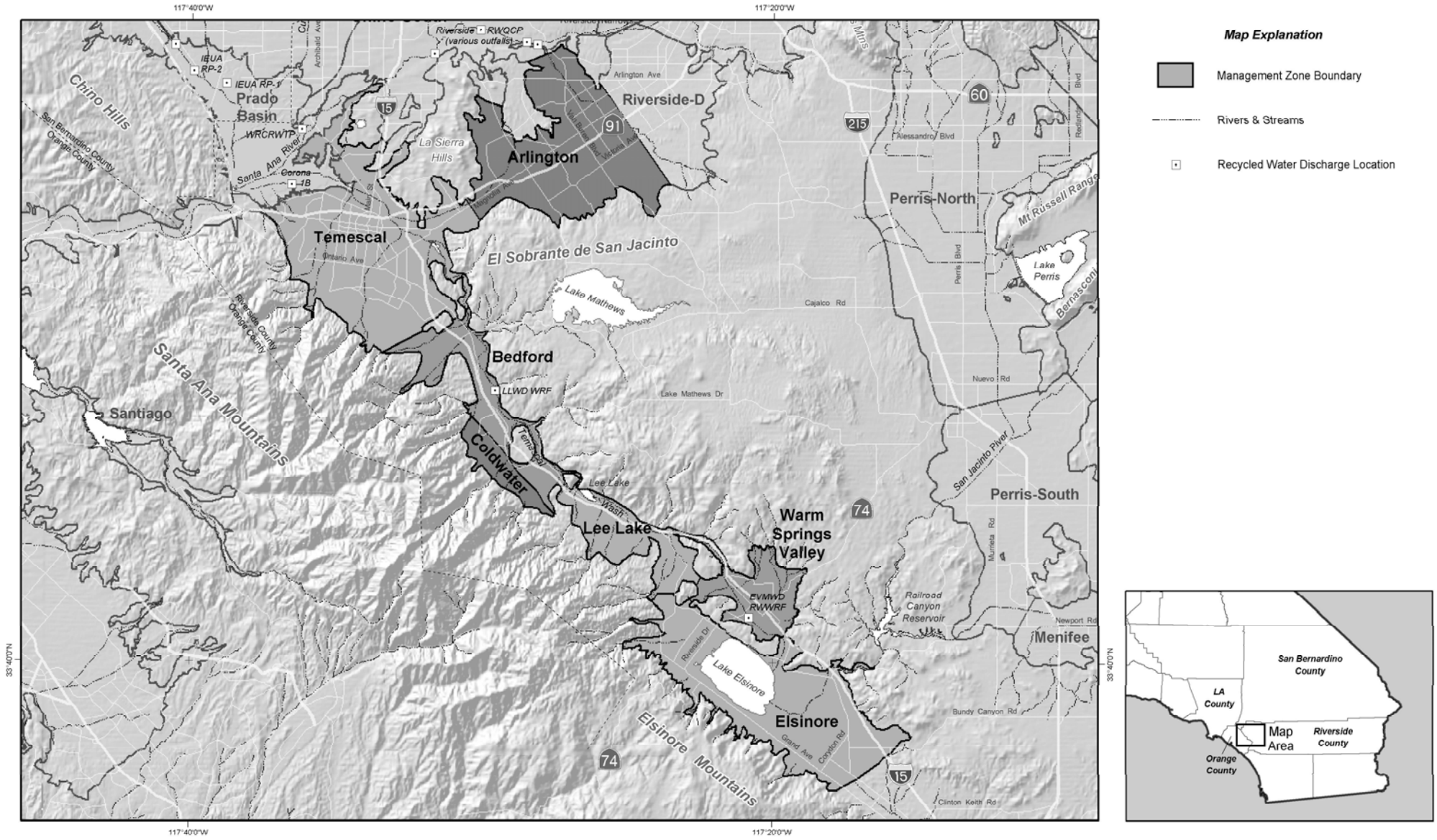
Author: AEM
Date: 20031113
File: Figure_3-5b.mxd

0 1 2 3 4 5 6 Miles
0 2 4 6 8 10 KM

Produced for:

TIN/TDS Task Force

TIN/TDS Study Phase 2A -- Task 3
Develop Updated Boundary Maps for Management Zones (as Ammended and Revised)



Map Explanation

Management Zone Boundary

Rivers & Streams

Recycled Water Discharge Location

Produced by:

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949.420.3030
www.wild-environment.com

Author: AEM
Date: 20031113
File: Figure_3-6.mxd

0 1 2 3 4 5 6 Miles
0 2 4 6 8 10 KM

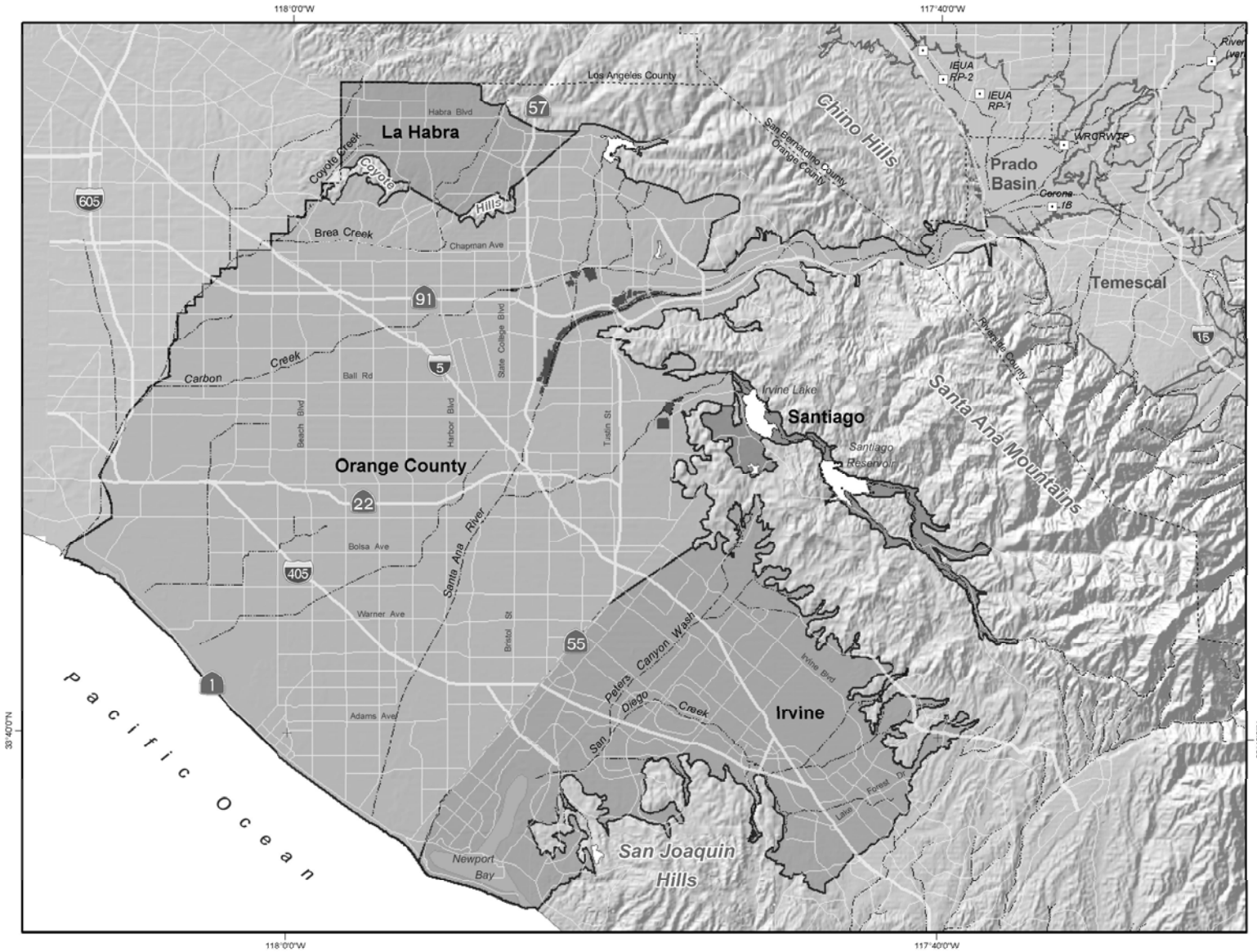
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TIN/TDS Task Force

TIN/TDS Study Phase 2A -- Task 3
Develop Updated Boundary Maps for Management Zones (as Ammended and Revised)

Management Zone Boundaries
Elsinore/Temescal Valleys

Figure 3-6



Map Explanation

- Management Zone Boundary
- Rivers & Streams
- Recycled Water Discharge Location
- Orange County Water District Forebay Recharge Facilities



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WE Wildermuth Environmental, Inc.
23692 Birtcher Drive
Lake Forest, CA 92630
949.420.3030
www.wild-environment.com

Author: AEM
Date: 20031113
File: Figure_3-7.mxd

0 1 2 3 4 5 6 Miles
0 2 4 6 8 10 KM

Produced for:

TIN/TDS Task Force

TIN/TDS Study Phase 2A -- Task 3
Develop Updated Boundary Maps for Management Zones (as Ammended and Revised)

Management Zone Boundaries
Orange County Basins

Figure 3-7

BENEFICIAL USE TABLE

Table 3-1 lists the designated beneficial uses for waterbodies within the Santa Ana Region. In this table, an "X" indicates that the waterbody has an existing or potential use. Many of the existing uses are well-known; some are not. Lakes and streams may have potential beneficial uses established because plans already exist to put he water to those uses, or because conditions (***e.g.,*** location, demand) make such future use likely. The establishment of a potential beneficial use serves to protect the quality of that water for such eventual use.

An "I" in Table 3-1 indicates that the waterbody has an intermittent beneficial use. This may occur because water conditions do not allow the beneficial use to exist year-round. The most common example of this is an ephemeral stream. Ephemeral streams in this region include, at one extreme, those which flow only while it is raining or for a short time afterward, and at the other extreme, established streams which flow through part of the year but also dry up for part of the year. While such ephemeral streams are flowing, beneficial uses are made of the water. Because such uses depend on the presence of water, they are intermittent. Waste discharges which could impair intermittent beneficial uses, whether they are made while those uses exist or not, are not permitted.

A "+" in the **MUN** column in Table 3-1 indicates that the waterbody has been specifically excepted from the **MUN** designation in accordance with the criteria specified in the "Sources of Drinking Water Policy."

The listing of waters within the basin attempts to include all significant surface streams and bodies of water, as well as the significant groundwater basins and subbasins which are receiving waters. Specific waters which are not listed have the same beneficial uses as the steams, lakes or reservoirs to which they are tributary or the groundwater basins or subbasin to which they are tributary or overlie.

REFERENCES

The Federal Clean Water Act, 33 USC 466 ***et seq.***

California State Water Resources Control Board, Resolution No. 88-63, "Sources of Drinking Water Policy," adopted May 19, 1988.

California Regional Water Quality Control Board, Santa Ana Region, Resolution No. 89-42, "Incorporation of 'Sources of Drinking Water' Policy into the Water Quality Control Plan (Basin Plan)," adopted March 10, 1989.

California Regional Water Quality Control Board, Santa Ana Region, Resolution No. 89-99, "Adoption of Revised Table of Beneficial Uses," adopted July 14, 1989.

California Water Code, Section 13000, "Water Quality" ***et seq.***

City of Big Bear Department of Water and Power, “Final Report – Task 4, Revised Water Quality Objectives, Big Bear Ground Water Basins,” April 1993.

United States Environmental Protection Agency “National Guidance-Water Quality Standards for Wetlands,” EPA 440/s-90-011, July 1990.

Governor Pete Wilson, “California Wetlands Conservation Policy,” August, 1993.

REGION 8 INDEX

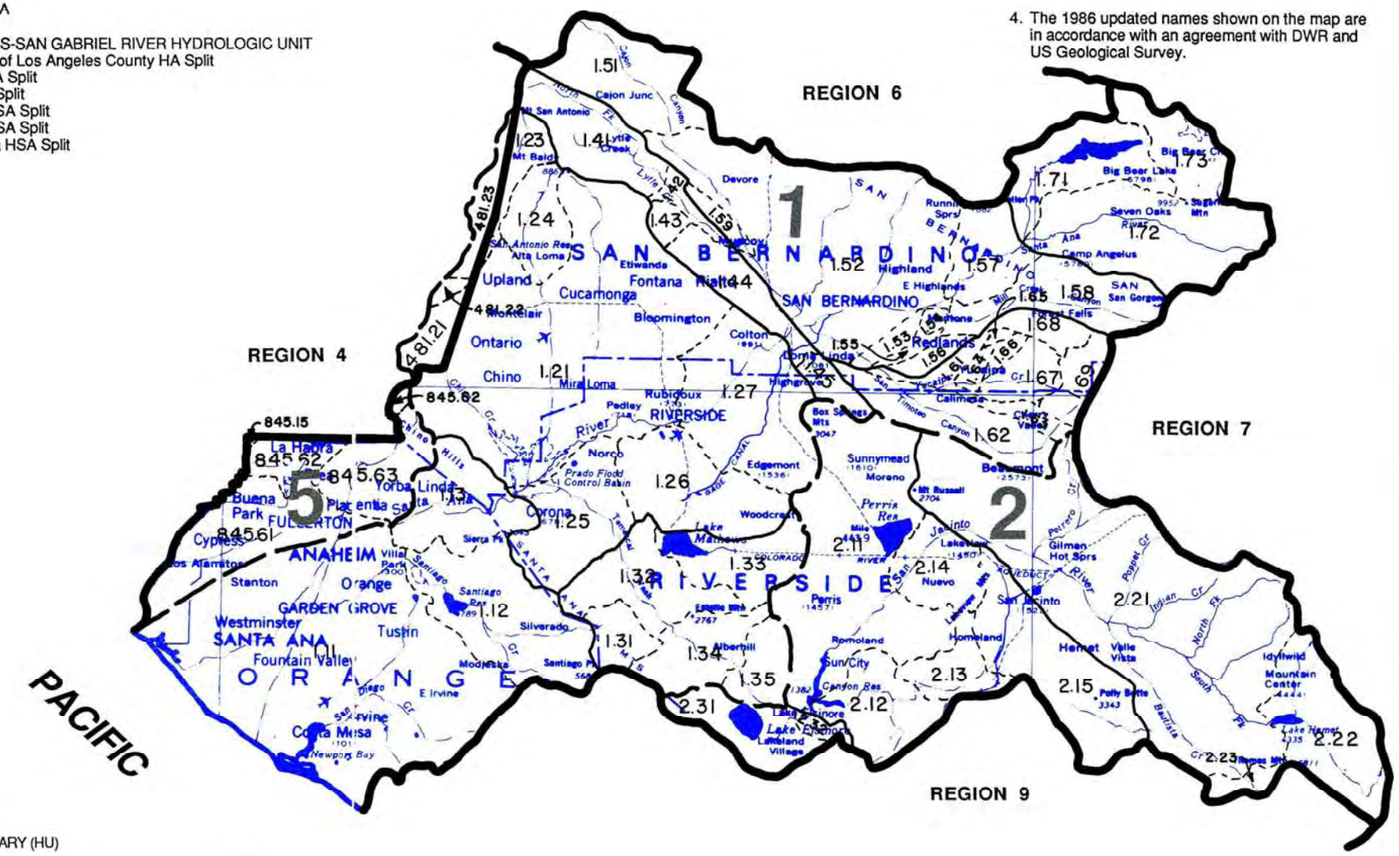
801.00	SANTA ANA RIVER HYDROLOGIC UNIT
801.10	Lower Santa Ana River HA
1.11	East Coastal Plain HSA
1.12	Santiago HSA
1.13	Santa Ana Narrows HSA
801.20	Middle Santa Ana River HA Split
801.21	Chino HSA Split
481.21	Chino HSA Split
481.22	Harrison HSA
801.23	Claremont Heights HSA Split
481.23	Claremont Heights HSA Split
801.24	Cucamonga HSA
1.25	Temescal HSA
1.26	Arlington HSA
1.27	Riverside HSA
801.30	Lake Matthews HA
1.31	Coldwater HSA
1.32	Bedford HSA
1.33	Cajalco HSA
1.34	Lee Lake HSA
1.35	Terra Cotta HSA
801.40	Colton-Rialto HA
1.41	Upper Lytle HSA
1.42	Lower Lytle HSA
1.43	Rialto HSA
1.44	Colton HSA
1.45	Reche HSA
801.50	Upper Santa Ana River HA
1.51	Cajon HSA
1.52	Bunker Hill HSA
1.53	Redlands HSA
1.54	Mentone HSA
1.55	Reservoir HSA
1.56	Crafton HSA
1.57	Santa Ana Canyon HSA
1.58	Mill Creek HSA
1.59	Sycamore HSA
801.60	San Timoteo HA
1.61	Yucaipa HSA
1.62	Beaumont HSA
1.63	Cherry Valley HSA
1.64	Chicken Hill HSA
1.65	Gateway HSA
1.66	Oak Glen HSA
1.67	South Mesa HSA
1.68	Triple Falls Creek HSA
1.69	Nobie Creek HSA
801.70	San Bernardino Mountain HA
1.71	Bear Valley HSA
1.72	Seven Oaks HSA
1.73	Baldwin HSA

802.00	SAN JACINTO VALLEY HYDROLOGIC UNIT
802.10	Perris HA
2.11	Perris Valley HSA
2.12	Menifee HSA
2.13	Winchester HSA
2.14	Lakeview HSA
2.15	Hemet HSA
802.20	San Jacinto HA
2.21	Gilman Hot Springs HSA
2.22	Hemet Lake HSA
2.23	Bautista HSA
802.30	Elsinore Valley HA
2.31	Elsinore HSA
2.32	Railroad HSA

805.00	LOS ANGELES-SAN GABRIEL RIVER HYDROLOGIC UNIT
805.10	Coastal Plain of Los Angeles County HA Split
845.15	Central HSA Split
845.60	Anaheim HA Split
845.61	Anaheim HSA Split
845.62	La Habra HSA Split
845.63	Yorba Linda HSA Split

NOTE:

1. The names and areas shown on this map are the same as used by the Department of Water Resources (DWR) in their Bulletin 130 Series except as explained below.
2. The numbering system used on this map is an adaptation of the numbering system used in the 130 Series.
3. The boundary between Region 8 and Region 4 follows the boundary between Los Angeles County and Orange or San Bernardino Counties, not the Hydrologic Boundary. The San Bernardino County line splits Hydrologic Unit 1 (Santa Ana River HU) so that Sub-Areas 481.21, 481.22, and 481.23 are legally in Region 4 but drain into Region 8. The Orange County line splits Hydrologic Unit 5 (Los Angeles-San Gabriel River HU) so that Sub-Areas 845.15, 845.61, 845.62 and 845.63 are legally in Region 8 but drain into Region 4. Therefore, a 5 digit number on the map indicates that a regional boundary divides a hydrologic unit, area or subarea. In these cases the second digit is the number of the region from which the hydrologic area has been separated by the regional boundary. All other digits are as described in the legend.
4. The 1986 updated names shown on the map are in accordance with an agreement with DWR and US Geological Survey.

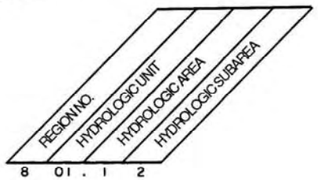


KEY TO REGION



LEGEND

- STREAM
- REGIONAL BOUNDARY
- HYDROLOGIC UNIT BOUNDARY (HU)
- HYDROLOGIC AREA BOUNDARY (HA)
- HYDROLOGIC SUBAREA BOUNDARY (SA)
- 5 HYDROLOGIC UNIT NUMBER



N

April 1973
Revised: July 1976
Revised: August 1986

State Water Resources Control Board
Surveillance and Monitoring Section
T.E. Lavenda, P.E. T E Lavenda

State of California
REGIONAL WATER QUALITY CONTROL BOARD

Santa Ana Region (8)

SANTA ANA HYDROLOGIC BASIN PLANNING AREA (SA)

Scale in miles
8 0 8 16 24 32
Scale 1:500,000

Table 3-1 BENEFICIAL USES - Continued

OCEAN WATERS	BENEFICIAL USE																			Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	MAR	SHEL	EST	Primary	Secondary
NEARSHORE ZONE*																						
San Gabriel River to Poppy Street in Corona Del Mar	+		X			X		X	X	X					X	X	X	X	X		801.11	
Poppy Street to Southeast Regional Boundary	+					X		X	X	X				X	X	X	X	X	X		801.11	
OFFSHORE ZONE																						
Waters Between Nearshore Zone and Limit of State Waters	+		X			X		X	X	X					X	X	X	X				

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

* Defined by Ocean Plan Chapter II B-1.: "Within a zone bounded by shoreline and a distance of 1000 feet from shoreline or the 30-foot depth contour, whichever is further from shoreline…"

Table 3-1 BENEFICIAL USES - Continued

BAYS, ESTUARIES, AND TIIDAL PRISMS	BENEFICIAL USE																				Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	MAR	SHEL	EST	Primary	Secondary
Anaheim Bay – Outer Bay	+					X		X[1]	X					X	X	X	X	X			801.11	
Anaheim Bay – Seal Beach National Wildlife Refuge	+							X	X	X				X	X	X	X	X		X	801.11	
Sunset Bay – Huntington Harbor	+					X		X	X	X					X	X	X	X			801.11	
Bolsa Bay	+							X	X	X				X	X	X	X	X	X			
Bolas Chica Ecological Reserve	+							X	X					X	X	X	X	X		X	801.11	
Lower Newport Bay	+					X		X	X	X					X	X	X	X	X		801.11	
Upper Newport Bay	+							X	X	X				X	X	X	X	X	X	X	801.11	
Santa Ana River Salt Marsh	+							X	X					X	X	X		X		X	801.11	
Tidal Prism of Santa Ana River (to within 1000' of Victoria Street) and Newport Slough	+							X	X	X					X	X		X			801.11	
Tidal Prism of San Gabriel River - River Mouth to Marina Drive	+		X					X	X	X					X	X		X	X	X	845.61	
Tidal Prisms of Flood Control Channels Discharging to Coastal or Bay Waters[1]	+							X	X	X					X			X			801.11	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

[1] No access per agency with jurisdiction (U.S. Navy)

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
LOWER SANTA ANA RIVER BASIN																				
Santa Ana River																				
Reach 1 – Tidal Prism to 17th Street in Santa Ana	+							X[2]	X		I				I				801.11	
Reach 2 – 17th Street in Santa Ana to Prado Dam	+	X			X			X	X		X				X	X			801.11	801.12
Aliso Creek	X				X			X	X		X				X	X			845.63	
Carbon Canyon Creek	X				X			X	X		X				X	X			845.63	
Santiago Creek Drainage																				
Santiago Creek																				
Reach 1 – below Irvine Lake	X				X			X[2]	X		X				X				801.12	801.11
Reach 2 – Irvine Lake (see Lakes, pg. 3-23																				
Reach 3 – Irvine Lake to Modjeska Canyon	I				I			I	I		I				I				801.12	
Reach 4 – Modjeska Canyon	X				X			X	X		X				X				801.12	
Silverado Creek	X				X			X	X		X				X				801.12	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
\+ Excepted from MUN (see text)

[2] Access prohibited in all or part by Orange County Resources Development and Management Division (RDMD)

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
LOWER SANTA ANA RIVER BASIN																				
Santiago Creek Drainage																				
Black Star	I				I			I	I		I				I				801.12	
Ladd Creek	I				I			I	I		I				I	I			801.12	
San Diego Creek Drainage																				
San Diego Creek																				
Reach 1 – below Jeffrey Road	+							X[2]	X		X				X				801.11	
Reach 2 – above Jeffrey Road to Headwaters	+				I			I	I		I				I				801.11	
Other Tributaries: Bonita Creek, Serrano Creek, Peters Canyon Wash, Hicks Canyon Wash, Bee Canyon Wash, Rattlesnake Canyon Wash, Sand Canyon Wash*, and other Tributaries to these Creeks	+				I			I	I		I				I				801.11	
San Gabriel River Drainage																				
Coyote Creek (within Santa Ana Regional boundary	X							X	X		X				X					

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

[2] Access prohibited in all or part by Orange County Resources Development and Management Division (RDMD)
* Sand Canyon Wash also has RARE Beneficial Use

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
UPPER SANTA ANA RIVER BASIN																				
Santa Ana River																				
Reach 3 – Prado Dam to Mission Blvd. in Riverside	+	X			X			X	X		X				X	X	X		801.21	801.21, 801.25
Reach 4 – Mission Blvd. in Riverside to San Jacinto Fault in San Bernardino	+				X			X[3]	X		X				X		X		801.27	801.44
Reach 5 – San Jacinto Fault in Bernardino to Seven Oaks Dam[t]	X*	X			X			X[3]	X		X				X	X			801.52	801.57
Reach 6 – Seven Oaks Dam to Headwaters (see also Individual Tributary Streams)	X	X			X		X	X	X				X		X		X		801.72	
San Bernardino Mountain Streams																				
Mill Creek Drainage:																				
Reach 1 – Confluence with Santa Ana River to Bridge Crossing Route 38 at Upper Powerhouse	I	I			I			I	I		X		I		I	I			801.58	
Reach 2 – Bridge Crossing Route 38 at Upper Powerhouse Headwaters	X	X			X		X	X	X						X				801.58	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

* **MUN** applies upstream of Orange Avenue (Redlands); downstream, water is excepted from **MUN**
[t] Reach 5 uses are intermittent upstream of Waterman Avenue
[3] Access prohibited in some portions by San Bernardino County Flood Control

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Mountain Home Creek	X				X		X	X	X				X		X				801.58	
Mountain Home Creek, East Fork	X				X	X	X	X	X				X		X		X		801.70	
Monkey Face Creek	X				X			X	X				X		X				801.70	
Alger Creek	X				X			X	X				X		X				801.70	
Falls Creek	X				X		X	X	X				X		X				801.70	
Vivian Creek	X				X			X	X				X		X				801.70	
High Creek	X				X			X	X				X		X				801.70	
Other Tributaries: Lost, Oak Green, Skinner, Momyer, Glen Martin, Camp, Hatchery, Rattlesnake, Slide, Snow, Bridal Vail, and Oak Creeks and other Tributaries to these Creeks	I				I			I	I				I		I				801.71	
Bear Creek Drainage:																				
Bear Creek	X				X		X	X	X				X		X	X	X		801.71	
Siberia Creek	X				X			X	X				X		X		X		801.71	
Slide Creek	I				I			I	I				I		I				801.71	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
All other Tributaries to these Creeks	I				I			I	I				I		I				801.71	
Big Bear Lake (see Lakes, pg. 3-23)																				
Big Bear Lake Tributaries:																				
North Creek	X				X			X	X				X		X		X		801.71	
Metcalf Creek	X				X			X	X				X		X		X		801.71	
Grout Creek	X				X			X	X				X		X		X		801.71	
Rathbone (Rathbun) Creek	X				X			X	X				X		X				801.71	
Meadow Creek	X				X			X	X				X		X				801.71	
Summit Creek	I				I			I	I				I		I				801.71	
Other Tributaries to Big Bear Lake: Knickerbocker, Johnson, Minnnelusa, Polique, and Red Ant Creeks and other Tributaries to these Creeks	I				I			I	I				I		I				801.71	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Baldwin Lake (see Lakes, pg. 3-23)																				
Baldwin Lake Drainage:																				
Shay Creek	X				X			X	X				X		X	X			801.73	
Other Tributaries to Baldwin Lake: Sawmill, Green, and Caribou Canyons and other Tributaries to these Creeks	I				I			I	I				I		I				801.73	
Other Streams Draining to Santa Ana River (Mountain Reaches‡)																				
Cajon Creek	X				X			X	X				X		X	X			801.52	801.51
City Creek	X	X			X			X	X				X		X	X	X		801.57	
Devil Canyon Creek	X				X			X	X				X		X				801.57	
East Twin and Strawberry Creeks	X	X			X			X	X				X		X		X		801.57	
Waterman Canyon Creek	X				X			X	X				X		X				801.57	
Fish Creek	X				X			X	X				X		X		X		801.57	
Forsee Creek	X				X			X	X				X		X		X		801.72	
Plunge Creek	X	X			X			X	X				X		X	X			801.72	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

‡ The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Barton Creek	X	X			X			X	X				X		X				801.72	
Bailey Canyon Creek	I				I			I	I				I		I				801.72	
Kimbark Canyon, East Fork, Kimbark Canyon, Ames Canyon and West Fork Cable Creeks	X				X			X	X		X		X		X				801.52	
Valley Reaches‡ of Above Streams	I				I			I	I				I		I				801.52	
Other Tributaries (Mountain Reaches‡): Alder, Badger Canyon, Bledsoe Gulch, Borea Canyon, Breakneck, Cable Canyon, Cienega Seca, Cold, Converse, Coon, Crystal, Deer, Elder, Fredalba, Frog, Government, Hamilton, Heart Bar, Hemlock, Keller, Kilpecker, Little Mill, Little Sand Canyon, Lost, Meyer Canyon, Mile, Monore Canyon, Oak, Rattlesnake, Round Cienga, Sand, Schneider, Staircase, Warm Springs Canyon, and Wild Horse Creeks and other Tributaries to these Creeks	I				I			I	I				I		I				801.72	801.71, 801.57

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

‡ The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
San Gabriel Mountains Streams (Mountain Reaches‡)																				
San Antonio Creek	X	X	X	X	X		X	X	X				X		X				801.23	
Lytle Creek (South, Middle, and North Forks) and Coldwater Canyon Creek	X	X	X	X	X		X	X	X				X		X	X			801.41	801.42, 801.52, 801.59
Day Creek	X			X	X			X	X				X		X				801.21	
East Etiwanda Creek	X			X	X			X	X				X		X	X			801.21	
Valley Reaches ‡ of Above Steams	I				I			I	I		I				I				801.21	
Cucamonga Creek																				
Reach 1 – Confluence with Mill Creek to 23 rd St. in Upland	+				X			X[3]	X			X			X				801.21	
Reach 2 (Mountain Reach‡) - 23 rd St. In Upland to headwaters	X				X		X	X	X				X		X		X		801.24	
Mill Creek (Prado Area)	+							X	X		X				X	X			801.25	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

‡ The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains

[3] Access prohibited in some portions by San Bernardino County Flood Control

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Other Tributaries (Mountain Reaches ‡): Cajon Canyon, San Sevaine, Deer, Duncan Canyon, Henderson Canyon, Bull, Fan, Demens, Thorpe, Angalls, Telegraph Canyon, Stoddard Canyon, Icehouse Canyon, Cascade Canyon, Cedar, Failing Rock, Kerkhoff, and Cherry Creeks and other Tributaries to these Creeks	I				I			I	I				I		I				801.21	801.23
San Timoteo Area Streams																				
San Timoteo Creek																				
Reach 1A – Santa Ana River Confluence to Barton Road	+	I						I[3]	I		I				I				801.52	
Reach 1B – Barton Road to Gage at San Timoteo Canyon Rd	+	I			I			I[3]	I		I				I				801.52	
Reach 2–Gage at San Timoteo to confluence with Yucaipa Creek	+				X			X[3]	X		X				X				801.61	
Reach 3 – Confluence with Yucaipa Creek to confluence with little San Gorgonio and Noble Creeks (Headwaters of San Timoteo Creek)	+				X			X	X		X				X	X			801.61	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

‡ The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains

[3] Access prohibited in some portions by San Bernardino County Flood Control

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Oak Glen, Potato Canyon, and Birch Creeks	X				X			X	X		X				X				801.67	
Little San Gorgonio Creek	X				X			X	X				X		X				801.69	801.62, 801.63
Yucaipa Creek	I				I			I	I		I				I				801.67	801.61, 801.62, 801.64
Other Tributaries to these Creeks-Valley Reaches‡	I				I			I	I		I				I				801.62	801.52, 801.53
Other Tributaries to these Creek Creek-Mountain Reaches‡	I				I			I	I				I		I				801.69	801.67
Anza Park Drain	X							X	X		X				X		X		801.27	
Sunnyslope Channel	X							X	X		X				X		X		801.27	
Tequesquite Arroyo (Sycamore Creek)	+				X			X	X		X				X		X		801.27	
Prado Area Streams																				
Chino Creek																				
Reach 1A – Santa Ana River confluence to downstream of confluence with Mill Creek (Prado Area)	+							X	X		X				X	X			801.21	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

‡ The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Reach 1B – Confluence with Mill Creek (Prado Area) to beginning of concrete lined channel south of Los Serranos Rd.**	+							X	X		X				X	X			801.21	
Reach 2 – Beginning of concrete lined south of Los Serranos Rd. to confluence with San Antonio Creek	+				X			X[3]	X				X		X				801.21	
Temescal Creek																				
Reach 1 – Lincoln Ave. to Riverside Canal	+							X[4]	X		X				X				801.25	
Reach 2 – Riverside Canal to Lee Lake	+	I	I		I			I	I			I							801.32	801.25
Reach 3 – Lee Lake (see Lakes, Pg. 3-36)																				
Reach 4 – Lee Lake to Mid-Section line of Section 17 (downstream end of freeway cut)	+	I			I			I	I		I				I	X			801.34	
Reach 5 – Mid-section line of Section 17 (downstream end of Freeway cut) to Elsinore Groundwater Subbasin Boundary	+	X			X			X	X		X				X	X			801.35	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
\+ Excepted from MUN (see text)

** The confluence of Mill Creek is in Chino Creek, Reach 1B
[3] Access prohibited in some portions by San Bernardino County Flood Control District
[4] Access prohibited in some portions by Riverside County Flood Control District

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Reach 6 – Elsinore Groundwater Subbasin Boundary to Lake Elsinore Outlet	+				I			I	I		I				I				801.35	
Coldwater Canyon Creek	X	X			X			X	X		X				X				801.32	
Bedford Canyon Creek	+				I			I	I		I				I				801.32	
Dawson Canyon Creek	I				I			I	I		I				I				801.32	
Other Tributaries to these Creeks	I				I			I	I		I				I				801.32	
SAN JACINTO RIVER BASIN																				
San Jacinto River																				
Reach 1 – Lake Elsinore to Canyon Lake	I	I			I			I	I		I				I				801.32	802.31
Reach 2 – Canyon Lake (see Lakes, Pg. 3-24)																				
Reach 3 – Canyon Lake to Nuevo Road	+	I			I			I	I		I				I				802.11	
Reach 4 – Nuveo Road to North-South Mid-Section Line, T4S/R1W-S8	+	I			I			I	I		I				I				802.14	802.21
Reach 5 – North-South Mid-Section Line, T4S/R1 W-S8, to Confluence with Poppet Creek	+	I			I			I	I		I				I				802.21	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE*	SPWN	EST	Primary	Secondary
Reach 6 – Poppet Creek to Cranston Bridge	I	I			I			I	I		I				I				802.21	
Reach 7 – Cranston Bridge to Lake Hemet	X	X			X			X	X				X		X				801.21	
Bautista Creek – Headwaters to Debris Dam	X	X			X			X	X				X		X				802.21	802.23
Strawberry Creek and San Jacinto River, North Fork	X	X			X			X	X				X		X				801.21	
Fuller Mill Creek	X	X			X			X	X				X		X				802.22	
Stone Creek	X	X			X			X	X				X		X				802.21	
Salt Creek	+							I	I		I				I				802.12	
Other Tributaries: Logan, Black Mountain, Juaro Canyon, Indian, Hurkey, Poppet, and Protrero Creeks and other Tributaries to these Creeks	I	I			I			I	I		I				I				802.21	802.22

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

LAKES AND RESERVOIRS	BENEFICIAL USE																	Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
UPPER SANTA ANA RIVER BASIN																				
Baldwin Lake	+							I	I		I		I	I	I	I			801.73	
Big Bear Lake	X	X			X			X	X		X		X		X	X			801.71	
Erwin Lake	X							X	X				X	X	X	X			801.73	
Evans, Lake	+							X	X		X		X		X				801.27	
Jenks Lake	X	X			X			X	X				X		X				801.72	
Lee Lake	+	X	X		X			X	X		X				X				802.34	
Mathews, Lake	X	X	X	X	X			X[5]	X		X				X	X			802.33	
Mockingbird Reservoir	+	X						X[6]	X		X				X				802.26	
Norconian, Lake	+							X	X		X				X				802.25	
LOWER SANTA ANA RIVER BASIN																				
Anaheim Lake	+				X			X	X		X				X				801.11	
Irvine Lake (Santiago Reservoir)	X	X						X	X		X				X				801.12	
Laguna, Lambert, Peters Canyon, Rattlesnake, Sand Canyon, and Siphon Reservoirs	+	X						X[7]	X		X				X				801.11	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

[5] Access prohibited by the Metropolitan Water District.
[6] Access prohibited by the Gage Canal Company (owner-operator)
[7] Access prohibited by the Irvine Company and/or the Irvine Ranch Water District

Table 3-1 BENEFICIAL USES - Continued

LAKES AND RESERVOIRS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE*	SPWN	EST	Primary	Secondary
SAN JACINTO RIVER BASIN																				
Canyon Lake (Railroad Canyon Reservoir)	X	X			X			X	X		X				X				802.11	802.12
Elsinore, Lake	+							X	X		X				X				802.31	
Fulmor, Lake	X	X						X	X		X		X		X				802.21	
Hemet, Lake	X	X			X		X	X	X		X		X		X		X		802.22	
Perris, Lake	X	X	X	X	X			X	X	X	X		X		X				802.11	

X Present or Potential Beneficial Use .
I Intermittent Beneficial Use
\+ Excepted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

WETLANDS (INLAND)	BENEFICIAL USE																	Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
San Joaquin Freshwater Marsh**	+							X	X		X			X	X	X			801.11	801.14
Shay Meadows	I							I	I				I		I				801.73	
Stanfield Marsh**	X							X	X				X		X	X			801.71	
Prado Basin Management Zone@	+							X	X		X				X	X			802.21	
San Jacinto Wildlife Preserve**	+							X	X		X			X	X	X			802.21	802.14
Gen Helen	X							X	X		X				X				801.59	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

** This is a created wetland as defined in the wetland discussion
@ The Prado Basin Management Zone includes the Prado Flood Control Basin, a created wetland as defined in the Basin Plan (see Chapter 3, pages 3-4 through 3-7)

Table 3-1 BENEFICIAL USES - Continued

GROUNDWATER MANAGEMENT ZONES	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
UPPER SANTA ANA RIVER BASIN																				
Big Bear Valley	X			X															801.71	801.73
Beaumont	X	X	X	X															801.62	801.63, 801.69
Bunker Hill - A	X	X	X	X															801.52	801.52
Bunker Hill - B	X	X	X	X															802.52	801.53, 801.54, 801.57, 801.58
Colton	X	X	X	X															801.44	801.45
Chino North “maximum benefit”++	X	X	X	X															801.21	481.21, 481.23
Chino 1 – “antidegradation”++	X	X	X	X															801.21	481.21
Chino 2 – “antidegradation”++	X	X	X	X															801.21	
Chino 3 – “antidegradation”++	X	X	X	X															801.21	
Chino East @	X	X	X	X															801.21	801.27
Chino South @	X	X	X	X															801.21	801.25, 801.26
Cucamonga	X	X	X	X															801.24	801.21

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

++ Chino North “maximum benefit” management zone applies unless Regional Board determines that lowering of water quality is not of maximum benefit to the people of the state; in that case, the Chino 1, 2, and 3 “antidegradation” management zones would apply (see also discussion in Chapter 5).

@ Chino East and South are the designations in the Chino Basin Watermaster “maximum benefit” proposal (see Chapter 5) for the management zones identified by Wildermuth Environmental, Inc. (July 2000) as Chino 4 and 5, respectively.

Table 3-1 BENEFICIAL USES - Continued

GROUNDWATER MANAGEMENT ZONES	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Lytle	X	X	X	X															801.59	801.42
Rialto	X	X	X	X															801.44	801.21, 801.43
San Timoteo	X	X	X	X															801.62	801.61
Yucaipa	X	X	X	X															801.61	801.55, 801.63, 801.67
MIDDLE SANTA ANA RIVER BASIN																				
Arlington	X	X	X	X															801.26	
Bedford	X	X	X	X															801.32	481.31
Coldwater	X	X	X	X															801.31	
Elsinore	X	X		X															802.31	
Lee Lake	X	X	X	X															801.34	
Riverside - A	X	X	X	X															801.27	801.44
Riverside – B	X	X	X	X															801.27	801.44
Riverside - C	X	X	X	X															801.27	
Riverside - D	X	X	X	X															801.27	801.26
Riverside - E	X	X	X	X															801.27	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

GROUNDWATER MANAGEMENT ZONES	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Riverside - F	X	X	X	X															801.27	
Temescal	X	X	X	X															801.25	
SAN JACINTO RIVER BASIN																				
Garner Valley	X	X																	802.22	
Idyllwild Area	X		X																802.22	802.21
Canyon	X	X	X	X															802.21	
Hemet - South	X	X	X	X															802.15	802.13, 802.21
Lakeview – Hemet North	X	X	X	X															802.14	802.15
Menifee	X	X		X															802.13	
Perris North	X	X	X	X															802.11	
Perris South	X	X																	802.11	802.12, 802.13
San Jacinto - Lower	X	X	X																802.21	802.11
San Jacinto - Upper	X	X	X	X															802.27	802.23

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

GROUNDWATER MANAGEMENT ZONES	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
LOWER SANTA ANA RIVER BASIN																				
La Habra	X	X																	845.62	
Santiago	X	X	X																801.12	801.11
Orange	X	X	X	X															801.11	801.13, 801.14 845.61, 845.63
Irvine	X	X	X	X															801.11	

X Present or Potential Beneficial Use
I Intermittent Beneficial Use
+ Excepted from MUN (see text)

CHAPTER 4

WATER QUALITY OBJECTIVES

INTRODUCTION

The Porter-Cologne Act defines water quality objectives as "…the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area" (§13050 (h)). Further, the Act directs (§13241) that:

"Each regional board shall establish such water quality objectives in water quality control plans as in its judgement will ensure the reasonable protection of beneficial uses as the prevention of nuisance; however, it is recognized that it may be possible for the quality of water to be changed to some degree without unreasonably affecting beneficial uses. Factors to be considered by a regional board in establishing water quality objectives shall include, but not necessarily be limited to, all of the following:

(a) Past, present, and probable future beneficial uses of water.

(b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

(c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.

(d) Economic considerations.

(e) The need for developing housing within the region.

(f) The need to develop and use recycled water."

Two important additional factors which were also considered in setting the water quality objectives in this Plan are (1) historic and present water quality, and (2) the antidegradation policies cited in Chapter 2.

The water quality objectives in this plan supersede and replace those adopted in the 1983 Basin Plan. Perhaps the most significant difference between this and the prior Plan is the inclusion of new objectives for un-ionized ammonia and site-specific objectives for the middle Santa Ana River system for copper, cadmium, and lead.

Some of these water quality objectives refer to "controllable sources" or "controllable water quality factors." Controllable sources include both point and nonpoint source discharges, such as conventional discharges from pipes, as well as discharges from land areas or other diffuse sources. Controllable water quality factors are those characteristics of the discharge and/or the receiving water which can be controlled by

treatment or management methods. Examples of other activities which may not involve waste discharges, but which also constitute controllable water quality factors, include the percolation of storm water, transport/delivery of water via natural stream channels, and stream diversions.

The water quality objectives in this Plan are specified according to waterbody type: ocean waters; enclosed bays and estuaries; inland surface waters; and groundwaters.

The narrative water quality objectives below are arranged alphabetically. They vary in applicability and scope, reflecting the variety of beneficial uses of water that have been identified (Chapter 3). Where numerical objectives are specified, they generally represent the levels that will protect beneficial uses. However, in establishing waste discharge requirements for specific discharges, the Regional Board may find that more stringent levels are necessary to protect beneficial uses. In other cases, an objective may prohibit the discharge of specific substances, may tolerate natural or "background" levels of certain substances or characteristics but no increases over those values, or may express a limit in terms of not impacting other beneficial uses. An adverse effect or impact on a beneficial use occurs where there is an actual or threatened loss or impairment of that beneficial use.

OCEAN WATERS (Amended by Resolution No. 97-20, April 18, 1997)

Water quality objectives specified in the "Water Quality Control Plan for Ocean Waters of California" (Ocean Plan) and the "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" (Thermal Plan) are incorporated into this Basin Plan by reference. The provisions of the Ocean Plan and Thermal Plan apply to the ocean waters within this Region. **(End of Resolution No. 97-20)**

ENCLOSED BAYS AND ESTUARIES

"Enclosed bays" means indentations along the coast which enclose an area of oceanic water within distinct headlands or harbor works. "Estuaries" means waters, including coastal lagoons, located at the mouths of steams which serve as areas of mixing for fresh and ocean waters. Enclosed bays and estuaries do not include ocean waters or inland surface waters (see definition in the Inland Surface Waters section).

The objectives which are included below apply to all enclosed bays and estuaries within the region. In addition to these parameter-specific objectives, the following narrative objective shall apply:

Enclosed bay and estuarine communities and populations, including vertebrate, invertebrate, and plant species, shall not be degraded as a result of the discharge of waste. Degradation is damage to an aquatic community or population with the result that a balanced community no longer exists. A balance community is one that is (1) diverse, (2) has the ability to sustain itself through cyclic seasonal changes, (3) includes necessary food chain species, and (4) is not dominated by pollution-tolerant

species, unless that domination is caused by physical habitat limitations. A balanced community also (5) may include historically introduced non-native species, but (6) does not include species present because best available technology has not been implemented, or (7) because site-specific objectives have been adopted, or (8) because of thermal discharges.

Algae

Excessive growth of algae and/or other aquatic plants can degrade water quality. Algal blooms sometimes occur naturally, but they are often the result of excess nutrients (***i.e.,*** nitrogen, phosphorus) from waste discharges or nonpoint sources. These blooms can lead to problems with tastes, odors, color, and increased turbidity and can depress the dissolved oxygen content of the water, leading to fish kills. Floating algal scum and algal mats are also an aesthetically unpleasant nuisance.

Waste discharges shall not contribute to excessive algal growth in receiving waters.

Bacteria, Coliform

Fecal bacteria are part of the intestinal flora of warm-blooded animals. Their presence in bay and estuarine waters is an indicator of pollution. Total coliform is measured in terms of the number of coliform organisms per unit volume. Total coliform numbers can include non-fecal bacteria, so additional testing is often done to confirm the presence and numbers of fecal coliform bacterial. Water quality objectives for numbers of total and fecal coliform vary with the uses of the water, as shown below.

Bays and Estuaries

REC-1 ***Fecal coliform: log mean less than 200 organisms/100 mL based on five or more samples/30 day period, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period.***

SHEL ***Fecal coliform: median concentration not more than 14 MPN (most probable number)/100 ml and not more than 10% of samples exceed 43 mpn / 100 mL***

Chlorine, Residual

Wastewater disinfection with chlorine usually produces a chlorine residual. Chlorine and its reaction products are toxic to aquatic life.

To protect aquatic life, the chlorine residual in wastewater discharged to enclosed bays and estuaries shall not exceed 0.1 mg/L.

Color

Color in water may arise naturally, such as from minerals, plant matter or algae, or may be caused by industrial pollutants. Color is primarily an aesthetic consideration.

Waste discharges shall not result in coloration of the receiving waters which causes a nuisance or adversely affects beneficial uses. The natural color of fish, shellfish or other bay and estuarine water resources used for human consumption shall not be impaired.

Floatables
Floatables are an aesthetic nuisance as well as a substrate for algae and insect vectors.

Waste discharges shall not contain floating materials, including solids, liquids, foam or scum, which cause a nuisance or adversely affect beneficial uses.

Oil and Grease
Oil and grease can be present in water as a result of the discharge of treated wastes and the accidental or intentional dumping of wastes into sinks and storm drains. Oils and related materials have a high surface tension and are not soluble in water, therefore forming a film on the water's surface. This film can result in nuisance conditions because of odors and visual impacts. Oil and grease can coat birds and aquatic organisms, adversely affecting respiration and/or thermoregulation.

Waste discharges shall not result in deposition of oil, grease, wax or other materials in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance or adversely affect beneficial uses.

Oxygen, Dissolved
Adequate dissolved oxygen (D.O.) is vital for aquatic life. Depression of D.O. levels can lead to fish kills and odors resulting from anaerobic decomposition. Dissolved oxygen content in water is a function of water temperature and salinity.

The dissolved oxygen content of enclosed bays and estuaries shall not be depressed to levels that adversely affect beneficial uses as a result of controllable water quality factors.

pH
pH is a measure of the hydrogen ion concentration of water. pH values generally range from 0 (most acidic) to 14 (most alkaline). Many pollutants can alter the pH, raising or lowering it excessively. These extremes in pH can have adverse effects on aquatic biota and can corrode pipes and concrete. Even small changes in pH can harm aquatic biota.

The pH of bay or estuary waters shall not be raised above 8.6 or depressed below 7.0 as a result of controllable water quality factors; ambient pH levels shall not be changed more than 0.2 units.

Radioactivity

Radioactive materials shall not be present in the bay or estuarine waters of the region in concentrations which are deleterious to human, plant or animal life.

Solids, Suspended and Settleable

Settleable solids are deleterious to benthic organisms and may cause anaerobic conditions to form. Suspended solids can clog fish gills and interfere with respiration in aquatic fauna. They also screen out light, hindering photosynthesis and normal aquatic plant growth and development.

Enclosed bays and estuaries shall not contain suspended or settleable solids in amounts which cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.

Sulfides

Sulfides are generated by many industries and from the anaerobic decomposition of organic matter. In water, sulfides can react to form hydrogen sulfide (H_2S), commonly known for its "rotten egg" odor. Sulfides in ionic form are also toxic to fish.

The dissolved sulfide content of enclosed bays and estuaries shall not be increased as a result of controllable water quality factors.

Surfactants (surface-active agents)

This group of materials includes detergents, wetting agents, and emulsifiers.

Waste discharges shall not contain concentrations of surfactants which result in foam in the course of flow or the use of the receiving water, or which adversely affect aquatic life.

Taste and Odor

Undesirable tastes and odors in water may be a nuisance and may indicate the presence of a pollutant(s).

The enclosed bays and estuaries of the region shall not contain, as a result of controllable water quality factors, taste- or odor-producing substances at concentrations which cause a nuisance or adversely affect beneficial uses. The natural taste and odor of fish, shellfish or other enclosed bay and estuarine water resources used for human consumption shall not be impaired.

Temperature

Waste discharges can cause temperature changes in the receiving waters which adversely affect the aquatic biota. Discharges most likely to cause these temperature effects are cooling tower and heat exchanger blowdown.

All bay and estuary waters shall meet the objective specified in the Thermal Plan.

Toxic Substances

Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to level which are harmful to human health.

The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.

Turbidity

Turbidity is a measure of light scattered due to particulates in water.

Increases in turbidity which result from controllable water quality factors shall comply with the following:

Natural Turbidity	***Maximum Increase***
0-50 NTU	***20%***
50-100 NTU	***10 NTU***
Greater than 100 NTU	***10%***

All enclosed bay and estuaries of the region shall be free of changes in turbidity which adversely affect beneficial uses.

INLAND SURFACE WATERS

Inland surface waters include streams, rivers, lakes, and wetlands in the Region. Ocean waters and enclosed bays and estuaries are not considered inland surface waters.

The narrative objectives which are included below apply to all inland surface waters within the region, including lakes, streams, and wetlands. In addition, specific numerical objectives are listed in Table 4-1. Where more than one objective is applicable, the stricter shall apply. In addition to these objectives, the following shall apply:

Inland surface water communities and populations, including vertebrate, invertebrate, and plant species, shall not be degraded as a result of the discharge of waste. Degradation is damage to an aquatic community or population with the result that balanced community no longer exists. A balanced community is one that is (1) diverse, (2) has the ability to sustain itself through cyclic seasonal changes, (3) includes necessary food chain species, and (4) is not dominated by pollution-tolerant species, unless that domination is caused by physical habitat limitations. A balanced community also (5) may include historically introduced non-native species, but (6) does not include species present because best available technology has not been

implemented, or (7) because site-specific objectives have been adopted, or (8) because of thermal discharges.

Algae

Excessive growth of algae and/or other aquatic plants can degrade water quality. Algal blooms sometimes occur naturally, but they are often the result of excess nutrients (***i.e.,*** nitrogen, phosphorous) from waste discharges or nonpoint sources. These blooms can lead to problems with tastes, odors, color, and increased turbidity and can depress the dissolved oxygen content of the water, leading to fish kills. Floating algal scum and algal mats are also an aesthetically unpleasant nuisance.

Waste discharges shall not contribute to excessive algal growth in inland surface receiving waters.

Ammonia, Un-ionized

Un-ionized ammonia (NH_3, or UIA) is toxic to fish and other aquatic organisms. In water, UIA exists in equilibrium with ammonium (NH_4+) and hydroxide (OH) ions. The proportions of each change as the temperature, pH, and salinity of the water change.

The 1983 Basin Plan specified an UIA objective of 0.8 mg/L for waterbodies designated **WARM**. The SWRCB directed the Regional Board to review the 0.8 mg/L objective because of concerns that it is not stringent enough to protect aquatic wildlife. The USEPA concurred that this review was necessary.

The Regional Board contracted with California State University, Fullerton to conduct a study of un-ionized ammonia in the Santa Ana River and to develop recommendations regarding the UIA objective. This study, which was conducted in 1985-87, was complemented by additional Regional Board staff analysis. The additional staff analysis focused on adjusting EPA's national criteria for **WARM** waters (published in 1984 and amended in 1992), using the recalculation procedure. With this procedure, cold and warmwater species not found in the Santa Ana Region's **WARM** designated waters were deleted from the database used to derive the national criteria, and new criteria were calculated.

Based on these analyses, this Plan specifies UIA objectives for **WARM** and **COLD** designated waterbodies in the Region. **Note:** site-specific objectives have been developed for the Santa Ana River and certain tributaries (see next page).

Acute (1-hour) UIA-N Objectives

For waterbodies designed **COLD**:

Objective = 0.822 [0.52/FT/FPH/2], where

$FT = 10^{(0.03(20-T))}$ $0 \leq T \leq 20°C$

$FT = 1$ $20 \leq T \leq 30°C$

$$FPH = \frac{1+10^{(7.4-pH)}}{1.25} \quad 6.5 \le pH \le 8$$

$$FPH = 1 \quad 8 \le pH \le 9$$

For waterbodies designated **WARM**:
Objective = 0.822[0.87/FT/FPH/2], where

$$FT = 10^{(0.03(20-T))} \quad 0 \le T \le 25°C$$

$$FT = 0.7079 \quad 25 \le T \le 30°C$$

$$FPH = \frac{1+10^{(7.4-pH)}}{1.25} \quad 6.5 \le pH \le 8$$

$$FPH = 1 \quad 8 \le pH \le 9$$

Chronic (4-day) UIA-N Objectives
For waterbodies designated **COLD**:
Objective = 0.822[0.52/FT/FPH/RATIO], where

$$FT = 10^{(0.03(20-T))} \quad 0 \le T \le 15°C$$

$$FT = 1.4125 \quad 15 \le T \le 30°C$$

$$FPH = \frac{1+10^{(7.4-pH)}}{1.25} \quad 6.5 \le pH \le 8$$

$$FPH = 1 \quad 8 \le pH \le 9$$

$$RATIO = \frac{24[10^{(7.7-pH)}]}{1+10^{(7.4-pH)}} \quad 6.5 \le pH \le 7.7$$

$$RATIO = 13.5 \quad 7.7 \le pH \le 9$$

For waterbodies designed **WARM**:
Objective = 0.822[0.87/FT/FPH/RATIO], where

$$FT = 10^{(0.03(20-T))} \quad 0 \le T \le 20°C$$

$$FT = 1 \quad 20 \le T \le 30°C$$

$$FPH = \frac{1+10^{(7.4-pH)}}{1.25} \quad 6.5 \le pH \le 8$$

$$FPH = 1 \quad 8 \le pH \le 9$$

$$RATIO = \frac{24[10^{(7.7-pH)}]}{1+10^{(7.4-pH)}} \quad 6.5 \le pH \le 7.7$$

$$RATIO = 13.5 \quad 7.7 \le pH \le 9$$

Calculated numerical UIA-N objectives as well as corresponding total ammonia nitrogen concentration for various pH and temperature conditions are shown in Tables 4-2 and 4-3. Table 4-4 lists the above equations in a form that can be entered into a computer or calculator program.

Site-specific Un-ionized Ammonia Objective for the Santa Ana River System

In addition to the un-ionized ammonia (UIA) objectives specified above, this Plan includes a chronic (4-day) site-specific UIA objective for the middle Santa Ana River, Chino Creek, Mill Creek (Prado Area), Temescal Creek, and San Timoteo Creek. This site-specific objective is based on carefully controlled chronic toxicity tests on Santa Ana River water conducted as part of the Santa Ana River Use-Attainability Analysis Study. The Santa Ana River water was spiked with UIA concentrations ranging from 0.0 (control) to 1.0 mg/L. The No Observed Effect Level (NOEL) was found to be at a UIA concentration of 0.24 mg/L (or 0.19 mg/L as UIA-nitrogen). Using a 50% safety factor, the UIA objective developed is 0.12 mg/L (or 0.098 mg/L UIA-nitrogen).

To prevent chronic toxicity to aquatic life in the Santa Ana River, Reaches 2, 3, and 4, Chino Creek, Mill Creek (Prado Area), Temescal Creek and San Timoteo Creek, discharges to these waterbodies shall not cause the concentration of un-ionized ammonia (as nitrogen) to exceed 0.098 mg/L) (NH_3-N) as a 4-day average.

Bacteria, Coliform

Fecal bacteria are part of the intestinal flora of warm-blooded animals. Their presence in surface waters is an indicator of pollution. Total coliform is measured in terms of the number of coliform organisms per unit volume. Total coliform numbers can include non-fecal bacteria, so additional testing is often done to confirm the presence and numbers of fecal coliform bacteria. Water quality objectives for numbers of total and fecal coliform vary with the uses of the water, as shown below.

Lakes and Streams

MUN ***Total coliform: less than 100 organisms/100 mL***

REC-1 ***Fecal coliform: log mean less than 200 organisms/100 mL based on five or more samples/30 day period, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period***

REC-2 ***Fecal coliform: average less than 2000 organisms/100 mL and not more than 10% of samples exceed 4000 organisms/100 mL for any 30-day period***

Boron
Boron is not considered a problem in drinking water supplies until concentrations of 20-30 mg/L are reached. In irrigation, boron is an essential element. However, boron concentrations in excess of 0.75 mg/L may be deleterious to certain crops, particularly citrus. The maximum safe concentration of even the most tolerant plants is about 4.0mg/L of boron.

Boron concentrations shall not exceed 0.75 mg/L in inland surface waters of the region as a result of controllable water quality factors.

Chemical Oxygen Demand (COD)
COD is a measure of the total amount of oxidizable material present in a sample, including stable organic materials which are not measured by the BOD test.

Waste discharges shall not result in increases in COD levels in inland surface waters which exceed the values shown in Table 4-1 or which adversely affect beneficial uses.

Chloride
Excess chloride concentrations lead primarily to economic damage rather than public health hazards. Chlorides are considered to be among the most troublesome anions in water used for industrial or irrigation purposes since they significantly affect the corrosion rate of steel and aluminum and can be toxic to plants. A safe value for irrigation is considered to be less than 175 mg/L of chloride. Excess chlorides affect the taste of potable water, so drinking water standards are generally based on potability rather than on health. The secondary drinking water standard for chloride is 500 mg/L.

The chloride objectives listed in Table 4-1 shall not be exceeded as a result of controllable water quality factors.

Chlorine, Residual
Wastewater disinfection with chlorine usually produces a chlorine residual. Chlorine and its reaction products are toxic to aquatic life.

To protect aquatic life, the chlorine residual in wastewater discharged to inland surface waters shall not exceed 0.1 mg/L.

Color
Color in water may arise naturally, such as from minerals, plant matter, or algae, or may be caused by industrial pollutants. Color is primarily an aesthetic consideration, although it can discolor clothes and food. The secondary drinking water standard for color is 15 color units.

Waste discharges shall not result in coloration of the receiving waters which causes a nuisance or adversely affect beneficial uses. The natural color of fish, shellfish or other inland surface water resources used for human consumption shall not be impaired.

Dissolved Solids, Total (Total Filtrable Residue)
The department of Health Services recommends that the concentration of total dissolved solids (TDS) in drinking water be limited to 1000 mg/L (secondary drinking water standard) due to taste considerations. For most irrigation uses, water should have a TDS concentration under 700mg/L. Quality-related consumer cost analyses have indicated that a benefit to consumers exist if water is supplied at or below 500mg/L TDS.

The dissolved mineral content of the waters of the region, as measured by the total dissolved solids test ("Standard Methods for the Examination of Water and Wastewater, 16th Ed.," 1985: 209B (180˚C), p. 95), shall not exceed the specific objectives listed in Table 4-1 as a result of controllable water quality factors.

Filtrable Residue, Total
See Dissolved Solids, Total

Floatables
Floatables are an aesthetic nuisance as well as a substrate for algae and insect vectors.

Waste discharges shall not contain floating materials, including solids, liquids, foam or scum, which cause a nuisance or adversely affect beneficial uses.

Fluoride
Fluoride in water supply used for industrial or irrigation purposes has certain detrimental effects. Fluoride in optimum concentrations in water supply (concentrations dependent upon the mean annual air temperature) is considered beneficial for preventing dental caries, but concentrations above approximately 1 mg/L, or its equivalent at a given temperature, are considered likely to increase the risk of occurrence of dental fluorosis.

Fluoride concentrations shall not exceed values specified in the table below in inland surface waters designated* MUN *as a result of controllable water quality factors.

Annual Average of Maximum Optimum Fluoride

Daily Air Temperature (˚C)	Concentration (mg/L)
12.0 and below	1.2
12.1 to 14.6	1.1
14.7 to 17.6	1.0
17.7 to 21.4	0.9
21.5 to 26.2	0.8
26.3 to 32.5	0.7

Hardness (as $CaCO_3$)
The major detrimental effect of hardness is economic. Any concentration (reported as mg/L $CaCO_3$) greater than 100mg/L results in the increased use of soap, scale buildup in utensils, in domestic uses, and in plumbing. Hardness in industrial cooling waters is generally objectionable above 50mg/L.

The objectives listed in Table 4-1 shall not be exceeded as a result of controllable water quality factors. If no hardness objective is listed in Table 4-1, the hardness of receiving waters used for municipal supply (MUN) shall not be increased as a result of waste discharges to levels that adversely affect beneficial uses.

Inorganic Nitrogen, Total
see Nitrogen, Total Inorganic

Metals
Metals can be toxic to human and animal life.

In 1990, the Environmental Protection Agency (EPA) placed the Santa Ana River, reaches 2, 3, and 4, and Chino Creek on the §304(1) list of "Waters Not Meeting Applicable Water Quality Standards" based on its review of data on certain metals in POTW discharges to the River.

The Santa Ana River dischargers and the Regional Board disagreed with and objected to EPA's §304(1) designation. To demonstrate whether or not the §304(1) designation is correct and what effects, if any, heavy metal levels may have on aquatic life in the Region, the Santa Ana River Dischargers Association and the Santa Ana Watershed Project Authority agreed to conduct a Use-Attainability Analysis (UAA).

The purpose of a Use-Attainability Analysis is to evaluate the "physical, biological, chemical, and hydrological conditions of a river to determine what specific beneficial uses the waterbody can support." If local conditions preclude full attainment of an aquatic life beneficial use for reasons unrelated to water quality, federal and state authorities may allow variances from the generic water quality criteria.

The UAA began in February 1991 and concluded in March 1992. It provided detailed information on chemical, biological, and hydrologic conditions in the middle Santa Ana River aquatic system. Conclusions and recommendations were presented to the Board in June 1992. The information presented is reflected in the Santa Ana River discussion in Chapter 1 and in the new **LWRM** Beneficial Use designation (Chapter 3). Data provided by the UAA was also used to support the adoption of site-specific objectives for three metals, cadmium (Cd), copper (Cu), and lead (Pb) for the Santa Ana River (Reaches 2, 3, and 4) and the perennial portions of some tributaries (including Chino Creek, Cucamonga/Mill Creek, Temescal Creek, and creeks in the Riverside Narrows area).

In adopting these SSOs the Regional Board found (RWQCB Resolution No. 94-1) that:

a. The Site-Specific Water Quality Objectives (SSOs) will protect the beneficial uses of the Santa Ana River.

b. The SSOs are conservative.

c. The SSOs, which represent higher quality than presently exists, will not result in degradation of water quality.

d. Existing levels of cadmium, copper, and lead in the Santa Ana River do not contribute to toxicity in the Santa Ana River.

The toxicity of these metals varies with water hardness. No fixed hardness value is assumed; objectives are calculated using the hardness of the collected sample.

The following equations represent the SSOs which apply to these waterbodies. These SSOs are expressed as the dissolved form of the metals.

SSO ***for cadmium***:

$$\text{Cd SSO} = 0.85[e^{(0.7852*\ln(TH)-3.490)}]$$

SSO for Copper

$$\text{Cu SSO} = 0.85[e^{(0.8545*\ln(TH)-1.465)}]$$

SSO for lead

$$\text{Pb SSO} = 0.25\ [e^{(1.237*\ln(TH)-3.958)}]$$

where TH is the total hardness (as $CaCO_3$) in mg/L.

The SSOs for cadmium and copper are simply the hardness-dependent formulas for calculating the objective (national criteria), corrected by the dissolved-to-total (metal) ratio. The SSO for lead is the recalculated* hardness-dependant formula, corrected by the dissolved-to-total ratio.

*****Recalculation for lead was carried out by EPA-Region IX, using the lowest genus mean acute value (GMAV) as the final acute value (FAV) and an acute-to chronic ratio (ACR) of 51.29, resulting in a final chronic value (FCV) of 2.78 and the SSO formula already shown.

The Table below shows the site-specific objectives for cadmium, copper, and lead that would apply to a water sample with 200 mg/L total hardness (as $CaCO_3$).

Metal	Calculated WQO	Recalculated Value	EPA Correction Factor	SSO
Cd	2.0	NA	0.85	1.7
Cu	21.4	NA	0.85	18.2
Pb	7.7	16.2	0.25	4.1

Toxicity testing performed as part of the Santa Ana River Use-Attainability Analysis (UAA) has demonstrated that the levels of dissolved metal shown below are safe and non-toxic in Santa Ana River water.

Cadmium	4 µg/L
Copper	37 µg/L
Lead	28 µg/L

There is also evidence that levels as much as 100% higher than those shown above do not result in chronic toxicity.

Methylene Blue-Activated Substances (MBAS)
The MBAS test is sensitive to the presence of detergents (see surfactants). Positive results may indicate the presence of wastewater. The secondary drinking water standard for MBAS is 0.05 mg/L.

MBAS concentrations shall not exceed 0.05mg/L I inland surface waters designated MUN as a result of controllable water quality factors.

Nitrate
High nitrate concentrations in domestic water supplies can be toxic to human life. Infants are particularly susceptible and may develop methemoglobinemia (blue baby syndrome). The primary drinking water standard for nitrate (as NO_3) is 45 mg/L or 10 mg/L (as N) in inland surface waters designated MUN as a result of controllable water quality factors.

Nitrate-nitrogen concentrations shall not exceed 45 mg/L (as NO_3) or 10 mg/L (as N) in inland surface waters designated MUN as a result of controllable water quality factors.

Nitrogen, Total Inorganic
The objectives listed in Table 4-1 shall not be exceeded as a result of controllable water quality factors.

Oil and Grease

Oil and grease can be present in water as a result of the discharge of treated wastes and the accidental or intentional dumping of wastes into sinks and storm drains. Oils and related materials have a high surface tension and are not soluble in water, therefore forming a film on the water's surface. This film can result in nuisance conditions because of odors and visual impacts. Oil and grease can coat birds and aquatic organisms, adversely affecting respiration and/or thermoregulation.

Waste discharges shall not result in deposition of oil, grease, wax, or other material in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance or adversely affect beneficial uses.

Oxygen, Dissolved

Adequate dissolved oxygen (D.O.) is vital for aquatic life. Depression of D.O. levels can lead to fish kills and odors resulting from anaerobic decomposition. Dissolved oxygen content in water is a function of water temperature and salinity.

The dissolved oxygen content of surface waters shall not be depressed below 5mg/L for waters designated WARM, or 6mg/L for waters designated COLD, as a result of controllable water quality factors. In addition, waste discharges shall not cause the median dissolved oxygen concentration to fall below 85% of saturation or the 95th percentile concentration or fall below 75% of saturation within a 30-day period.

pH

pH is a measure of the hydrogen ion concentration of water. pH values generally range from 0 (most acidic) to 14 (most alkaline). Many pollutants can alter the pH, raising or lowering it excessively. These extremes in pH can have adverse effects on aquatic biota and can corrode pipes and concrete. Even small changes in pH can harm aquatic biota.

The pH of inland surface waters shall not be raised above 8.5 or depressed below 6.5 as a result of controllable water quality factors.

Radioactivity

Radioactivity materials shall not be present in the waters of the region in concentrations which are deleterious to human, plant or animal life. Waters designated MUN shall meet the limits specified in the California Code of Regulations, Title 22, and listed here:

Combined Radium-226 and Radium-228	***5***	***pCi/L***
Gross Alpha particle activity	***15***	***pCi/L***
Tritium	***20,000***	***pCi/L***
Strontium-90	***8***	***pCi/L***
Gross Beta particle activity	***50***	***pCi/L***
Uranium	***20***	***pCi/L***

Sodium

The presence of sodium in drinking water may be harmful to persons suffering from cardiac, renal, and circulatory diseases. It can contribute to taste effects, with the taste threshold depending on the specific sodium salt. Excess concentrations of sodium in irrigation water reduce soil permeability to water and air. The deterioration of soil quality because of the presence of sodium in irrigation water is cumulative and is accelerated by poor drainage.

The sodium objectives listed in Table 4-1 shall not be exceeded as a result of controllable water quality factors.

Solids, Suspended and Settleable

Settleable solids are deleterious to benthic organisms and may cause anaerobic conditions to form. Suspended solids can clog fish gill and interfere with respiration in aquatic fauna. They also screen out light, hindering photosynthesis and normal aquatic plant growth and development.

Inland surface waters shall not contain suspended or settleable solids in amounts which cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.

Sulfate

Excessive sulfate, particularly magnesium sulfate ($MgSO_4$) in potable waters can lead to laxative effects, but this effect is temporary. There is some taste effect from magnesium sulfate in the range of 400-600 mg/L as $MgSO_4$. The secondary drinking water standard for sulfate is 500 mg/L. Sulfate concentrations in waters native to this region are normally low, less than 40 mg/L, but imported Colorado River water contains approximately 300 mg/L of sulfate.

The objectives listed in Table 4-1 shall not be exceeded as a result of controllable water quality factors.

Sulfides

Sulfides are generated by many industries and from the anaerobic decomposition of organic matter. In water, sulfides can react to form hydrogen sulfide (H_2S), commonly known for its “rotten egg” odor. Sulfides in ionic form are also toxic to fish.

The dissolved sulfide content of inland surface waters shall not be increased as a result of controllable water quality factors.

Surfactants (surface-active agents)
This group of materials includes detergents, wetting agents, and emulsifiers. See also Methylene Blue-Activated Substances (MBAS).

Waste discharges shall not contain concentrations of surfactants which result in foam in the course of flow or use of the receiving water, or which adversely affect aquatic life.

Taste and Odor
Undesirable tastes and odors in water may be a nuisance and may indicate the presence of a pollutant(s). The secondary drinking water standard for odor (threshold) is about 3 odor units.

The inland surface waters of the region shall not contain, as a result of controllable water quality factors, taste- or odor-producing substances at concentrations which cause a nuisance or adversely affect beneficial uses. The natural taste and odor of fish, shellfish or other regional inland surface water resources used for human consumption shall not be impaired.

Temperature
Waste discharges can cause temperature changes in the receiving waters which adversely affect the aquatic biota. Discharges most likely to cause these temperature effects are cooling tower and heat exchanger blowdown.

The natural receiving water temperature of inland surface waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses. The temperature of waters designated COLD shall not be increased by more than 5˚F as a result of controllable water quality factors. The temperature of waters designated WARM shall not be raised above 90˚F June through October or above 78˚F during the rest of the year as a result of controllable water quality factors. Lake temperatures shall not be raised more than 4˚F above established normal values as a result of controllable water quality factors.

Total Dissolved Solids
See Dissolved Solids, Total

Total Filtrable Residue
See Dissolved Solids, Total

Total Inorganic Nitrogen
See Nitrogen, Total Inorganic

Toxic Substances
Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health.

The concentrations of contaminants in waters which are existing or potential sources of drinking water shall not occur at levels that are harmful to human health.

The concentrations of toxic pollutants in the water column, sediments or biota shall not adversely affect beneficial uses.

Turbidity
Turbidity is a measure of light scattered due to particulates in water. The secondary drinking water standard for turbidity is 5 NTU (nephelometric turbidity units).

Increases in turbidity which result from controllable water quality factors shall comply with the following:

Natural Turbidity	***Maximum Increase***
0-5 NTU	20%
50-100 NTU	10 NTU
Greater than 100 NTU	10%

All inland surface waters of the region shall be free of changes in turbidity which adversely affect beneficial uses.

GROUNDWATERS

The narrative objectives that are included below apply to all groundwaters, as noted. In addition, specific numerical objectives are listed in Table 4-1. With the exception of the "maximum benefit" objective identified in this Table (see further discussion below and in Chapter 5), where more than one objective is applicable, the stricter shall apply.

Arsenic
Arsenic concentrations shall not exceed 0.05 mg/L in groundwater designated MUN as a result of controllable water quality factors.

Bacteria, Coliform
Fecal bacteria are part of the intestinal flora of warm-blooded animals. The presence in groundwater is an indicator of pollution. Total coliform is measured in terms of the number of coliform organisms per unit volume. Total coliform numbers can include non-fecal bacteria, so additional testing is often done to confirm the presence and numbers of fecal coliform bacteria. Water quality objectives for numbers of total fecal coliform vary with the uses of the water, as shown below.

Total coliform numbers shall not exceed 2.2 organism/100 mL median over any seven-day period in groundwaters designated MUN as a result of controllable water quality factors.

Barium

Barium concentrations shall not exceed 1.0mg/L in groundwaters designated MUN as a result of controllable water quality factors.

Boron

Boron is not considered a problem in drinking water supplies until concentrations of 20-30 mg/L are reached. In irrigation, boron is an essential element. However, boron concentrations in excess of 0.75 mg/L may be deleterious to certain crops, particularly citrus. The maximum safe concentration of even the most tolerant plants is about 4.0 mg/L of boron.

Boron concentrations shall not exceed 0.75 mg/L in groundwaters of the region as a result of controllable water quality factors.

Chloride

Excess chloride concentrations lead primarily to economic damage rather than public health hazards. Chlorides are considered to be among the most troublesome anion in water used for industrial or irrigation purposes since they significantly affect the corrosion rate of steel and aluminum and can be toxic to plants. A safe value for irrigation is considered to be less than 175 mg/L of chloride. Excess chlorides affect the taste of potable water, so drinking water standards are generally based on potability rather than on health. The secondary maximum contaminant level range - upper for chloride is 500 mg/L (CCR, Division 4, Chapter 15, Article 16, § 64449).

Chloride concentrations shall not exceed 500 mg/L in groundwaters of the region designated MUN as a result of controllable water quality factors.

Color

Color in water may arise naturally, such as from minerals, plant matter or algae, or may be caused by industrial pollutants. Color is primarily an aesthetic consideration, although it can discolor clothes and food. The secondary drinking water standard for color is 15 color units.

Waste discharges shall not result in coloration of the receiving waters which causes a nuisance or adversely affects beneficial uses.

Cyanide

Cyanide concentrations shall not exceed 0.2mg/L in groundwaters designated MUN as a result of controllable water quality factors.

Dissolved Solids, Total (Total Filtrable Residue)

The Department of Health Services recommends that the concentration of total dissolved solids (TDS) in drinking water be limited to 500 mg/L (secondary maximum contaminant level) (CCR, Division 4, Chapter 15, Article 16, § 64449), due to taste considerations. For most irrigation uses, water should have a TDS concentration under 700 mg/L. Quality-related consumer cost analyses have indicated that a benefit to consumers exists if water is supplied at or below 500 mg/L TDS[2].

The dissolved mineral content of the waters of the region, as measured by the total dissolved solids test ("Standard Methods for the Examination of Water and Wastewater, 20th Ed.," 1998: 2540C (180˚C), p.2-56), shall not exceed the specific objectives listed in Table 4-1 as a result of controllable water quality factors. (See also discussion of management zone TDS and nitrate nitrogen water quality objectives).

Filtrable Residue, Total
See Dissolved Solids, Total

Fluoride
Fluoride in water supply used for industrial or irrigation purposes has certain detrimental effects. Fluoride in optimum concentrations in water supply (concentration dependent upon the mean annual air temperature) is considered beneficial for preventing dental caries, but concentrations above approximately 1 mg/L, or its equivalent at a given temperature, are considered likely to increase the risk of occurrence of dental fluorosis.

Fluoride concentrations shall not exceed 1.0 mg/L in groundwaters designated MUN as a result of controllable water quality factors.

Hardness (as $CaCO_3$)
The major detrimental effect of hardness is economic. Any concentration (reported as mg/L $CaCO_3$) greater than 100mg/L results in the increased use of soap, scale buildup in utensils in domestic uses, and in plumbing. Hardness in industrial cooling waters is generally objectionable above 50 mg/L.

The hardness of receiving waters used for municipal supply (MUN) shall not be increased as a result of waste discharges to levels that adversely affect beneficial uses.

Metals
Metals can be toxic to human and animal life.

Metals concentrations shall not exceed the values listed below in groundwaters designated MUN as a result of controllable water quality factors.

[2] These TDS values are noted for information purposes only. For some management zones, the historic ambient quality, on which the TDS objectives are largely based (see also discussion of maximum benefit objectives for specific management zones), exceeds these recommended levels.

Metal	***Concentration (mg/L)***
Cadmium	0.01
Chromium	0.05
Cobalt	0.2
Copper	1.0
Iron	0.3
Lead	0.05
Manganese	0.05
Mercury	0.002
Selenium	0.01
Silver	0.05

Methylene Blue-Activated Substances (MBAS)
The MBAS test is sensitive to the presence of detergents (see surfactants in inland surface waters discussion). Positive results may indicate the presence of wastewater. The secondary drinking water standard for MBAS is 0.05 mg/L.

MBAS concentrations shall not exceed 0.05 mg/L in groundwaters designated MUN as a result of controllable water quality factors.

Nitrate
High nitrate concentrations in domestic water supplies can be toxic to human life. Infants are particularly susceptible and may develop methemoglobinemia (blue baby syndrome). The primary drinking water standard for nitrate (as NO_3) is 45 mg/L or 10 mg/L (as N).

Nitrate-nitrogen concentrations listed in Table 4-1 shall not be exceeded as a result of controllable water quality factors. (See also discussion of management zone TDS and nitrate nitrogen water quality objectives below).

Oil and Grease
Oil and grease can be present in water as a result of the discharge of treated wastes and the accidental or intentional dumping of wastes into sinks and storm drains. Oils and related materials have a high surface tension and are not soluble in water, therefore forming a film on the water's surface. This film can result in nuisance conditions because of odors and visual impacts.

Waste discharges shall not result in deposition of oil, grease, wax or other materials in concentrations which cause a nuisance or adversely affect beneficial uses.

pH
pH is a measure of the hydrogen ion concentration of water. pH values generally range from 0 (most acidic) to 14 (most alkaline). Many pollutants can alter the pH,

raising or lowering it excessively. These extremes in pH can corrode pipes and concrete.

The pH of groundwater shall not be raised above 9 or depressed below 6 as a result of controllable water quality factors.

Radioactivity

*Radioactive materials shall not be present in the waters of the region in concentrations which are deleterious to human, plant or animal life. Groundwaters designated **MUN** shall meet the limits specified in the California Code of Regulations, Title 22, and listed here:*

Combined Radium-226 and Radium-228	*5*	*pCi/L*
Gross Alpha particle activity	*15*	*pCi/L*
Tritium	*20,000*	*pCi/L*
Strontium-90	*8*	*pCi/L*
Gross Beta particle activity	*50*	*pCi/L*
Uranium	*20*	*pCi/L*

Sodium

The presence of sodium in drinking water may be harmful to persons suffering from cardiac, renal and circulatory diseases. It can contribute to taste effects, with the taste threshold depending on the specific sodium salt (US Geological Survey, Resources Agency of California – State Water Resources Control Board). Excess concentrations of sodium in irrigation water reduce soil permeability to water and air. The deterioration of soil quality because of the presence of sodium in irrigation water is cumulative and is accelerated by poor drainage (California State Water Resources Control Board).

The California Department of Health Services and the U.S. Environmental Protection Agency have not provided a limit on the concentration of sodium in drinking water. Sodium concentrations shall not exceed 180 mg/L in groundwaters designated MUN as a result of controllable water quality factors.

Groundwaters designated AGR shall not exceed a sodium absorption ration (SAR[3]) of 9 as a result of controllable water quality factors.

[3] Sodium absorption ratio (SAR)= $\dfrac{Na}{\left[\frac{1}{2}(Ca + Mg)\right]^{1/2}}$

where Sodium (Na), Calcium (Ca) and Magnesium (Mg) are concentrations in milliequivalents per liter

Sulfate

Excessive sulfate, particularly magnesium sulfate ($MgSO_4$) in potable waters can lead to laxative effects, but this effect is temporary. There is some taste effect from magnesium sulfate in the range of 400-600mg/L as MgSO4. The secondary drinking water standard for sulfate is 500mg/L (CCR, Division 4, Chapter 15, Article 16, §64449). Sulfate concentrations in waters native to this region are normally low, less than 40mg/L, but imported Colorado River water contains approximately 300mg/L of sulfate.

Sulfate concentrations shall not exceed 500 mg/L in groundwaters of the region designated MUN as a result of controllable water quality factors.

Taste and Odor

Undesirable tastes and odors in water may be a nuisance and may indicate the presence of a pollutant(s). The secondary drinking water standard for odor (threshold) is 3 odor units.

The groundwaters of the region shall not contain, as a result of controllable water quality factors, taste- or odor-producing substances at concentrations which cause a nuisance or adversely affect beneficial uses.

Total Dissolved Solids

See Dissolved Solids, Total

Total Filtrable Residue

See Dissolved Solids, Total

Total Inorganic Nitrogen

See Nitrogen, Total Inorganic

Toxic Substances

All waters of the region shall be maintained free of substances in concentrations which are toxic, or that produce detrimental physiological responses in human, plant, animal or aquatic life.

Management Zone TDS and Nitrate-nitrogen Water Quality Objectives (Amended by Resolution No. R8-2004-0001, January 22, 2004)

The TDS and nitrate-nitrogen objectives specified in the 1975 and 1984 Basin Plans, and initially in this 1995 Basin Plan, were based on an evaluation of groundwater samples from the five year period 1968 through 1972. This period represented ambient quality at the time of preparation of the 1975 Basin Plan. As part of the 2004 update of the TDS/Nitrogen management plan in the Basin Plan, historical ambient quality was reviewed using additional data and rigorous statistical procedures. This update also included characterization of current water quality. A comprehensive description of the methodology employed is published in the “Final

Technical Memorandum for Phase 2A of the Nitrogen-TDS Study" (Wildermuth Environmental Inc., July 2000). This effort, coupled with "maximum benefit" demonstrations by certain agencies in the watershed (see further discussion below and in Chapter 5), culminated in the adoption of the TDS and nitrate-nitrogen objectives specified in Table 4-1.

For the most part, the TDS and nitrate-nitrogen water quality objectives for each management zone are based on historical concentrations of TDS and nitrate-nitrogen from 1954 through 1973 and are referred to herein as the "antidegradation" objectives. This period brackets 1968, when the State Board adopted the state's antidegradation policy in Resolution No. 68-16, "Policy with Respect to Maintaining High Quality Waters". This Resolution establishes a benchmark for assessing and considering authorization of degradation of water quality. The 20-year period was selected in order to ensure that at least 3 data points in each management zone would be available to calculate historical ambient quality. In general, the following steps were taken to calculate the TDS and nitrate objectives:

a. Annual average TDS and nitrate-nitrogen data from 1954 – 1973 for each well in a management zone were compiled;
b. For each well, the data were statistically analyzed. The mean plus "t" (Student's t) times the standard error of the mean was calculated;
c. A rectangular grid across all management zones was overlaid. Groundwater storage within each grid was computed; and,
d. The volume-weighted TDS and nitrate-nitrogen concentration for each management zone was computed. These concentrations are the calculated historical ambient quality for each zone. [4]

These volume-weighted TDS and nitrate-nitrogen concentrations for each management zone were typically identified as the appropriate objectives. However, it is important to note that if the calculated nitrate-nitrogen concentration exceeded 10 mg/L, the nitrate-nitrogen objective was set to 10 mg/L to be consistent with the primary drinking water standard, or to current ambient quality if less than 10 mg/L.

Finally, in some cases, certain agencies proposed alternative, less stringent TDS and nitrate-nitrogen objectives for specific management zones, based on additional consideration of antidegradation requirements and the factors specified in Water Code Section 13241 (see below and Chapter 5). Table 4-1 includes both the historical ambient quality TDS and nitrate-nitrogen objectives (the "antidegradation" objectives) and the objectives based on this additional consideration (the "maximum benefit"

[4] In limited cases, data for ammonia-nitrogen and nitrite-nitrogen as well as nitrate-nitrogen were available and included in the analysis. The ammonia-nitrogen and nitrite-nitrogen values were insignificant. The objectives are thus expressed as nitrate-nitrogen, even where ammonia-nitrogen and nitrite-nitrogen data were included in the analysis.

objectives) for specific management zones. Chapter 5 specifies detailed requirements noticed Public Hearing, the Regional Board finds that “maximum benefit” is not being demonstrated, then the “antidegradation” objectives apply for regulatory purposes.

THE SANTA ANA RIVER

Setting objectives for the flowing portions of the Santa Ana River is a significant feature of this Basin Plan. The River provides water for recreation and for aquatic and wildlife habitat. River flows are a significant source of groundwater recharges in lower basin, which provides domestic supplies for more than two million people. These flows account for about 70% of the total recharge.

The dividing line between reaches 2 and 3 of the River, and between the upper and lower Santa Ana Basins, is Prado Dam, a flood control facility built and operated by the U.S. Army Corps of Engineers. The dam includes a subsurface groundwater barrier, and as a result all ground and surface waters form the upper basin are forced to pass through the dam (or over the spillway). For this reason, it is an ideal place to measure flows and monitor water quality.

The Prado Settlement, a stipulated court judgement (Orange County Water District vs. City of Chino, ***et al***), which requires that a certain minimum amount of water be released each year from the upper basin, is overseen by the Santa Ana River Watermaster. The U.S. Geologic Survey (USGS) operates a permanent continuous monitoring station immediately below Prado Dam, and the data collected there are utilized by the Watermaster. Orange County Water District (OCWD) samples the river monthly at the USGS gage and determines the water quality. Compliance with the objective for reaches 2 and 3 is monitored by the Regional Board, using the data and information available from the USGS gage and these sources, plus the data from its own specific sampling programs. (see Chapter 6).

The quality of the Santa Ana River is a function of the quantity and quality of the various components of the flows. The two major components of total flow are storm flow and base flow. Storm flow is the water which results directly from rainfall (surface runoff) in the upper basin; it also includes the stormwater runoff form the San Jacinto Basin which may reach the River via Temescal Creek. Most storms occur during the winter rainy season (December through April). Base flow is composed of wastewater discharges, rising groundwater, and nonpoint source discharges. Wastewater discharges are the treated sewage effluents discharged by municipalities to the river and its tributaries. Rising groundwater occurs at a number of locations along the River, including the San Jacinto Fault, Riverside Narrows, and in or near the Prado flood Control Basin. Nonpoint source discharges include uncontrolled runoff from agricultural and urban areas which is not related to storm flows.

Nontributary flow is a third element of total flow. It is generally imported water released in the upper basin, for recharge in the lower basin (Santa Ana Forebay).

The Santa Ana River Watermaster calculates the amount and quality of total flow for each water year (October 1 to September 30). The Watermaster's Annual Report is used to determine compliance with the stipulated judgement referred to earlier, which set quality and quantity limits on the river. The Watermaster's report presents summary data compiled from the continuous monitoring of flow in cfs (cubic feet per second) and salinity as EC (electrical conductivity) at the USGS Prado Gaging Station. The Watermaster's annual determination of total flow quality will be used to determine compliance with the total flow objective in this Plan. In years of normal rainfall, most of the total flow of the river is percolated in the Santa Ana Forebay, and directly affects the quality of the groundwater. For that reason, compliance with the total dissolved solids (TDS) water quality objective for Reach 2 will be based on the five-year moving average of the annual TDS content of total flow. Use of this moving average allows the effects of wet and dry years to be smoothed out over the five-year period.

As was noted earlier, the three components of base flow in the river are wastewater, rising water, and nonpoint source discharges. These three components are present in varying amounts throughout the year, and the contributions and quality of each can be affected by the regulatory activities of the Regional Board. The quantity of storm flow is obviously highly variable; programs to control its quality are in their nascent stages. For these reasons, water quality objectives for controllable constituents are set based on the base flow of the river, rather than on total flow.

The regulatory activities of the Regional Board include setting waste discharge requirements on point source discharges. Waste discharges requirements are developed on the basis of the limited assimilative capacity of the river (see TDS and Nitrogen Wasteload Allocation, Chapter 5). Nonpoint source discharges, generally urban runoff (nuisance water) and agricultural tailwater, will be regulated by requiring compliance with Best Management Practices (BMPs), where appropriate. The rising water component of base flow will be affected by the extraction of brackish groundwater in several subbasins (a Basin Plan implementation action), by regulation of wastewater discharges, and other activities.

In order to determine whether the water quality and quantity objectives for base flow in Reach 3 are being met, the Regional Board will collect a series of grab and composite samples when the influence of storm flows and nontributary flows is at a minimum. This typically occurs during August and September. At this time of year, there is usually no water impounded behind Prado Dam. The volumes of storm flows, rising water and nonpoint source discharges tend to be low. The major component of base flow at this time is municipal wastewater. The results of this sampling will be compared with the continuous monitoring data collected by USGS and data from other sources. These data will be used to evaluate the efficacy of the Regional Board's regulatory approach, including the TDS and nitrogen wasteload allocations (see Chapter 5). Additional sampling in Reach 3 by the Board and other agencies will help evaluate the fate and effects of the various constituents of base flow, including the validity of the 50% nitrogen loss coefficient (discussed in Chapter 5).

Future river flows and quality (TDS and TIN) were projected by computer models. The results indicate that the objectives for TDS and total nitrogen will be met. The objectives for individual mineral constituents are expected to be met if the TDS objective is met.

Prado Basin Surface Water Management Zone

As discussed in Chapter 3 – Beneficial Uses, the Prado Basin Management Zone (PBMZ) is generally defined as a surface water feature within the Prado Basin. It is defined by the 566-foot elevation above mean sea level along the Santa Ana River and the four tributaries to the Santa Ana River in the Prado Basin (Chino Creek, Temescal Creek, Mill Creek and Cucamonga Creek). Nitrogen, TDS and other water quality objectives that have been established for these surface waters that flow within the proposed PBMZ are shown in Table 4-1. For the purpose of regulating discharges that would affect the PBMZ and downstream waters, these surface water objectives apply. This application of the existing surface water objectives assures continued water quality and beneficial use protection for waters within and downstream of the PBMZ.

"MAXIMUM BENEFIT" WATER QUALITY OBJECTIVES

As part of the 2004 update of the TDS/Nitrogen Management plan in the Basin Plan, several agencies proposed that alternative, less stringent TDS and/or nitrate-nitrogen water quality objectives be adopted for specific groundwater management zones and surface waters. These proposals were based on additional consideration of the factors specified in Water Code Section 13241 and the requirements of the State's antidegradation policy (State Board Resolution No. 68-16). Since the less stringent objectives would allow a lowering of water quality, the agencies were required to demonstrate that their proposed objectives would protect beneficial uses, and that water quality consistent with maximum benefit to the people of the state would be maintained (thus, the use of the term "maximum benefit" water quality objectives).

Appropriate beneficial use protection/maximum benefit demonstrations were made by the Chino Basin Watermaster/Inland Empire Utilities Agency, the Yucaipa Valley Water District and the City of Beaumont/San Timoteo Watershed Management Authority to justify alternative "maximum benefit" objectives for the Chino North, Cucamonga, Yucaipa, Beaumont and San Timoteo groundwater management zones. These "maximum benefit" proposals, which are described in detail in Chapter 5 – Implementation, entail commitments by the agencies to implement specific projects and programs. While these agencies' efforts to develop these proposals indicate their strong interest to proceed with these commitments, unforeseen circumstances may impede or preclude it. To address this possibility, this Plan includes both the "antidegradation" and "maximum benefit" objectives for the subject waters (See Table 4-1). Chapter 5 specifies the requirements for

implementation of these objectives. Provided that these agencies' commitments are met, then the agencies have demonstrated maximum benefit, and the "maximum benefit" objectives included in Table 4-1 for these waters apply for regulatory purposes. However, if the Regional Board finds that these commitments are not being met and that "maximum benefit" is thus not demonstrated, then the "antidegradation" objectives for these waters will apply. Chapter 5 also describes the mitigation requirements that will apply should discharges based on "maximum benefit" objectives occur unsupported by the demonstration of "maximum benefit".

COMPLIANCE WITH OBJECTIVES (Amended by Resolution No. 00-27, May 19, 2000)

"The Regional Board recognizes that immediate compliance with new, revised or newly interpreted water quality objectives adopted by the Regional Board or the State Water Resources Control Board, or with new, revised or newly interpreted water quality criteria promulgated by the U.S. Environmental Protection Agency, may not be feasible in all circumstances. Where the Regional Board determines that it is infeasible for a discharger to comply immediately with effluent limitations specified to implement such objectives or criteria, compliance shall be achieved in the shortest practicable period of time, not to exceed ten years after the adoption or interpretation of applicable objectives or criteria. This provision authorizes schedules of compliance for objectives and criteria that are adopted or revised or newly interpreted after the effective date of this amendment July 15, 2002.

REFERENCES

The "Federal Clean Water Act," 33 USC 466 ***et seq***.

California Water Code, Section 13000 "Water Quality," ***et seq***.

California State Water Resources Control Board, "Water Quality Criteria, Second Edition," 1963.

US EPA, "Ambient Water Quality Criteria for Ammonia," 1984.

US EPA Memorandum, "Revised Tables for Determining Average Freshwater Ammonia Concentrations," 1992.

California State University, Fullerton, "Investigation of Un-ionized Ammonia in the Santa Ana River, Final Project Report," February 1988.

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Santa Ana Watershed Project Authority, "Final Report, Santa Ana River Use-Attainability Analysis," June 1992.

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California Code of Regulations (CCR), Division 4, Chapter 15, Article 16, § 64449

Wildermuth Environmental, Inc., TIN/TDS – Phase 2A of the Santa Ana Watershed, Development of Groundwater Management Zones, Estimation of Historic and Current TDS and Nitrogen Concentrations in Groundwater, Final Technical Memorandum,” July 2000.

40 Code of Federal Regulations (CFR), Chapter 1, § 143,3

The Resources Agency of California, State Water Resources Control Board, Publication No. 3-1, “Water Quality Criteria”, pages 258-26, 1963

US Geological Survey, “Basic Ground-Water Hydrology”, Water Supply Paper 2220, pages 64-65, 1984

California State Water Resources Control Board, “Irrigation with Reclaimed Municipal Wastewater, A Guidance Manual”, Report No. 84-1, wr, July 1984.

REGION 8 INDEX

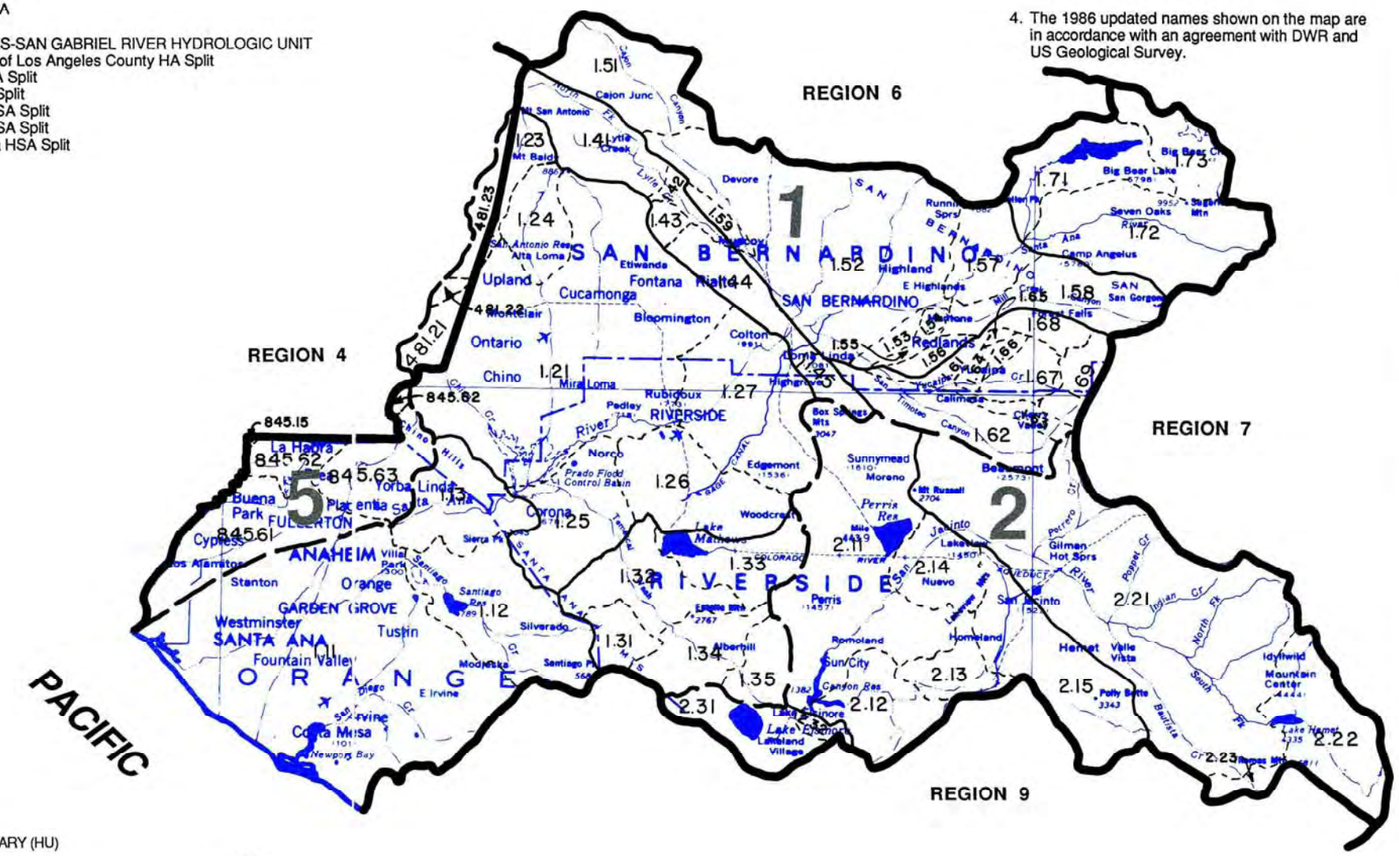
801.00	SANTA ANA RIVER HYDROLOGIC UNIT
801.10	Lower Santa Ana River HA
1.11	East Coastal Plain HSA
1.12	Santiago HSA
1.13	Santa Ana Narrows HSA
801.20	Middle Santa Ana River HA Split
801.21	Chino HSA Split
481.21	Chino HSA Split
481.22	Harrison HSA
801.23	Claremont Heights HSA Split
481.23	Claremont Heights HSA Split
801.24	Cucamonga HSA
1.25	Temescal HSA
1.26	Arlington HSA
1.27	Riverside HSA
801.30	Lake Matthews HA
1.31	Coldwater HSA
1.32	Bedford HSA
1.33	Cajalco HSA
1.34	Lee Lake HSA
1.35	Terra Cotta HSA
801.40	Colton-Rialto HA
1.41	Upper Lytle HSA
1.42	Lower Lytle HSA
1.43	Rialto HSA
1.44	Colton HSA
1.45	Reche HSA
801.50	Upper Santa Ana River HA
1.51	Cajon HSA
1.52	Bunker Hill HSA
1.53	Redlands HSA
1.54	Mentone HSA
1.55	Reservoir HSA
1.56	Crafton HSA
1.57	Santa Ana Canyon HSA
1.58	Mill Creek HSA
1.59	Sycamore HSA
801.60	San Timoteo HA
1.61	Yucaipa HSA
1.62	Beaumont HSA
1.63	Cherry Valley HSA
1.64	Chicken Hill HSA
1.65	Gateway HSA
1.66	Oak Glen HSA
1.67	South Mesa HSA
1.68	Triple Falls Creek HSA
1.69	Nobie Creek HSA
801.70	San Bernardino Mountain HA
1.71	Bear Valley HSA
1.72	Seven Oaks HSA
1.73	Baldwin HSA

802.00	SAN JACINTO VALLEY HYDROLOGIC UNIT
802.10	Perris HA
2.11	Perris Valley HSA
2.12	Menifee HSA
2.13	Winchester HSA
2.14	Lakeview HSA
2.15	Hemet HSA
802.20	San Jacinto HA
2.21	Gilman Hot Springs HSA
2.22	Hemet Lake HSA
2.23	Bautista HSA
802.30	Elsinore Valley HA
2.31	Elsinore HSA
2.32	Railroad HSA

805.00	LOS ANGELES-SAN GABRIEL RIVER HYDROLOGIC UNIT
805.10	Coastal Plain of Los Angeles County HA Split
845.15	Central HSA Split
845.60	Anaheim HA Split
845.61	Anaheim HSA Split
845.62	La Habra HSA Split
845.63	Yorba Linda HSA Split

NOTE:

1. The names and areas shown on this map are the same as used by the Department of Water Resources (DWR) in their Bulletin 130 Series except as explained below.
2. The numbering system used on this map is an adaptation of the numbering system used in the 130 Series.
3. The boundary between Region 8 and Region 4 follows the boundary between Los Angeles County and Orange or San Bernardino Counties, not the Hydrologic Boundary. The San Bernardino County line splits Hydrologic Unit 1 (Santa Ana River HU) so that Sub-Areas 481.21, 481.22, and 481.23 are legally in Region 4 but drain into Region 8. The Orange County line splits Hydrologic Unit 5 (Los Angeles-San Gabriel River HU) so that Sub-Areas 845.15, 845.61, 845.62 and 845.63 are legally in Region 8 but drain into Region 4. Therefore, a 5 digit number on the map indicates that a regional boundary divides a hydrologic unit, area or subarea. In these cases the second digit is the number of the region from which the hydrologic area has been separated by the regional boundary. All other digits are as described in the legend.
4. The 1986 updated names shown on the map are in accordance with an agreement with DWR and US Geological Survey.

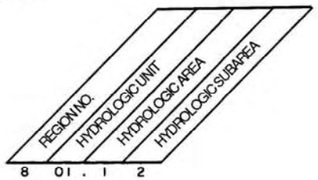


KEY TO REGION



LEGEND

- STREAM
- REGIONAL BOUNDARY
- HYDROLOGIC UNIT BOUNDARY (HU)
- HYDROLOGIC AREA BOUNDARY (HA)
- HYDROLOGIC SUBAREA BOUNDARY (SA)
- 5 HYDROLOGIC UNIT NUMBER



N

April 1973
Revised: July 1976
Revised: August 1986

State Water Resources Control Board
Surveillance and Monitoring Section
T.E. Lavenda, P.E. T E Lavenda

State of California
REGIONAL WATER QUALITY CONTROL BOARD

Santa Ana Region (8)

SANTA ANA HYDROLOGIC BASIN PLANNING AREA (SA)

Scale in miles
8 0 8 16 24 32
Scale 1:500,000

Table 4-1 WATER QUALITY OBJECTIVES

OCEAN WATERS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**		
NEARSHORE ZONE*									
San Gabriel River to Poppy Street in Corona del Mar+	---	---	---	---	---	---	---	801.11	
Poppy Street to Southeast Regional Boundary+	---	---	---	---	---	---	---	801.11	
OFFSHORE ZONE									
Waters Between Nearshore Zone And Limit of State Waters+	---	---	---	---	---	---	---		

* Defined by Ocean Plan Chapter II A.1.: "Within a zone bounded by shoreline and a distance of 1000 feet from shoreline or the 30-foot depth Contour, whichever is further from shoreline…"

\+ Numeric objectives have not been established; narrative objectives apply.

Table 4-1 WATER QUALITY OBJECTIVES - Continued

BAYS, ESTUARIES, AND TIDAL PRISMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solid	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**		
Anaheim Bay – Outer Bay+	---	---	---	---	---	---	---	801.11	
Anaheim Bay – Seal Beach National Wildlife Refuge+	---	---	---	---	---	---	---	801.11	
Sunset Bay – Huntington Harbour+	---	---	---	---	---	---	---	801.11	
Bolsa Bay+	---	---	---	---	---	---	---	801.11	
Bolsa Chica Ecological Reserve+	---	---	---	---	---	---	---	801.11	
Lower Newport Bay+	---	---	---	---	---	---	---	801.11	
Upper Newport Bay+	---	---	---	---	---	---	---	801.11	
Santa Ana River Salt Marsh+	---	---	---	---	---	---	---	801.11	
Tidal Prism of Santa Ana River (to within 1000' of Victoria Street) and Newport Slough+	---	---	---	---	---	---	---	801.11	
Tidal Prism of San Gabriel River – River Mouth to Marina Drive+	---	---	---	---	---	---	---	845.61	
Tidal Prisms of Flood Control Channels Discharging to Coastal or Bay Waters+	---	---	---	---	---	---	---	801.11	

+ Numeric objectives have not been established; narrative objectives apply.

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**		
LOWER SANTA ANA RIVER BASIN									
Santa Ana River									
Reach 1 – Tidal Prism to 17th Street in Santa Ana+	(Flood Flows Only)							801.11	
Reach 2 - 17th Street in Santa Ana to Prado Dam	650[1]	---	---	---	---	---	---	801.11	801.12
Aliso Creek+	---	---	---	---	---	---	---	845.63	
Carbon Canyon Creek+	---	---	---	---	---	---	---	845.63	
Santiago Creek Drainage									
Santiago Creek									
Reach 1 – below Irvine Lake	600	---	---	---	---	---	---	801.12	801.11
Reach 2 - Irvine Lake (see Lakes, Pg. 4-36)		---	---	---	---	---	---		
Reach 3 – Irvine Lake to Modjeska Canyon	350	260	20	12	2	80	---	801.12	
Reach 4 – in Modjeska Canyon	350	260	20	12	2	80	---	801.12	
Silverado Creek	650	450	30	20	1	275	---	801.12	
Black Star Creek+	---	---	---	---	---	---	---	801.12	
Ladd Creek+	---	---	---	---	---	---	---	801.12	

[1] Five-year moving average

\+ Numeric objectives have not been established; narrative objectives apply.

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**		
San Diego Creek Drainage									
San Diego Creek									
Reach 1 – below Jeffrey Road	1500	---	---	---	13	---	90	801.11	
Reach 2 – above Jeffrey Road to Headwaters	720	---	---	---	5	---	---	801.11	
Other Tributaries: Bonita Creek, Serrano Creek, Peters Canyon Wash, Hicks Canyon Wash, Bee Canyon Wash, Borrego Canyon Wash, Agua Chinon Wash, Laguna Canyon Wash, Rattlesnake Canyon Wash, Sand Canyon Wash and other Tributaries to these Creeks+	---	---	---	---	---	---	---		
San Gabriel River Drainage									
Coyote Creek (within Santa Ana Regional Boundary)+	---	---	---	---	---	---	---		

\+ Numeric objectives have not been established; narrative objectives apply.

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**		
UPPER SANTA ANA RIVER BASIN									
Santa Ana River									
Reach 3 – Prado Dam to Mission Blvd. in Riverside – Base Flow[2]	700	350	110	140	10[3]	150	30	801.21	801.27, 801.25
Reach 4 – Mission Blvd. in Riverside to San Jacinto Fault in San Bernardino	550	---	---	---	10	---	30	801.27	801.44
Reach 5 – San Jacinto Fault in San Bernardino to Seven Oaks Dam	300	190	30	20	5	60	25	801.52	801.57
Reach 6 – Seven Oaks Dam to Headwaters (see also Individual Tributary Streams)	200	100	30	10	1	20	5	801.72	
San Bernardino Mountain Streams									
Mill Creek Drainage:									
Mill Creek									
Reach 1 – Confluence with Santa Ana River to Bridge Crossing Route 38 at Upper Powerhouse	200	100	30	10	1	20	5	801.58	
Reach 2 – Bridge Crossing Route 38 at Upper Powerhouse to Headwaters	110	100	25	5	1	15	5	801.58	

[2] Additional Objectives: Boron: 0.75 mg/l

[3] Total nitrogen, filtered sample

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
Mountain Home Creek	200	100	30	10	1	20	5	801.58	
Mountain Home Creek, East Fork	200	---	---	---	---	---	---	801.70	
Monkey Face Creek	200	100	30	10	1	20	5	801.70	
Alger Creek	200	---	---	---	---	---	---	801.70	
Falls Creek	200	100	30	10	1	20	5	801.70	
Vivian Creek	200	---	---	---	---	---	---	801.70	
High Creek	200	---	---	---	---	---	---	801.70	
Other Tributaries: Lost, Oak Cove, Green, Skinner, Momyer, Glen Martin, Camp, Hatchery, Rattlesnake, Slide, Snow, Bridal Veil, and Oak Creeks, and other Tributaries to these Creeks	200	---	---	---	---	---	---	801.70	
Bear Creek Drainage:									
Bear Creek	175	115	10	10	1	4	5	801.71	
Siberia Creek	200	---	---	---	---	---	---	801.71	
Slide Creek	175	---	---	---	---	---	---	801.71	
All other Tributaries to these Creeks+	---	---	---	---	---	---	---	801.71	
Big Bear Lake (see Lakes, pg. 4-36)									

\+ Numeric objectives have not been established; narrative objectives apply. .

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
Big Bear Lake Tributaries:									
North Creek	175	---	---	---	---	---	---	801.71	
Metcalf Creek	175	---	---	---	---	---	---	801.71	
Grout Creek	150	---	---	---	---	---	---	801.71	
Rathbone (Rathbun) Creek	300	---	---	---	---	---	---	801.71	
Meadow Creek+	---	---	---	---	---	---	---	801.71	
Summit Creek+	---	---	---	---	---	---	---	801.71	
Other Tributaries to Big Bear Lake: Knickerbocker, Johnson, Minnelusa, Polique, and Red Ant Creeks, and other Tributaries to these Creeks	175	---	---	---	---	---	---	801.71	
Baldwin Lake (see Lakes, pg. 4-36)									
Baldwin Lake Drainage:									
Shay Creek+	---	---	---	---	---	---	---	801.73	
Other Tributaries to Baldwin Lake: Sawmill, Green, and Caribou Canyons and other Tributaries to these Creeks+	---	---	---	---	---	---	---	801.73	

\+ Numeric objectives have not been established; narrative objectives apply. .

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
Other Streams Draining to Santa Ana River (Mountain Reaches[1])									
Cajon Creek	200	100	30	10	1	20	5	801.51	
City Creek	200	115	30	10	1	20	5	801.57	
Devil Canyon Creek	275	125	35	20	1	2	5	801.57	
East Twin and Strawberry Creeks	475	---	---	---	---	---	---	801.57	
Waterman Canyon Creek	250	---	---	---	---	---	---	801.57	
Fish Creek	200	100	30	10	1	20	5	801.57	
Forsee Creek	200	100	30	10	1	20	5	801.72	
Plunge Creek	200	100	30	10	1	20	5	801.72	
Barton Creek	200	100	30	10	1	20	5	801.72	
Bailey Canyon Creek	200	---	---	---	---	---	---	801.72	
Kimbark Canyon, East Fork Kimbark Canyon, Ames Canyon And West Fork Cable Canyon Creeks	325	---	---	---	---	---	---	801.52	
Valley Reaches[‡] of Above Streams	(Water Quality Objectives Correspond to Underlying GW Basin Objectives)							801.52	

[‡] The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains.

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
Other Tributaries (Mountain Reaches[1]): Alder, Badger Canyon, Bledsoe Gulch, Borea Canyon, Breakneck, Cable Canyon, Cienega Seca, Cold, Converse, Coon, Crystal, Deer, Elder, Fredalba, Frog, Government, Hamilton, Heart Bar, Hemlock, Keller, Kilpecker, Little Mill, Little Sand Canyon, Lost, Meyer Canyon, Mile, Monroe Canyon, Oak, Rattlesnake, Round Cienega, Sand, Schneider, Staircase, Warm Springs Canyon And Wild Horse Creeks, and other tributaries to those Creeks	200	100	30	10	1	20	5	801.72	801.71, 801.57
San Gabriel Mountain Streams (Mountain Reaches[‡])									
San Antonio Creek	225	150	20	6	4	25	5	801.23	
Lytle Creek (South, Middle, and North Forks) and Coldwater Canyon Creek	200	100	15	4	4	25	5	801.41	801.42, 801.52, 801.59
Day Creek	200	100	15	4	4	25	5	801.21	
East Etiwanda Creek	200	100	15	4	4	25	5	801.21	
Valley Reaches[‡] of Above Streams	(Water Quality Objectives Correspond to Underlying GW Basin Objectives)							801.21	

‡ The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains.

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
Cucamonga Creek									
Reach 1 – Confluence with Mill Creek to 23rd St. in Upland+	---	---	---	---	---	---	---	801.21	
Reach 2 (Mountain Reach‡) – 23rd St. in Upland to headwaters	200	100	15	4	4	25	5	801.24	
Mill Creek+	---	---	---	---	---	---	---	801.25	
Other Tributaries (Mountain Reaches+): Cajon Canyon, San Sevaine, Deer, Duncan Canyon, Henderson Canyon, Bull, Fan, Demens, Thorpe, Angalls, Telegraph Canyon, Stoddard Canyon, Icehouse Canyon, Cascade Canyon, Cedar, Failing Rock, Kerkhoff and Cherry Creeks, and other Tributaries to these Creeks	200	---	---	---	---	---	---	801.21	801.23
San Timoteo Area Streams									
San Timoteo Creek **									
Reach 1A – Santa Ana River Confluence to Barton Road	---	---	---	---	---	---	---	801.52	801.53
Reach 1B – Barton Road to Gage at San Timoteo Canyon Rd. u/s of Yucaipa Valley WD discharge	---	---	---	---	---	---	---	801.52	801.53
Reach 2 – Gage at San Timoteo Canyon Road to Confluence with Yucaipa Creek	---	---	---	---	---	---	---	801.52	801.62

\+ Numeric objectives have not been established; narrative objectives apply

‡ The Division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains

** Surface water objectives not established; underlying Management Zone objectives apply. Biological quality protected by narrative objectives

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
Reach 3** – Confluence with Yucaipa Creek to confluence with Little San Gorgonio and Noble Creeks (Headwaters of San Timoteo Creek)	---	---	---	---	---	---	---	801.62	
Oak Glen, Potato Canyon and Birch Creeks	230	125	50	40	3	45	5	801.67	
Little San Gorgonio Creek	230	125	50	40	3	45	5	801.69	801.62, 801.63
Yucaipa Creek	290	175	60	60	6	45	15	801.67	801.61, 801.62 801.64
Other Tributaries to these Creeks – Valley Reaches +‡	---	---	---	---	---	---	---	801.62	801.52, 801.53
Other Tributaries to these Creeks – Mountain Reaches‡	290	---	---	---	---	---	---	801.69	801.67
Anza Park Drain+	---	---	---	---	---	---	---	801.27	
Sunneyslope Channel+	---	---	---	---	---	---	---	801.27	
Tequesquite Arroyo (Sycamore Creek)+	---	---	---	---	---	---	---	801.27	

\+ Numeric objectives have not been established; narrative objectives apply

** Surface water objectives not established; underlying Management Zone objectives apply. Biological quality protected by narrative objectives

‡ The Division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
Prado Area Streams									
Chino Creek									
Reach 1A – Santa Ana River confluence to downstream of confluence with Mill Creek (Prado Area) – Base Flow*	700	350	110	140	10**	150	30	801.21	
Reach 1B – Confluence of Mill Creek (Prado Area) to beginning of concrete-lined channel south of Los Serranos Road	550	240	75	75	8	60	15	801.21	
Reach 2 – Beginning of concrete lined channel south of Los Serranos Road to confluence with San Antonio Creek	---	---	---	---	---	---	---	801.21	
Temescal Creek									
Reach 1 – Lincoln Avenue to Riverside Canal+	---	---	---	---	---	---	---	801.27	
Reach 2 – Riverside Canal to Lee Lake+	---	---	---	---	---	---	---	801.27	
Reach 3 – Lee Lake, (see Lakes, Pg. 4-36)									

* Additional objective: Boron 0.75 mg/l

** Total nitrogen, filtered sample

\+ Numeric objectives have not been established; narrative objectives apply

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
Reach 4 – Lee Lake to Mid-section line of Section 17 (downstream end of freeway cut)+	---	---	---	---	---	---	---	801.34	
Reach 5 – Mid-section line of Section 17 (downstream end of freeway cut) to Elsinore Groundwater Subbasin Boundary+	---	---	---	---	---	---	---	801.35	
Reach 6 – Elsinore Groundwater Subbasin Boundary to Lake Elsinore Outlet+	---	---	---	---	---	---	---	801.27	
Coldwater Canyon Creek	250	---	---	---	---	---	---	801.32	
Bedford Canyon Creek+	---	---	---	---	---	---	---	801.32	
Dawson Canyon Creek+	---	---	---	---	---	---	---	801.32	
Other Tributaries to these Creeks	250	---	---	---	---	---	---	801.32	

\+ Numeric objectives have not been established; narrative objectives apply

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
San Jacinto River Basin									
San Jacinto River									
Reach 1 – Lake Elsinore to Canyon Lake	450	260	50	65	3	60	15	802.32	802.31
Reach 2 – Canyon Lake (see Lakes, Pg. 4-37)									
Reach 3 – Canyon Lake to Nuevo Road	820	400	---	250	6	---	15	802.11	
Reach 4 – Nuevo Road to North-South Mid-Section Line, T4S/R1W-38*	500	220	75	125	5	65	---	802.14	802.21
Reach 5 – North-South Mid-Section Line, T4S/R1 W-SB, to Confluence With Poppet Creek	300	140	30	25	3	40	12	802.21	
Reach 6 – Poppet Creek to Cranston Bridge	250	130	25	20	1	30	12	802.21	
Reach 7 – Cranston Bridge to Lake Hemet	150	100	10	15	1	20	5	802.21	
Bautista Creek – Headwaters to Debris Dam	250	130	25	20	1	30	5	802.21	802.23
Strawberry Creek and San Jacinto River, North Fork	150	100	10	15	1	20	5	802.21	

* Note the quality objective for Reach 4 is not intended to preclude transport of water supplies or delivery to Canyon Lake

Table 4-1 WATER QUALITY OBJECTIVES - Continued

INLAND SURFACE STREAMS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
Fuller Mill Creek	150	100	10	15	1	20	5	802.22	
Stone Creek	150	100	10	15	1	20	5	802.21	
Salt Creek+	---	---	---	---	---	---	---	802.12	
Other Tributaries: Logan, Black Mountain, Juaro Canyon, Indian, Hurkey, Poppet and Protrero Creeks, and other Tributaries to these Creeks	150	70	10	12	1	15	5	802.12	802.22

\+ Numeric objectives have not been established; narrative objectives apply.

Table 4-1 WATER QUALITY OBJECTIVES - Continued

LAKES AND RESERVOIRS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
UPPER SANTA ANA RIVER BASIN									
Baldwin Lake*+	---	---	---	---	---	---	---	801.73	
Big Bear Lake**	175	125	20	10	0.15	10	---	801.71	
Erwin Lake+	---	---	---	---	---	---	---	801.73	
Evans Lake	490	---	---	---	---	---	---	801.27	
Jenks Lake	200	100	30	10	1	20	---	801.72	
Lee Lake+	---	---	---	---	---	---	---	801.34	
Mathews, Lake	700	325	100	90	---	290	---	801.33	
Mockingbird Reservoir	650	---	---	---	---	---	---	801.26	
Norconian, Lake	1050	---	---	---	---	---	---	801.25	
LOWER SANTA ANA RIVER BASIN									
Anaheim Lake	600	---	---	---	---	---	---	801.11	
Irvine Lake (Santiago Reservoir)	730	360	110	130	6	310	---	801.12	
Laguna, Lambert, Peters Canyon, Rattlesnake, Sand Canyon, and Siphon Reservoirs	720	---	---	---	---	---	---	801.11	

* Fills occasionally with storm flows; may evaporate completely
** Additional Objective: 0.15 mg/l Phosphorus
\+ Numeric objectives have not been established; narrative objectives apply.

Table 4-1 WATER QUALITY OBJECTIVES - Continued

LAKES AND RESERVOIRS	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
SAN JACINTO RIVER BASIN									
Canyon Lake (Railroad Canyon Reservoir)***	700	325	100	90	8	290	---	802.11	802.12
Elsinore, Lake****	2000	---	---	---	1.5	---	---	802.31	
Fulmor, Lake	150	70	10	12	1	15	---	802.21	
Hemet, Lake	135	---	25	20	1	10	---	802.22	
Perris, Lake	220	110	50	55	1	45	---	802.11	

*** Note: The quality objectives for Canyon Lake is not intended to preclude transport of water supplies or delivery to the Lake.

**** Lake volume and quality highly variable

Table 4-1 WATER QUALITY OBJECTIVES - Continued

WETLANDS (INLAND)	WATER QUALITY OBJECTIVES (mg/l)							Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Total Inorganic Nitrogen**	**Sulfate**	**Chemical Oxygen Demand**	Primary	Secondary
San Jacinto Freshwater Marsh** ##	2000	---	---	---	13	---	90	801.11	
Shay Meadows+	---	---	---	---		---	---	801.73	
Stanfield Marsh+**	---	---	---	---	---	---	---	801.71	
Prado Basin Management Zone @	---	---	---	---	---	---	---	801.21	
San Jacinto Wildlife Preserve+**	---	---	---	---	---	---	---	802.11	802.14
Glen Helen+	---	---	---	---	---	---	---	801.59	

Additional objective for San Joaquin Freshwater Marsh: COD 90 mg/l

** This is a created wetlands as defined in the wetlands discussion (see Chapter 3)

+ Numeric objectives have not been established; narrative objectives apply

@ includes the Prado Flood Control Basin, a created wetland as defined in the wetlands discussion (see Chapter 3). Chino Creek, Reach 1A, Chino Creek, 1B, Mill Creek (Prado Area) and Santa Ana River, Reach 3 TDS and TIN numeric objectives apply (see discussion).

Table 4-1 WATER QUALITY OBJECTIVES - Continued

GROUNDWATER MANAGEMENT ZONES	WATER QUALITY OBJECTIVES (mg/l)						Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Nitrate as Nitrogen**	**Sulfate**	Primary	Secondary
UPPER SANTA ANA RIVER BASIN								
Big Bear Valley	300	225	20	10	5.0	20	801.73	
Beaumont “maximum benefit”++	330	---	---	---	5.0	---	801.62	801.63, 801.69
Beaumont “antidegradation”++	230	---	---	---	1.5	---	801.62	801.63, 801.69
Bunker Hill - A	310	---	---	---	2.7	---	801.51	801.52
Bunker Hill - B	330	---	---	---	7.3	---	801.52	801.53, 801.54, 801.57 801.58
Colton	410	---	---	---	2.7	---	801.44	801.45
Chino – North “maximum benefit”++	420	---	---	---	5.0	---	801.21	481.21, 481.23, 481.22 801.21, 801.23, 801.24
Chino 1 – “antidegradation”++	280	---	---	---	5.0	---	802.21	481.21
Chino 2 – “antidegradation”++	250	---	---	---	2.9	---	801.21	
Chino 3 – “antidegradation”++	260	---	---	---	3.5	---	801.21	
Chino – East @	730	---	---	---	10.0	---	801.21	801.27
Chino – South @	680	---	---	---	4.2	---	801.21	801.26
Cucamonga “maximum benefit”++	380	---	---	---	5.0	---	801.24	801.21

++ “Maximum benefit” objectives apply unless Regional Board determines that lowering of water quality is not of maximum benefit to the people of the state; in that case, “antidegradation” objectives apply (for Chino North, antidegradation objectives for Chino 1, 2, 3 would apply if maximum benefit is not demonstrated). (see discussion in Chapter 5).

@ Chino East and South are the designations in the Chino Basin Watermaster “maximum benefit” proposal (see Chapter 5) for the management Zones identified by Wildermuth Environmental, Inc., (July 2000) as Chino 4 and Chino 5, respectively.

Table 4-1 WATER QUALITY OBJECTIVES - Continued

GROUNDWATER MANAGEMENT ZONES	WATER QUALITY OBJECTIVES (mg/l)						Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Nitrate as Nitrogen**	**Sulfate**	Primary	Secondary
UPPER SANTA ANA RIVER BASIN								
Cucamonga "antidegradation"++	210	---	---	---	2.4	---	801.24	801.21
Lytle	260	---	---	---	1.5	---	801.42	801.42
Rialto	230	---	---	---	2.0	---	801.41	801.42
San Timoteo "maximum benefit"++	400	---	---	---	5.0	---	801.62	
San Timoteo "antidegradation"++	300	---	---		2.7	---	801.62	
Yucaipa "maximum benefit"++	370	---	---	---	5.0	---	801.61	801.55, 801.54, 801.56, 801.63, 801.65, 801.66 801.67
Yucaipa "antidegradation"++	320	---	---	---	4.2	---	801.61	801.55, 801.54, 801.56, 801.63, 801.65, 801.66 801.67
MIDDLE SANTA ANA RIVER BASIN								
Arlington	980	---	---	---	10	---	801.26	
Bedford**	---	---	---	---	---	---	801.32	
Coldwater	380	---	---	---	1.5	---	801.31	
Elsinore	480	---	---	---	1.0	---	802.31	
Lee Lake**	---	---	---	---	---	---	801.34	

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++ "Maximum benefit" objectives apply unless Regional Board determines that lowering of water quality is not of maximum benefit to the people of the state; in that case, "antidegradation" objectives apply (for Chino North, antidegradation objectives for Chino 1, 2, 3 would apply if maximum benefit is not demonstrated). (see discussion in Chapter 5).

** Numeric objectives not established; narrative objectives apply

Table 4-1 WATER QUALITY OBJECTIVES - Continued

GROUNDWATER MANAGEMENT ZONES	WATER QUALITY OBJECTIVES (mg/l)						Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Nitrate as Nitrogen**	**Sulfate**	Primary	Secondary
Riverside - A	560	---	---	---	6.2	---	801.27	
Riverside - B	290	---	---	---	7.6	---	801.27	
Riverside - C	680	---	---	---	8.3	---	801.27	
Riverside - D	810	---	---	---	10.0	---	801.27	
Riverside - E	720	---	---	---	10.0	---	801.27	
Riverside - F	660	---	---	---	9.5	---	801.27	
Temescal	770	---	---	---	10.0	---	801.25	
SAN JACINTO RIVER BASIN								
Gardner Valley	300	100	65	30	2.0	40	802.22	
Idyllwild Area**	---	---	---	---	---	---	802.22	802.21
Canyon	230	---	---	---	2.5	---	802.21	
Hemet - South	730	---	---	---	4.1	---	802.15	802.21
Lakeview – Hemet North	520	---	---	---	1.8	---	802.14	802.15

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** Numeric objectives not established; narrative objectives apply

Table 4-1 WATER QUALITY OBJECTIVES - Continued

GROUNDWATER MANAGEMENT ZONES	WATER QUALITY OBJECTIVES (mg/l)						Hydrologic Unit	
	Total Dissolved Solids	**Hardness**	**Sodium**	**Chloride**	**Nitrate as Nitrogen**	**Sulfate**	Primary	Secondary
Menifee	1020	---	---	---	2.8	---	802.13	
Perris North	570	---	---	---	5.2	---	802.11	
Perris South	1260	---	---	---	2.5	---	802.11	802.12, 802.13
San Jacinto - Lower	520	---	---	---	1.0	---	802.21	
San Jacinto - Upper	320	---	---	---	1.4	---	802.21	802.23
LOWER SANTA ANA RIVER BASIN								
La Habra**	---	---	---	---	---	---	845.62	
Santiago**	---	---	---	---	---	---	801.12	
Orange	580	---	---	---	3.4	---	801.11	801.13, 845.61, 801.14
Irvine	910	---	---	---	5.9	---	801.11	

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** Numeric objectives not established; narrative objectives apply

Table 4-2

4-Day Average Concentration for Ammonia
Salmonids or Other Sensitive Coldwater Species Present
(COLD)

Un-ionized Ammonia (mg/liter N)		Temperature, C						
		0	5	10	15	20	25	30
pH	6.50	0.0004	0.0005	0.0007	0.0010	0.0010	0.0010	0.0010
	6.75	0.0006	0.0009	0.0013	0.0018	0.0018	0.0018	0.0018
	7.00	0.0011	0.0016	0.0022	0.0031	0.0031	0.0031	0.0031
	7.25	0.0020	0.0028	0.0040	0.0056	0.0056	0.0056	0.0056
	7.50	0.0035	0.0050	0.0070	0.0099	0.0099	0.0099	0.0099
	7.75	0.0069	0.0097	0.0137	0.0194	0.0194	0.0194	0.0194
	8.00	0.0080	0.0112	0.0159	0.0224	0.0224	0.0224	0.0224
	8.25	0.0080	0.0112	0.0159	0.0224	0.0224	0.0224	0.0224
	8.50	0.0080	0.0112	0.0159	0.0224	0.0224	0.0224	0.0224
	8.75	0.0080	0.0112	0.0159	0.0224	0.0224	0.0224	0.0224
	9.00	0.0080	0.0112	0.0159	0.0224	0.0224	0.0224	0.0224

Total Ammonia (mg/liter N)		Temperature, C						
		0	5	10	15	20	25	30
pH	6.50	1.36	1.27	1.20	1.15	0.796	0.556	0.393
	6.75	1.36	1.27	1.20	1.15	0.796	0.556	0.393
	7.00	1.36	1.27	1.20	1.16	0.798	0.558	0.395
	7.25	1.36	1.27	1.20	1.16	0.800	0.560	0.397
	7.50	1.36	1.27	1.21	1.16	0.804	0.565	0.402
	7.75	1.49	1.40	1.33	1.28	0.890	0.627	0.448
	8.00	0.974	0.913	0.871	0.844	0.589	0.418	0.302
	8.25	0.551	0.519	0.497	0.484	0.341	0.245	0.179
	8.50	0.313	0.297	0.286	0.282	0.202	0.147	0.111
	8.75	0.180	0.172	0.168	0.169	0.123	0.093	0.072
	9.00	0.105	0.101	0.101	0.105	0.079	0.062	0.050

Table 4-3

4-Day Average Concentration for Ammonia
Salmonids or Other Sensitive Coldwater Species Absent [1]
(WARM)

Un-ionized Ammonia (mg/liter N)		Temperature, C						
		0	5	10	15	20	25	30
pH	6.50	0.0006	0.0008	0.0012	0.0017	0.0024	0.0024	0.0024
	6.75	0.0010	0.0015	0.0021	0.0030	0.0042	0.0042	0.0042
	7.00	0.0019	0.0026	0.0037	0.0053	0.0074	0.0074	0.0074
	7.25	0.0033	0.0047	0.0066	0.0094	0.0132	0.0132	0.0132
	7.50	0.0059	0.0083	0.0118	0.0166	0.0235	0.0235	0.0235
	7.75	0.0115	0.0162	0.0229	0.0324	0.0458	0.0458	0.0458
	8.00	0.0133	0.0188	0.0265	0.0375	0.0530	0.0530	0.0530
	8.25	0.0133	0.0188	0.0265	0.0375	0.0530	0.0530	0.0530
	8.50	0.0133	0.0188	0.0265	0.0375	0.0530	0.0530	0.0530
	8.75	0.0133	0.0188	0.0265	0.0375	0.0530	0.0530	0.0530
	9.00	0.0133	0.0188	0.0265	0.0375	0.0530	0.0530	0.0530

Total Ammonia (mg/liter N)		Temperature, C						
		0	5	10	15	20	25	30
pH	6.50	2.27	2.12	2.01	1.93	1.88	1.31	0.928
	6.75	2.27	2.12	2.01	1.93	1.88	1.31	0.930
	7.00	2.27	2.12	2.01	1.93	1.89	1.32	0.933
	7.25	2.27	2.12	2.01	1.94	1.89	1.32	0.939
	7.50	2.27	2.13	2.02	1.95	1.90	1.33	0.949
	7.75	2.49	2.34	2.22	2.14	2.10	1.48	1.06
	8.00	1.63	1.53	1.46	1.41	1.39	0.987	0.173
	8.25	0.922	0.868	0.831	0.811	0.806	0.578	0.424
	8.50	0.524	0.496	0.479	0.472	0.476	0.348	0.262
	8.75	0.301	0.287	0.281	0.282	0.291	0.219	0.170
	9.00	0.175	0.170	0.170	0.175	0.187	0.146	0.119

[1] The values may be conservative, however. If a more refined criterion is desired, EPA recommends a site-specific Criteria modification.

Table 4-4

Equations Used to Calculate UIA-N and Total Ammonia -N Water Quality Objectives for COLD and WARM Waterbodies

COLD-Chronic UIA-N	0≤T≤15	15≤T≤30
6.5≤pH≤7.7	$\frac{0.0223}{10^{(8.3-.03T-pH)}}$	$\frac{0.0158}{10^{(7.7-pH)}}$
7.7≤pH≤8	$\frac{0.0396}{10^{(0.6-0.03T)}+10^{(8.0-0.03T-pH)}}$	$\frac{0.0280}{1+10^{(7.4-pH)}}$
8≤pH≤9	$\frac{0.0317}{10^{(0.6-0.03T)}}$	0.0224

WARM-Chronic UIA-N	0≤T≤15	15≤T≤30
6.5≤pH≤7.7	$\frac{0.0372}{10^{(8.3-.03T-pH)}}$	$\frac{0.0372}{10^{(7.7-pH)}}$
7.7≤pH≤8	$\frac{0.0662}{10^{(0.6-0.03T)}+10^{(8.0-0.03T-pH)}}$	$\frac{0.0662}{1+10^{(7.4-pH)}}$
8≤pH≤9	$\frac{0.0530}{10^{(0.6-0.03T)}}$	0.0530

Total Ammonia-N Objectives

$$NH_3\text{-}N = UIA\text{-}N * [1+10^{(0.09018+\frac{2729.92}{T+273.15}-pH)}]$$

Note: For all equations, T is the temperature in °C

CHAPTER 5

IMPLEMENTATION

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INTRODUCTION

This chapter describes the implementation plan, the actions that are necessary to achieve the water quality objectives specified in Chapter 4 and thereby protect the beneficial uses of the region's surface and groundwaters (Chapter 3). These actions will require the coordinated efforts of the Regional Board and numerous water supply and wastewater management agencies, as well as city and county governments and other planning entities within the Region.

The Implementation chapter of the 1983 Basin Plan focused largely on the mineral imbalance problem in the region and the management of total dissolved solids (TDS) through waste discharges requirements, wastewater reclamation requirements, improvements in water supply quality, recharge projects, and other measures. Since the adoption of the 1983 Basin Plan, the Regional Board's knowledge of the water quality problems in the Santa Ana Region has increased considerably, and the number and variety of water quality programs undertaken to address those problems have increased accordingly. Several new programs are being implemented statewide by each regional board, including broad new responsibilities related to landfill operations and closure, oversight of leaking underground storage tank cleanup activities, and control of nonpoint sources such as urban runoff and stormwater from industrial facilities and construction sites. These new programs are part of the Board's implementation plan and are described in this chapter.

IMPLEMENTATION THROUGH WASTE DISCHARGE REQUIREMENTS

The Regional Board's principal means of achieving the water quality objectives and protecting the beneficial uses specified in this plan is the development, adoption, issuance and enforcement of waste discharge requirements. By regulating the quality of wastewaters discharged, and in other ways controlling the discharge of wastes which may impact surface and groundwater quality, the Regional Board works to protect the Region's water resources.

The Regional Board's regulatory tools include National Pollutant Discharge Elimination System permits, Waste Discharge Requirements, Water Reclamation Requirements, Water Quality Certification and Waste Discharge Prohibition.

National Pollutant Discharge Elimination System (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges of pollutants to "navigable waters" of the United States, which includes any discharge to surface waters – lakes, rivers, streams, bays, the ocean, dry streambeds, wetlands and storm sewers that are tributary to any surface water body. NPDES permits are issued under the federal Clean Water Act, Title IV "Permits and Licenses," Section 402 (33 USC 466 *et seq*.). The Regional Board issues these permits in lieu of direct issuance by the US EPA, subject to review and approval by the US EPA Regional Administrator (EPA Region IX). The terms of these NPDES permits implement pertinent provisions of the federal Clean Water Act and the Act's implementing regulations including pretreatment, sludge management, effluent limitations for specific industries and antidegradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the Regional Board are also Waste Discharge Requirements issued under the authority of the California Water Code.

In addition to regulating discharges of wastewater to surface waters, NPDES permits also require municipal sewage treatment facilities to implement and monitor industrial pretreatment programs if their design capacity is greater than five million gallons per day (MGD). Smaller municipal treatment systems may also be required to conduct pretreatment programs if there are significant industrial contributions to their systems. The pretreatment programs must comply with the federal regulations specified in 40 CFR 403.

At this time, there are approximately 2,000 NPDES permits in effect in the Santa Ana Region. As shown in Table 5-1, these NPDES permits regulate discharge from publicly owned treatment works (POTWs, or sewage treatment plants), industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less and are therefore to be updated regularly. The rapid and dramatic population and urban growth in the Santa Ana Region has caused a significant increase in NPDES permit applications for new waste discharges. Because of staff resource limitations, the Board generally focuses its permitting efforts on the issuance of permits for these new discharges. NPDES permit updates are done to the extent feasible, particularly for the more significant discharges. In some cases, if the discharge does not change substantially over the permitting period, administrative extensions of the existing permits are issued by the Regional Board's Executive Officer.

To expedite the permit issuance process, the Regional Board has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. These general permits address discharges from groundwater cleanup projects (Order No. 91-63) and dewatering activities (Order No. 93-49). Proponents of groundwater cleanup or dewatering projects are required to file individual permit applications, which are reviewed

by Regional Board staff to determine whether the requirements of the general permits apply and are sufficient to assure water quality protection. If so, the applicants are authorized by the Regional Board's Executive Officer to discharge in conformance with the general permit. A general permit for boatyard operations is being drafted. Additional general permits will be developed and adopted as appropriate to streamline the permitting process.

Similarly, the State Board has issued general permits for stormwater runoff from industrial facilities and construction sites statewide (see discussion on stormwater runoff). Stormwater discharges from industrial and construction activities in the Santa Ana Region can be covered under these general permits, which are administered jointly by the State Board and Regional Boards.

(Amended by Resolution No. 00-27, May 19, 2000)
Where the Regional Board determines that it is infeasible to achieve immediate compliance with an effluent limitation specified to implement a new, revised or newly interpreted water quality objective, whether numeric or narrative, adopted by the Regional Board or State Water Resources Control Board, or with a new, revised or newly interpreted water quality criterion promulgated by the U.S. Environmental Protection Agency, the Regional Board may establish a schedule of compliance in a discharger's waste discharge requirements (NPDES permit). The schedule of compliance shall include a time schedule for completing specific actions that demonstrate reasonable progress toward attainment of the effluent limitation and, thereby, the objective or criterion. The schedule shall contain a final compliance date, based on the shortest practicable time (determined by the Regional Board at a public hearing) required to achieve compliance. In no event shall an NPDES permit include a schedule of compliance that allows more than ten years from the date of adoption or interpretation of the applicable objective or criterion. Schedules of compliance are authorized by this provision only for those effluent limitations that implement objectives and criteria adopted, revised or newly interpreted after the effective date of this provision, July 15, 2002.

To document the need for and justify the duration of any such compliance schedule, a discharger must submit the following information, at a minimum: (1) the results of a diligent effort to quantify pollutant levels in the discharge and the sources of the pollutant(s) in the waste stream; (2) documentation of source control efforts currently underway or completed, including compliance with any Pollution Prevention programs that have been established; (3) a proposed schedule for additional source control measures or waste treatment; (4) the discharge quality that can reasonably be achieved until final compliance is attained; and (5) a demonstration that the proposed schedule is as short as possible, taking into account economic, technical and other relevant factors. The need for additional information and analyses will be determined by the Regional Board on a case-by-case basis. **(End of Resolution No. 00-27)**

Table 5-1

Representative NPDES Permitted Facilities in the Santa Ana Region
(as of November 3, 1993)[1]

Facility Type	Number Requested
Boatyards	10
Dewatering Operations	31
Groundwater Cleanup Projects	150
Stormwater Discharges 39 individually regulated by RWQCB; 1800 regulated by SWRCB's general permits	1839
Publicly Owned Treatment Works	
TOTAL	**2054**

[1] The list of facilities is regulated under NPDES permits is updated periodically and is available at the Regional Board office.

Table 5-2

Representative WDR Permitted Facilities in the Santa Ana Region
(as of November 3, 1993) [2]

Facility Type	Number Regulated
Brine Evaporation	24
Composing	19
Groundwater Cleanup	32
Dairies	468
Landfills	43
Mobile Home Parks (community septic systems)	22
Publicly Owned Treatment Works	37
TOTAL	**645**

[2] The list of facilities regulated under WDR permits is updated periodically and is available at the Regional Board office.

Where the terms of these general permits are not sufficient to protect water quality, the Board issues individual permits for these discharges.

Waste Discharge Requirements

Waste Discharge Requirements (WDRs) are issued by the Regional Board under the provisions of the California Water Code, Division 7 "Water Quality," Article 4 "Waste Discharge Requirements." These requirements regulate the discharge of wastes which are not made to surface waters but which may impact the region's water quality by affecting underlying groundwater basins. Such WDRs are issued for POTWs' wastewater reclamation operations, discharges of wastes from industries, subsurface waste discharges such as septic systems, sanitary landfills, dairies and a variety of other activities which can affect water quality. There are approximately 550 WDRs in place, as indicated in Table 5-2.

Table 5-2 shows that most WDRs have been issued to dairies. To streamline the permit process, the Regional Board has developed a general permit for dairies and other animal confinement facilities (Order No. 94-7). To implement the federal stormwater requirements, this permit will be issued as an NPDES permit.

Waivers

The California Water Code allows Regional Boards to waive waste discharge requirements (WDRs) for a specific discharge or types of discharges where it is not against the public interest (Section 13269). These waivers are conditional and may be terminated at any time.

On May 11, 1984, the Regional Board adopted Resolution No. 84-48, which waives WDRs for certain types of discharges. Resolution No. 84-48 was amended by Resolution No. 91-75 in 1991. Resolution No. 84-48 and Resolution No 91-75 are incorporated into the Basin Plan by reference and are included in Appendix IV. Only discharges which comply with the conditions contained in Resolution No. 84-48 as amended by Resolution No. 91-75, qualify for this waiver. Even though a discharge may qualify for a waiver, dischargers are still required to file Reports of Waste Discharge (ROWD), together with the appropriate filing fees. Regional Board staff determines if the effort expended in reviewing the ROWD justifies retaining any portion of the fee. If not, the fee is fully refunded.

Water Reclamation Requirements

Reclaimed water is water that, as a result of treatment, is suitable for a direct beneficial use or a controlled use that would otherwise not occur and is therefore considered a valuable resource. The State Board adopted the Reclamation Policy to encourage development of water reclamation facilities to increase the availability of reclaimed water to help meet the growing water requirements of the State (Chapter 2). The State Board is authorized to provide loans for the development of water reclamation facilities, or for studies and investigations in connection with water reclamation.

Section 13521 of the California Water Code requires the State Department of Health Services to establish statewide reclamation criteria for each type of use of reclaimed water, where such use involves the protection of public health. These regulations, contained in Title 22 of the California Code of Regulations, are the basic regulations governing the use of reclaimed water in California. The existing Title 22 regulations were adopted in 1978; proposed new regulations are currently under review.

The Regional Board implements the provisions of Title 22 by issuing Water Reclamation Requirements (WRRs) to the producer, the user of reclaimed water, or both. WRRs are issued for a variety of uses, including, but not limited to, landscape irrigation, fodder crop irrigation, duck ponds, freeway landscape irrigation, groundwater recharge, injection for seawater intrusion barrier, use in toilet flushing, and other non-domestic uses in high rises or nonresidential buildings.

The Santa Ana Regional Board currently has 76 WRRs issued to producers and/or users of reclaimed water. Some of the producers have received or applied for Master Reclamation Requirements (MRR) which would allow the producer to distribute their reclaimed water to various users without additional user reclamation requirements for the Regional Board. With the water shortage in southern California, there is an increase in the demand for reclaimed water. With sophisticated treatment technologies, reclaimed water could be used for almost anything, except domestic supply.

The detailed requirements, conditions, prohibitions, and other specifications included within NPDES, WDR, and WRR permits are developed on the basis of existing state and federal law, Sate Board Water Quality Control Plans and Policies (*e.g.*, the Ocean Plan), and the contents of this Basin Plan. The foremost consideration is the protection of water quality. The quality of the discharge specified through the limitations in the permit is calculated to allow the water quality objectives of the receiving water to be met or maintained, and in some cases, the water quality is improved.

When the limits included in the NPDES, WDR or WRR permits cannot be met because treatment facilities are inadequate or the water supply is inferior, these permits may include a time schedule for compliance and interim discharger a period of time to make the necessary changes and/or improvements.

Waste Discharge Prohibitions

The Regional Board also implements this Basin Plan through the adoption of waste discharge prohibitions as necessary. Section 13243 of the California Water Code states that a Regional Board may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted. The Regional Board implements this section of the Water Code by adopting waste discharge requirements issued to individual discharges and in the Basin Plan itself.

A. General Prohibitions

1. Unless regulated by appropriate waste discharge requirements, the discharge to surface or groundwaters of waste which contains the following substances is prohibited.

    - Toxic substances or materials;
    - Pesticides;
    - PCB's (polychlorinated biphenyls);
    - Mercury or mercury compounds;
    - Radioactive substances or material in excess of levels allowed by the California Code of Regulations.

   This list is not necessarily all-inclusive. The Regional Board may modify or update this list as appropriate.

B. Prohibitions Applying to Inland Surface Waters

1. The discharge of untreated sewage to any surface water stream, natural or man-made, or to any drainage system intended to convey stormwater runoff to surface water streams is prohibited.

2. The discharge of treated sewage to streams, lakes or reservoirs, or to tributaries thereto, which are designated **MUN** and which are used as a domestic water supply is prohibited unless approved by the California Department of Health Services. The discharge of treated sewage to waterbodies which are excepted from **MUN** (see Table 3-1) but which are tributary to waters designated **MUN** and are used as a domestic water supply is prohibited unless the discharge of treated sewage to the drinking water supply is precluded or approved by the California Department of Health Services.

C. Prohibitions Applying to Oceans, Bays, and Estuary Waters

   The prohibitions included in the California Ocean Plan, Thermal Plan, and the Policy for Enclosed Bays and Estuaries are hereby incorporated into this plan by reference.

D. Prohibitions Applying to Groundwaters

1. The discharge of the following materials to the ground, other than into impervious facilities, is prohibited:

    a. Acids or caustics, whether neutralized or not, and

    b. Excessively saline wastes (electrical conductivity greater than 2000 µmhos/cm)

2., Prohibitions Applying to Subsurface Leaching Percolation Systems

In 1973, the Regional Board adopted prohibitions on the use of subsurface disposal systems in the following areas:

a. Grand Terrace (CSA 70, Improvement Zone H);

b. Yucaipa-Calimesa (Yucaipa Valley County Water District);

c. Lytle Creek above 2600 foot elevation;

d. Mill Creek above 2600 foot elevation; and

e. Bear Valley (includes Baldwin Lake Drainage Area);

In 1982, the Regional Board adopted prohibition on the use of subsurface disposal systems for the Homeland-Green Acres area and Romoland areas (exact boundaries for these prohibition areas are shown on maps on file at the Regional Board office).

The Board adopted specified dates for final compliance with these prohibitions. In some cases, these dated have been revised via Basin Plan amendments. The compliance dates are as follows:

a. Grand Terrace: February 1, 1988

b. Yucaipa-Calimesa – February 1, 1988

c. Lytle Creek – July 1, 1978

d. Mill Creek - July 1, 1978

e. Bear Valley – July 1, 1980

f. Homeland-Green Acres – July 1, 1990

g. Romoland – July 1, 1990

Exemptions from these prohibitions may be granted if certain criteria are satisfied (exemption criteria are described in Appendix V).

Quail Valley On-site Septic Tank-Subsurface Disposal System Prohibition
(Amended by Resolution No. R8-2006-0024, October 3, 2006)

On October 3, 2006, the Board adopted a Basin Plan amendment prohibiting the use of septic tank-subsurface disposal systems in the Quail Valley area of Riverside County in accordance with the following:

Effective Date: August 20, 2007

(1) The discharge of waste from new on-site septic tank-subsurface disposal systems in the Quail Valley area of Riverside County is prohibited, if a sewer system is available to serve the lot. Except as provided in (2) below, the discharge of waste from existing on-site septic tank-subsurface disposal systems in the Quail Valley area of Riverside County is prohibited, if a sewer system is available to serve the lot.

(2) All existing septic tank-subsurface disposal systems shall connect to the sewer designed to serve the lot within one year of sewer installation. New septic tank-subsurface disposal systems shall not be permitted in Quail Valley if a sewer system is available to serve the lot.

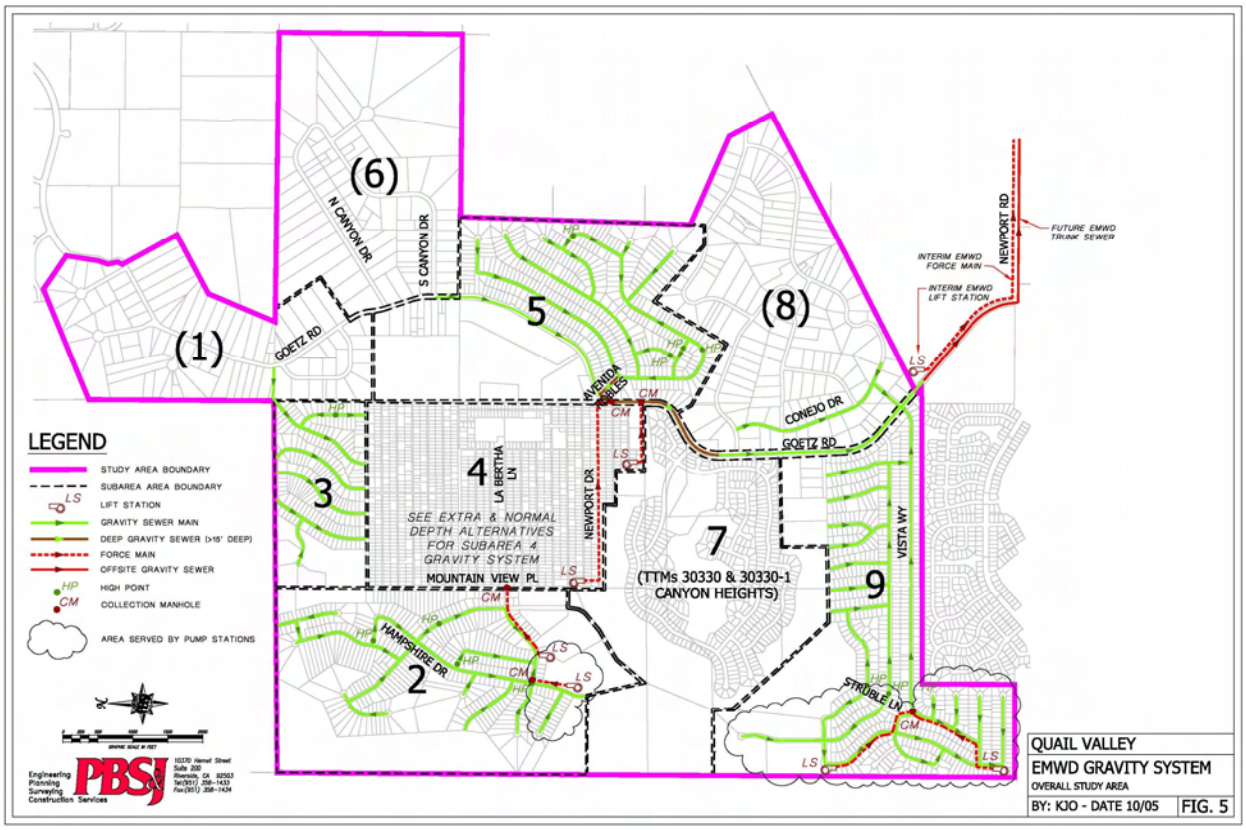
(3) This prohibition applies to all areas within Quail Valley as depicted on a detailed map maintained in the Regional Board office (Quail Valley Septic Tank Prohibition Boundary Map). A copy of the boundary map is attached as Attachment "A".

(4) Upon the effective date of this prohibition, new septic systems in Quail Valley (see Attachment "A") shall not be permitted, except as follows:

(a) For areas in Quail Valley other than areas 4 and 9, new systems may be permitted, provided the Regional Board finds that the sewering agency proposes, and is on schedule, to provide sewer service for areas 4 and 9 within five years of the effective date of this amendment, and if the lot proposed for a septic system meets all Board and Riverside County requirements.

(b) If the Board finds that the sewering agency cannot meet the schedule identified in 1(4)(a), above, but that design of the project proceeds nonetheless, then, upon completion of the sewer system design, new systems may be permitted in areas other than 4 and 9, if all Board and Riverside County requirements are met.

ATTACHMENT "A": MAP OF QUAIL VALLEY PROHIBITION AREA
FIGURE 5-1a



Water Quality Certification (Section 401)

In addition to the issuance of NPDES permits or waste discharge requirements, the Regional Board acts to protect the quality of surface waters through water quality certification as specified in Section 401 of the Clean Water Act (33 USC 466 *et seq.*). Section 401 requires that any person applying for a federal permit or license for an activity which may result in a discharge of pollutants into waters of the nation must obtain a state water quality certification verifying that the activity complies with the state's water quality standards.

No license or permit can be granted until certification required by Section 401 has been obtained or waived. Further, no license or permit can be granted if certification has been denied by the state. Similarly, coastal states must concur that the activity meets the requirements of the Coastal Zone Management Program of the state or waive their right to concur by not taking action by a specified time.

The following permits or licenses require 401 Certification:

- NPDES permits issued by US EPA under Section 402 of the CWA (33 USC 466 *et seq.*);
- CWA Section 404 (33 USC 466 *et seq.*) permits issued by the U.S. Army Corps of Engineers;
- Permits issued under Sections 9 and 10 of the Rivers and Harbors Act (33 USC 466 *et seq.*) (for activities which may affect navigation);
- Licenses for hydroelectric power plants issued by the Federal Energy Regulatory Commission under the Federal Power Act; and
- Licenses issued by the Nuclear Regulatory Commission.

To date, the Regional Board's water quality certification activities have focused on applications for permits for the discharge of dredged or fill material to surface waters. These permits are issued by the U.S. Army Corps of Engineers (Section 404 permits) subject to any conditions imposed by the Regional Board.

The Section 404 program is administered at the federal level by the U.S. Army Corps of Engineers and the US EPA. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service have important advisory roles. The U.S. Army Corps of Engineers has the primary responsibility for the permit program and is authorized, after notice and opportunity for a public hearing, to issue permits of the discharge of dredged or fill material. US EPA developed the regulations under which permits may be granted. States may assume the responsibility for implementation of the 404 permit program, however, California has not done so.

The Regional Board evaluates the projects for which 404 permits are requested and determines whether to deny water quality certification, issue a certification with conditions, or waive the certification. A certification is usually denied if the activity violates any water

quality standard; if the activity may violate standards, a conditional certification is given; when the activity does not violate any standard, a 401 waiver may be given.

Presently, the executive Director of the State Board issues all water quality certifications in accordance with recommendations from the Regional Board.

MONITORING AND ENFORCEMENT

Waste discharge requirements issued by the Regional Board include requirements for monitoring of discharges. In some cases, the receiving waters must be monitored by the dischargers. The results of the "self monitoring" programs are reported to the Board and are used to determine compliance with the waste discharge requirements (see Chapter 6).

The California Water Code provides the Regional Board with a number of enforcement remedies for violations of requirements. Enforcement actions include Time Schedules, Cease and Desist Orders, Cleanup and Abatement Orders, and the issuance of Administrative Civil Liability Complaints.

Time Schedules

When a discharge is taking place or threatening to occur that will cause a violation of a Regional Board requirement, a discharger may be required to submit a detailed compliance plan and schedule (California Water Code Section 13300). These schedules may also be required when the waste collection treatment or disposal facility of a discharger are approaching capacity. Time Schedules are adopted by the Regional Board after a public hearing or by the Executive Officer pursuant to his or her authority.

Cease and Desist Order

If discharge prohibitions or requirements of the State Board or Regional Board are violated or threatened to be violated, the Regional Board may adopt a Cease and Desist order (California Water Code Section 13301) requiring the discharger to comply in accordance with a time schedule, or if the violation is threatened, to take appropriate remedial or preventive action. Cease and Desist orders may restrict or prohibit the volume, type or concentration of waste added to community sewer systems, if existing or threatened violations of waste discharge requirements occur. Cease and Desist Orders may specify interim time schedules as well as limitations that must be complied with until full compliance is achieved. Cease and Desist orders are adopted by the Regional Board after a public hearing.

Cleanup and Abatement Order

The Board may order *any* person who has discharged, is discharging or is threatening to discharge wastes that will result in a violation of waste discharge requirements or other order or prohibition of the State Board or Regional Board, to cleanup and abate the effects

of the discharge or to take appropriate remedial action (California Water Code 13304). The Regional Board has delegated issuance of these orders to its Executive Officer; Cleanup and Abatement orders do not require Board action, but are often brought before the Regional Board for consideration.

Administrative Civil Liability

The Regional Board may also issue Administrative Civil Liability complaints (ACLs) to those who intentionally or negligently violate enforcement orders of the Board, or who intentionally or negligently discharge wastes in violation of any order, prohibition or requirement of the Board where the discharge causes conditions of pollution or nuisance (California Water Code Sections 13350). ACLs may also be issued in cases where a person fails to submit reports requested by the Board (California Water Code Sections 13261 and13268) or when a person discharges waste without first having filed the appropriate Report of Waste Discharge (ROWD) (California Water Code Section113265). ACLs may be issued pursuant to California Water Code Section 13385 for violations of any Regional Board prohibition or requirement implementing specified sections of the Clean Water Act, or any requirement in an approved pretreatment program, without showing intent or negligence. Issuance of ACLs is delegated to the Board's Executive Officer, but, all administrative civil liability settlements must be affirmed by the Board. Amounts of administrative civil liability that the Board can impose range up to $10,000 per day of violation. The Water Code also provides that a superior court may impose civil liability assessments in substantially higher amounts. The Regional Board may conduct a hearing if a discharger contests the imposition of the Administrative Civil Liability.

The Water Code provides that a Regional Board may request the State Attorney General to petition a superior court to enforce orders and complaints issued by the Board. The Regional Board may also request that the Attorney General seek injunctive relief in specific situations, such as violations of Cease and Desist orders or discharges which cause or threaten to cause a nuisance or pollution that could result in a public health emergency (California Water Code Sections 13331 and 13340).

TOTAL DISSOLVED SOLIDS AND NITROGEN MANAGEMENT (Amended by Resolution No. R8-2004-0001, December 22, 2004)

1. Background

The 1975 and 1983 Basin Plans for the Santa Ana River Basin reported that the most serious problem in the basin was the build up of dissolve minerals, or salts, in the ground and surface waters. Sampling and computer modeling of groundwaters showed that the levels of dissolved minerals, generally expressed as total dissolved solids (TDS) or total filterable residue (TFR), were exceeding water quality objectives or would do so in the future unless appropriate controls were implemented. Nitrogen levels in the Santa Ana River, largely in the form of nitrate, were likewise projected to exceed objectives. As was discussed in Chapter 4, high levels of TDS and nitrate adversely affect the beneficial uses

of ground and surface waters. The mineralization of the Region's waters, and its impact on beneficial uses, remains a significant problem.

Each use of water adds an increment of dissolved minerals. Significant increments of salts are added by municipal and industrial use, and the reuse and recycling of the wastewater generated as it moves from the hydrologically higher areas of the Region to the ocean. Wastewater and recycled water percolated into groundwater management zones is typically pumped and reused a number of times before reaching the ocean, resulting in increased salt concentrations. The concentration of dissolved minerals can also be increased by evaporation or evapotranspiration. One of the principal causes of the mineralization problem in the Region is historic irrigated agriculture, particularly citrus, which in the past required large applications of water to land, causing large losses by evaporation and evapotranspiration. TDS and nitrate concentrations are increased both by this reduction in the total volume of return water and by the direct application of these salts in fertilizers. Dairy operations, which began in the Region in the 1950's and continue today, also contribute large amounts of salts to the basin.

The implementation chapters of the 1975 and 1983 Basin Plans focused on recommended plans to address the mineralization problem. The 1975 Plan initiated a total watershed approach to salt source control. Both Plans called for controls on salt loadings from all water uses including residential, commercial, industrial and agricultural (including dairies). The plans included: measures to improve water supply quality, including the import of high quality water from the State Water Project; waste discharge regulatory strategies (e.g., wasteload allocations, allowable mineral increments for uses of water); and recharge projects and other remedial programs to correct problems in specific areas. These Plans also carefully limited reclamation activities and the recycling of wastewaters into the local groundwater basins.

These salt management plans were developed using a complex set of groundwater computer models and programs, known collectively as the Basin Planning Procedure (BPP).

The modeling work focused on the upper Santa Ana Basin and, to a lesser extent, on the San Jacinto Basin, where the BPP was less developed and refined. The constituent modeled in those Plans was TDS.

For the salt management plan specified initially in the 1995 Basin Plan, when the Plan was adopted and approved in 1994 and 1995, modeling was conducted with the BPP for both the upper Santa Ana and San Jacinto Basins. However, most of the attention was again directed to the upper Santa Ana Basin, for which significant improvements to the BPP were made under a joint effort by the Santa Ana Watershed Project Authority, the Santa Ana River Dischargers Association, the Metropolitan Water District of Southern California, and the Regional Board. The most significant change to the BPP was the addition of a nitrogen modeling component so that projections of the nitrogen (nitrate) quality of groundwaters could be made, in addition to TDS. This enabled the development of a management plan for nitrogen, as well as TDS.

The BPP has not been used to model groundwater quality conditions in the lower Santa Ana Basin. For that Basin, the Regional Board's TDS and nitrogen management plans have relied, in large part, on the control of the quality of the Santa Ana River flows, which are a major source of recharge in the Basin. As discussed in Chapter 4, most of the baseflow (80-90%) is composed of treated sewage effluent; it also includes nonpoint source inputs and rising groundwater. Baseflow generally provides 70% or more of the water recharged in the Orange County Management Zone. In rare wet years, baseflow accounts for a smaller, but still significant, percentage (40%) of the recharge on an annual basis. Therefore, to protect Orange County groundwater, it is essential to control the quality of baseflow. To do so, baseflow TDS and nitrogen objectives are specified in this Plan for Reach 3 of the River. Wasteload allocations have been established and periodically revised to meet those and other Santa Ana River objectives.

For the 1983 Basin Plan, QUAL-II, a surface water model developed initially by the US EPA, was calibrated for the Santa Ana River and used to make detailed projections of River quality (TDS and nitrogen) and flow. The model was used to develop wasteload allocations for TDS and nitrogen discharges to the River that were approved as part of that Plan. (Wasteload allocations are discussed in detail in Section III of this Chapter). An updated version of the model, QUAL-2e, was used to revise these wasteload allocations, which were included as part of the initial salt management plan in the 1995 Basin Plan. The models were used to integrate the quantity and quality of inputs to the River from various sources, including the headwaters, municipal wastewater treatment plant discharges, and rising groundwater, based on the water supply and wastewater management plans used in the BPP. Data on rising groundwater quality and quantity were provided to the QUAL-II/2e models by the BPP. As with the BPP, the QUAL-II/2e model projections were used to identify water quality problems and to assess the effectiveness of changes in TDS and nitrogen management strategies.

II. Update of the Total Dissolved Solids/Nitrogen Management Plan

The studies conducted to update the TDS/Nitrogen Management Plans in the 1983 and 1995 Basin Plans were not designed to validate or revise the TDS or nitrate-nitrogen objectives for groundwater. Rather, the focus of the studies was to determine how best to meet those established objectives. During public hearings to consider adoption of the 1995 Basin Plan, a number of water supply and wastewater agencies in the region commented that the TDS and nitrate-nitrogen objectives for groundwater should be reviewed, considering the estimated cost of complying with them (several billion dollars). In response, the Regional Board identified the review of these objectives as a high Basin Plan triennial review priority, and stakeholders throughout the Region agreed to provide sufficient resources to perform the necessary studies. In December 1995, these agencies, under the auspices of the Santa Ana Watershed Project Authority (SAWPA), formed the Nitrogen/Total Dissolved Solids (TDS) Task Force (Task Force) to undertake a watershed-wide study (Nitrogen/TDS Study) to review the groundwater objectives and the TDS/Nitrogen Management Plan in the Basin Plan as a whole. SAWPA managed the study, and Risk Sciences and Wildermuth Environmental, Inc., served as project consultants. Major tasks included review of the groundwater

subbasin boundaries, development of recommendations for revised boundaries, development of appropriate TDS and nitrate-nitrogen objectives for the subbasins (management zones), and update of the TDS and TIN wasteload allocations to ensure compliance with both the established objectives for the Santa Ana River and tributaries and the recommended groundwater objectives. A complete list of all tasks completed in Phases 1A & 1B and 2A & 2B is included in the Appendix. The Task Force effort resulted in substantive proposed changes to the Basin Plan, including new groundwater management zones (Chapter 3) and new nitrate-nitrogen and TDS objectives for the management zones (Chapter 4). These changes necessitated the update and revision of the TDS/Nitrogen Management Plan, which is described below.

The Task Force studies, including the technical methods employed, are documented in a series of reports (Ref. 1-5). The Task Force studies differed from prior efforts to review the TDS and nitrogen management plans in that the BPP was not utilized. A revised model approach, not involving use of the QUAL-2e model, was used to update the wasteload allocations for the Santa Ana River. The Task Force concluded that the BPP no longer remained a viable tool for water quality planning purposes, and also concluded that the development of a new model was beyond the scope and financial capabilities of the Task Force. The efficacy of modeling to formulate and update salt management plans in this Region has been well demonstrated; in the future, priority should be given to the development of a new model that would assist with future Basin Plan reviews.

III. TDS/Nitrogen Management Plan

TDS and nitrogen management in this Region involves both regulatory actions by the Regional Board and actions by other agencies to control and remediate salt problems. Regulatory actions include the adoption of appropriate TDS and nitrogen limitations in requirements issued for waste disposal and municipal wastewater recycling, and the adoption of waste discharge prohibitions. These regulatory steps are described earlier in this Chapter. Actions by other agencies include projects to improve water supply quality and the construction of groundwater desalters and brine lines to remove highly saline wastes from the watershed. The following sections discuss these programs in greater detail.

A. Water Supply Quality

Water supply quality has a direct affect on the quality of discharges from municipal wastewater treatment plants, discrete industrial discharges, returns to groundwater from homes using septic tank systems, returns from irrigation of landscaping in sewered and unsewered areas, and returns to groundwater from commercial irrigated agriculture. Water supply quality is an important determinant of the extent to which wastewater can be reused and recycled without resulting in adverse impacts on affected receiving waters. This is particularly true for TDS, since it is a conservative constituent, less likely than nitrogen to undergo transformation and loss as wastewater is discharged or recycled, and typically more difficult than nitrogen to treat and remove.

Water supplies cannot be directly regulated by the Regional Board; however, limitations in waste discharge requirements, including NPDES permits, may necessitate efforts to improve source water quality. These efforts may include drilling new wells, implementing alternative blending strategies, importing higher quality water when it is available, and constructing desalters to create or augment water supplies.

Imported water supplies are an important part of salt management strategies in the region from both a quantity and quality standpoint. Imported water is needed by many agencies to supplement local sources and satisfy ever-increasing demands. The import of high quality State Water Project water, with a long-term TDS average less than 300 mg/L, is particularly essential. The use of State Water Project water allows maximum reuse of water supplies without aggravating the mineralization problem. It is also used for recharge and replenishment to improve the quality of local water supply sources, which might otherwise be unusable. Thus, the use of high quality State Water Project water in the Region has water supply benefits that extend far beyond the actual quantity imported.

In some cases, the TDS quality of water supplies in a wastewater treatment service area may make it infeasible for the discharger to comply with TDS limits specified in waste discharge requirements. In other cases, the discharger may add chemicals that enable compliance with certain discharge limitations, but also result in TDS concentrations in excess of waste discharge requirements. The Board recognizes these problems and incorporates provisions in waste discharge requirements to address them. These and other aspects of the Board's regulatory program are described next.

B. TDS and Nitrogen Regulation

As required by the Water Code (Section 13263), the Regional Board must assure that its regulatory actions implement the Basin Plan. Waste discharge requirements must specify limitations that, when met, will assure that water quality objectives will be achieved. Where the quality of the water receiving the discharge is better than the established objectives, the Board must assure that the discharge is consistent with the state's antidegradation policy (SWRCB Resolution No. 68-16). The Regional Board must also separately consider beneficial uses, and where necessary to protect those uses, specify limitations more stringent than those required to meet established water quality objectives. Of course, these obligations apply not only to TDS and nitrogen but also to other constituents that may adversely affect water quality and/or beneficial uses.

As indicated previously, the Regional Board's regulatory program includes the adoption of waste discharge prohibitions. The Board has established prohibitions on discharges of excessively saline wastes and, in certain areas, on discharges from subsurface disposal systems (see "Waste Discharge Prohibitions," above). The Board has also adopted other requirements pertaining to the use of subsurface disposal system use, both to assure public health protection and to address TDS and nitrogen-related concerns. These include the Regional Board's "Guidelines for Sewage Disposal from Land Developments" [Ref. 6], which are hereby incorporated by reference, and the

minimum lot size requirements for septic system use (see Nonpoint Source section of this Chapter).

However, the principal TDS and nitrogen regulatory tool employed by the Regional Board is the issuance of appropriate discharge requirements, in conformance with the legal requirements identified above. Several important aspects of this permitting program warrant additional discussion:

1. Salt assimilative capacity
2. Mineral increments
3. Nitrogen loss coefficients
4. TDS and nitrogen wasteload allocations
5. Wastewater reclamation
6. Special considerations – subsurface disposal systems

1. Salt Assimilative Capacity

Some waters in the Region have assimilative capacity for additions of TDS and/or nitrogen; that is, wastewaters with higher TDS/nitrogen concentrations than the receiving waters are diluted sufficiently by natural processes, including rainfall or recharge, such that the TDS and nitrogen objectives of the receiving waters are met. The amount of assimilative capacity, if any, varies depending on the individual characteristics of the waterbody in question.

The adoption of new groundwater management zone boundaries (Chapter 3) and new TDS and nitrate-nitrogen objectives for these management zones (Chapter 4), pursuant to the work of the Nitrogen/TDS Task Force, necessitated the re-evaluation of the assimilative capacity findings initially incorporated in the 1995 Basin Plan. To conduct this assessment, the Nitrogen-TDS study consultant calculated current ambient TDS and nitrate-nitrogen water quality using the same methods and protocols as were used in the calculation of historical ambient quality (see Chapter 4). The analysis focused on representing current water quality as a 20-year average for the period from 1978 through 1997. [Ref. 1]. For each management zone, current TDS and nitrate-nitrogen water quality were compared to water quality objectives (historical water quality)[1]. Assimilative capacity was also assessed relative to the "maximum benefit" objectives established for certain management zones. If the current quality of a management zone is the same as or poorer than the specified water quality objectives, then that management zone does not have assimilative capacity. If the current quality is better than the specified water quality objectives, then that management zone has assimilative capacity. The difference between the objectives and current quality is the amount of assimilative capacity available.

[1] As noted in Chapter 4, ammonia-nitrogen and nitrite-nitrogen data were also included in the analysis, where available. This occurred for a very limited number of cases and ammonia-nitrogen and nitrite-nitrogen concentrations were insignificant.

Tables 5-3 and 5-4 show the water quality objectives and the current ambient quality for TDS and nitrate-nitrogen, respectively, for each management zone. These tables also list the TDS and nitrate-nitrogen assimilative capacity of the management zones, if any. Of the thirty-seven (37) management zones, twenty-seven (27) lack assimilative capacity for TDS, and thirty (30) lack assimilative capacity for nitrate-nitrogen (this assumes the "maximum benefit" objectives are in effect). There are five (5) management zones for which there were insufficient data to calculate TDS and/or nitrate-nitrogen water quality objectives and, therefore, assimilative capacity. For regulatory purposes, these 5 management zones are assumed to have no assimilative capacity. Dischargers to these management zones may demonstrate that assimilative capacity for TDS and/or nitrate-nitrogen is available. If the Regional Board approves this demonstration, then the discharger would be regulated accordingly.

As indicated in Table 5-3, it will be assumed for most regulatory purposes that there is no assimilative capacity for TDS in the Orange County groundwater management zone. The 20 mg/L of management zone-wide TDS assimilative capacity calculated for this zone will be allocated to discharges resulting from groundwater remediation and other legacy contaminant removal projects implemented within the Orange County Management Zone.

Tables 5-3 and 5-4 show the assimilative capacity available in management zones for which "maximum benefit" objectives have been specified. As described in Chapter 4 and later in this Chapter, the application of these objectives is contingent on the implementation of certain projects and programs by specific dischargers as part of their maximum benefit demonstrations. Assimilative capacity created by these projects/programs will be allocated to the party(-ies) responsible for implementing them.

Chapter 3 delineates the Prado Basin Management Zone, and Chapter 4 identifies the applicable TDS and nitrogen objectives for this Zone (the objectives for the surface waters that flow in this Zone). No assimilative capacity exists in this zone.

These assimilative capacity findings are significant from a regulatory perspective. If there is assimilative capacity in the receiving waters for TDS, nitrogen or other constituents, a waste discharge may be of poorer quality than the objectives for those constituents for the receiving waters, as long as the discharge does not cause violation of the objectives and provided that antidegradation requirements are met. However, if there is no assimilative capacity in the receiving waters, such as the management zones identified in Tables 5-3 and 5-4, the numerical limits in the discharge requirements cannot exceed the receiving water objectives or the degradation process would be accelerated.[2] This rule was expressed clearly by the State Water Resources

[2] A discharger may conduct analyses to demonstrate that discharges at levels higher than the objectives would not cause or contribute to the violation of the established objectives. See, for example, the discussion of wasteload allocations for discharges to the Santa Ana River and its tributaries (Section III. B. 4.) If the Regional Board approves this demonstration, then the discharger would be regulated accordingly.

Control Board in a decision regarding the appropriate TDS discharge limitations for the Rancho Caballero Mobilehome park located in the Santa Ana Region (Order No. 73-4, the so called “Rancho Caballero decision”) [Ref. 7]. However, this rule is not meant to restrict overlying agricultural irrigation, or similar activities, such as landscape irrigation. Even in management zones without assimilative capacity, groundwater may be pumped, used for agricultural purposes in the area and returned to the management zone from which it originated.

In regulating waste discharges to waters with assimilative capacity, the Regional Board will proceed as follows. (see also Section III.B.6., Special Considerations – Subsurface Disposal Systems).

If a discharger proposes to discharge wastes that are at or below (i.e., better than) the current ambient TDS and/or nitrogen water quality, then the discharge will not be expected to result in the lowering of water quality, and no antidegradation analysis will be required. TDS and nitrogen objectives are expected to be met. Such discharges clearly implement the Basin Plan and the Board can permit them to proceed. Of course, other pertinent requirements, such as those of the California Environmental Quality Act (CEQA) must also be satisfied. For groundwater management zones, current ambient quality is as defined in Table 5-3 and Table 5-4, or as these Tables may be revised (through the Basin Plan amendment process) pursuant to the detailed monitoring program to be conducted by dischargers in the watershed (see Section V., Salt Management Plan – Monitoring Program Requirements).

If a discharger proposes to discharge wastes that exceed the current ambient TDS and/or nitrogen quality, then the Board will require the discharger to conduct an appropriate antidegradation analysis. The purpose of this analysis will be to demonstrate whether and to what extent the proposed discharge would result in a lowering of ambient water quality in affected receiving waters. That is, to what extent, if any, would the discharge use available assimilative capacity. If the discharger demonstrates that no lowering of water quality would occur, then antidegradation requirements are met, water quality objectives will be achieved, and the Regional Board can permit such discharges to proceed. If the analysis indicates that a lowering of current ambient water quality would occur, other than on a minor or temporally or spatially limited basis, then the discharger must demonstrate that: (1) beneficial uses would continue to be protected and the established water quality objectives would be met; and (2) that the resultant water quality would be consistent with maximum benefit to the people of California; and, (3) that best practicable treatment or control has been implemented. Best practical treatment or control means levels that can be achieved using best efforts and reasonable control methods. For affected receiving waters, the discharger must estimate the amount of assimilative capacity that would be used by the discharger. The Regional Board would employ its discretion in determining the amount of assimilative capacity that would be allocated to the discharger. Rather than allocating assimilative capacity, the Regional Board may require the discharger to mitigate or offset discharges that would result in the lowering of water quality.

Again, discharges to waters without assimilative capacity for TDS and/or nitrogen must be held to the objectives of the affected receiving waters (with the caveat identified in footnote 3 previous page). In some cases, compliance with management zone TDS objectives for discharges to waters without assimilative capacity may be difficult to achieve. Poor quality water supplies or the need to add certain salts during the treatment process to achieve compliance with other discharge limitations (e.g., addition of ferric chloride) could render compliance with strict TDS limits very difficult. The Regional Board addresses such situations by providing dischargers with the opportunity to participate in TDS offset programs, such as the use of desalters, in lieu of compliance with numerical TDS limits. These offset provisions are incorporated into waste discharge requirements. Provided that the discharger takes all reasonable steps to improve the quality of the waters influent to the treatment facility (such as through source control or improved water supplies), and provided that chemical additions are minimized, the discharger can proceed with an acceptable program to offset the effects of TDS discharges in excess of the permit limits.

Similarly, compliance with the nitrate-nitrogen objectives for groundwaters specified in this Plan would be difficult in many cases. Offset provision may apply to nitrogen discharges as well.

An alternative that dischargers might pursue in these circumstances is revision of the TDS or nitrogen objectives, through the Basin Plan amendment process. Consideration of less stringent objectives would necessitate comprehensive antidegradation review, including the demonstrations that beneficial uses would be protected and that water quality consistent with maximum benefit to the people of the State would be maintained. As discussed in Chapter 4 and later in this Chapter, a number of dischargers have pursued this “maximum benefit objective” approach, leading to the inclusion of “maximum benefit” objectives and implementation strategies in this Basin Plan. Discharges to areas where the “maximum benefit” objectives apply will be regulated in conformance with these implementation strategies. Any assimilative capacity created by the maximum benefit programs will be allocated to the parties responsible for implementing them.

Table 5-3
Total Dissolved Solids (TDS) Assimilative Capacity Findings

Management Zone	Water Quality Objective (mg/L)	Current Ambient (mg/L)	Assimilative Capacity (mg/L)
UPPER SANTA ANA RIVER BASIN			
Beaumont – "max benefit" [3]	330	290	40
Beaumont – "antideg"	230	290	None
Bunker Hill A	310	350	None
Bunker Hill B	330	260	70
Colton	410	430	None
Chino North – "max benefit"	420	300	120
Chino 1 – "antideg"	280	310	None
Chino 2 – "antideg"	250	300	None
Chino 3 – "antideg"	260	280	None
Chino South	680	720	None
Chino East	730	760	None
Cucamonga – "max benefit" [3]	380	260	120
Cucamonga – "anti-deg"	210	260	None
Lytle	260	240	20
Rialto	230	230	None
San Timoteo – "max benefit" [3]	400	300	100
San Timoteo – "anti-deg"	300	300	None
Yucaipa – "max benefit" [3]	370	330	40
Yucaipa – "antideg"	320	330	None
MIDDLE SANTA ANA RIVER BASIN			
Arlington	980	--[1]	None
Bedford	--[1]	--[1]	None
Coldwater	380	380	None
Elsinore	480	480	None
Lee Lake	--[1]	--[1]	None
Riverside A	560	440	120
Riverside B	290	320	None
Riverside C	680	760	None
Riverside D	810	--[1]	None
Riverside E	720	720	None
Riverside F	660	580	80
Temescal	770	780	None
Warm Springs	--[1]	--[1]	None
SAN JACINTO RIVER BASINS			
Canyon	230	220	10
Hemet South	730	1030	None
Lakeview – Hemet North	520	830	None
Menifee	1020	3360	None
Perris North	570	750	None
Perris South	1260	3190	None
San Jacinto Lower	520	730	None
San Jacinto Upper	320	370	None
LOWER SANTA ANA RIVER BASINS			
Irvine	910	910	None
La Habra	--[1]	--[1]	None
Orange County[2]	580	560	None[2]
Santiago	--[1]	--[1]	None

[1] Not enough data to estimate TDS concentrations; management zone is presumed to have no assimilative capacity. If assimilative capacity is demonstrated by an existing or proposed discharger, that discharge would be regulated accordingly.

[2] For the purposes of regulating discharges other than those associated with projects implemented within the Orange County Management Zone to facilitate remediation projects and/or to address legacy contamination, no assimilative capacity is assumed to exist

.[3] Assimilative capacity created by "maximum benefit" objectives is allocated solely to agency(ies) responsible for "maximum benefit" implementation (see Section VI.).

Table 5-4
Nitrate Nitrogen (NO_3-N) Assimilative Capacity Findings

Management Zone	Water Quality Objective (mg/L)	Current Ambient (mg/L)	Assimilative Capacity (mg/L)
UPPER SANTA ANA RIVER BASINS			
Beaumont – "max benefit" [3]	5.0	2.6	2.4
Beaumont – "antideg"	1.5	2.6	None
Bunker Hill A	2.7	4.5	None
Bunker Hill B	7.3	5.5	1.8
Colton	2.7	2.9	None
Chino North – "max benefit" [3]	5.0	7.4	None
Chino 1 – "antideg"	5.0	8.4	None
Chino 2 – "antideg"	2.9	7.2	None
Chino 3 – "antideg"	3.5	6.3	None
Chino South	4.2	8.8	None
Chino East	10	29.1	None
Cucamonga – "max benefit" [3]	5.0	4.4	0.6
Cucamonga – "anti-deg"	2.4	4.4	None
Lytle	1.5	2.8	None
Rialto	2.0	2.7	None
San Timoteo – "max benefit" [3]	5.0	2.9	2.1
San Timoteo – "anti-deg"	2.7	2.9	None
Yucaipa – "max benefit" [3]	5.0	5.2	None
Yucaipa – "antideg"	4.2	5.2	None
MIDDLE SANTA ANA RIVER BASINS			
Arlington	10.0	--[1]	None
Bedford	--[1]	--[1]	None
Coldwater	1.5	2.6	None
Elsinore	1.0	2.6	None
Lee Lake	--[1]	--[1]	None
Riverside A	6.2	4.4	1.8
Riverside B	7.6	8.0	None
Riverside C	8.3	15.5	None
Riverside D	10.0	--[1]	None
Riverside E	10.0	14.8	None
Riverside F	9.5	9.5	None
Temescal	10.0	13.2	None
Warm Springs	--[1]	--[1]	None
SAN JACINTO RIVER BASINS			
Canyon	2.5	1.6	0.9
Hemet South	4.1	5.2	None
Lakeview – Hemet North	1.8	2.7	None
Menifee	2.8	5.4	None
Perris North	5.2	4.7	0.5
Perris South	2.5	4.9	None
San Jacinto Lower	1.0	1.9	None
San Jacinto Upper	1.4	1.9	None
LOWER SANTA ANA RIVER BASINS			
Irvine	5.9	7.4	None
La Habra	--[1]	--[1]	None
Orange County	3.4	3.4	None
Santiago	--[1]	--[1]	None

[1] Not enough data to estimate nitrate nitrogen concentrations
[2] Assimilative capacity created by "maximum benefit" objectives is allocated solely to agency(ies) responsible for "maximum benefit" implementation (see Section VI.).

2. Mineral Increments

The fundamental philosophy of TDS management plans in Santa Ana Region Basin Plans to date has been to allow a reasonable use of the water, to treat the wastewater generated appropriately, and to allow it to flow downstream (or to lower groundwater basins) for reuse. "Reasonable use" is defined in terms of appropriate mineral increments that can be applied to water supply quality in setting discharge limitations.

The Department of Water Resources has recommended values for the maximum use incremental additions of specific ions that should be allowed through use, based on detailed study of water supplies and wastewater quality in the Region [Ref. 8]. Their recommendations are as follows:

Sodium	70 mg/L
Sulfate	40 mg/L
Chloride	65 mg/L
TDS	250 mg/L
Total Hardness	30 mg/L

These mineral increments were incorporated into the 1983 Basin Plan. They will be incorporated into waste discharge requirements when appropriate and necessary.

3. Nitrogen Loss Coefficients

The Regional Board's regulatory program has long recognized that some nitrogen transformation and loss can occur when wastewater is discharged to surface waters or reused for landscape irrigation. For example, the Total Inorganic Nitrogen (TIN) wasteload allocation adopted for the Santa Ana River in 1991 included unidentified nitrogen losses in the surface flows in Reach 3 of the River. Waste discharge requirements have allowed for nitrogen losses due to plant uptake when recycled water is used for irrigation.

In contrast, nitrogen has been considered a conservative constituent in the subsurface, not subject to significant transformation or loss, and no such losses have been identified or assumed for regulatory purposes.

One of the tasks included in the Nitrogen/TDS Task Force studies leading to the 2004 update of the N/TDS Management Plan was the consideration of subsurface transformation and loss. One objective of this task was to determine whether dischargers might be required to incur costs for additional treatment to meet the new groundwater management zone nitrate-nitrogen objectives (Chapter 4), or whether natural, subsurface nitrogen losses could achieve any requisite reductions. The second objective was to develop a nitrogen loss coefficient that could be used with certainty to develop appropriate limits for nitrogen discharges throughout the Region.

To meet these objectives, the Nitrogen/TDS study consultant, Wildermuth

Environmental, Inc. (WEI), evaluated specific recharge operations (e.g., the Orange County Water District recharge ponds overlying the Orange County Forebay), wastewater treatment wetlands (e.g., the Hidden Valley Wildlife Area, operated by the City of Riverside) and Santa Ana River recharge losses (for the Santa Ana River, water quality in reaches where recharge is occurring ("losing" reaches) was compared with local well data). In each case, WEI evaluated long-term (1954 to 1997) nitrogen surface water quality data and compared those values to long-term nitrogen data for adjacent wells.

Based on this evaluation, a range of nitrogen loss coefficients was identified. [Ref. 1] In light of this variability, the N/TDS Task Force recommended that a conservative approach to be taken in establishing a loss coefficient. The Task Force recommended that a region-wide default nitrogen loss of 25% be applied to all discharges that affect groundwater in the Region. The Task Force also recommended that confirmatory, follow-up monitoring be required when a discharger requested and was granted the application of a nitrogen loss coefficient greater than 25%, based on site-specific data submitted by that discharger.

The City of Riverside also presented data to the Task Force regarding nitrogen transformation and losses associated with wetlands. These data support a nitrogen loss coefficient of 50%, rather than 25%, for the lower portions of Reach 3 of the Santa Ana River that overlie the Chino South groundwater management zone. [Ref. 9]. In fact, the data indicate that nitrogen losses from wetlands in this part of Reach 3 can be greater than 90%. However, given the limited database, the Task Force again recommended a conservative approach, i.e., 50% in this area, with confirmatory monitoring.

The 25% and, where appropriate, 50% nitrogen loss coefficients will be used in developing nitrogen discharge limits. These coefficients will be applied to discharges that affect groundwater management zones with and without assimilative capacity.

For discharges to groundwater management zones with assimilative capacity, the TIN discharge limitation would be calculated as follows:

$$\text{TIN Discharge Limit (mg/)} = \frac{\text{management zone nitrate-nitrogen current ambient water quality}}{(1 - \text{nitrogen loss coefficient})}$$

The Regional Board will employ its discretion in specifying a higher TIN limit that would allocate some of the available assimilative capacity.

For discharges to groundwater management zones without assimilative capacity, the TIN discharge limitation would be calculated as follows:

$$\text{TIN Discharge Limit (mg/)} = \text{management zone nitrate-nitrogen water ambient water quality} \div (1 - \text{nitrogen loss coefficient})$$

These coefficients do not apply to discharges specifically addressed by the TIN wasteload allocation, described in the next section, since surface and subsurface nitrogen losses were accounted for in developing this allocation.

4. TDS and Nitrogen Wasteload Allocations for the Santa Ana River

Wasteload allocations for regulating discharges of TDS and total inorganic nitrogen (TIN) to the Santa Ana River, and thence to groundwater management zones recharged by the River, are an important component of salt management for the Santa Ana Basin. As described earlier, the Santa Ana River is a significant source of recharge to groundwater management zones underlying the River and, downstream, to the Orange County groundwater basin. The quality of the River thus has a significant effect on the quality of the Region's groundwater, which is used by more than 5 million people. Control of River quality is appropriately one of the Regional Board's highest priorities.

Sampling and modeling analyses conducted in the 1980's and early 1990's indicated that the TDS and total nitrogen water quality objectives for the Santa Ana River were being violated or were in danger of being violated. Under the Clean Water Act (Section 303(d)(1)(c); 33 USC 466 *et seq.*), violations of water quality objectives for surface waters must be addressed by the calculation of the maximum wasteloads that can be discharged to achieve and maintain compliance. Accordingly, TDS and nitrogen wasteload allocations were developed and included in the 1983 Basin Plan. The nitrogen wasteload allocation was updated in 1991; an updated TDS wasteload allocated was included in the 1995 Basin Plan when it was adopted and approved in 1994/1995.

The wasteload allocations distribute a share of the total TDS and TIN wasteloads to each of the discharges to the River or its tributaries. The allocations are implemented principally through TDS and nitrogen limits in waste discharge requirements issued to municipal wastewater treatment facilities (Publicly Owned Treatment Works or POTWs) that discharge to the River, either directly or indirectly[3]. Nonpoint source inputs of TDS and nitrogen to the River are also considered in the development of these wasteload allocations. Controls on these inputs are more difficult to identify and achieve and may be addressed through the areawide stormwater permits issued to the counties by the Regional Board or through other programs. For example, the Orange County Water District has constructed and operates more than 400 acres of wetlands ponds in the

[3] With some exceptions that may result from groundwater pumping practices, the ground and surface waters in the upper Santa Ana Basin (upstream of Prado Dam) eventually enter the Santa Ana River and flow through Prado Dam. Discharges to these waters will therefore eventually affect the quality of the River and must be regulated so as to protect both the immediate receiving waters and other affected waters, including the River.

Prado Basin Management Zone to remove nitrogen in flows diverted from, and then returned to, the Santa Ana River.

Because of the implementation of these wasteload allocations, the Orange County Water District wetlands and other measures, the TDS and TIN water quality objectives for the Santa Ana River at Prado Dam are no longer being violated, as shown by annual sampling of the River at the Dam by Regional Board staff [Ref. 10A]. However, as part of the Nitrogen/TDS Task Force studies to update the TDS/nitrogen management plan for the Santa Ana Basin, a review of the TDS and TIN wasteload allocations initially contained in this Basin Plan was conducted. In part, this review was necessary in light of the new groundwater management zones and TDS and nitrate-nitrogen objectives for those zones recommended by the N/TDS Task Force (and now incorporated in Chapters 3 and 4). The wasteload allocations were evaluated and revised to ensure that the POTW discharges would assure compliance with established surface water objectives and would not cause or contribute to violation of the groundwater management zone objectives. The Task Force members also recognized that this evaluation was necessary to determine the economic implications of assuring conformance with the new management zone objectives. Economics is one of the factors that must be considered when establishing new objectives (Water Code Section 13241).

WEI performed the wasteload allocation analysis for both TDS and TIN [Ref. 3, 5], In contrast to previous wasteload allocation work, the QUAL-2e model was not used for this analysis. Further, the Basin Planning Procedure (BPP) was not used to provide relevant groundwater data. Instead, WEI developed a projection tool using a surface water flow/quality model and a continuous-flow stirred-tank reactor (CFSTR) model for TDS and TIN. The surface water Waste Load Allocation Model (WLAM) is organized into two major components – RUNOFF (RU) and ROUTER (RO). RU computes runoff from the land surface and RO routes the runoff estimated with RU through the drainage system in the upper Santa Ana watershed. Both the RU and RO models contain hydrologic, hydraulic and water quality components.

To ensure that all hydrologic regimes were taken into account, hydrologic and land use data from 1950 through 1999 were used in the analysis. The analysis took into account the TDS and nitrogen quality of wastewater discharges, precipitation and overland runoff, instream flows and groundwater. Off-stream and in-stream percolation rates, rising groundwater quantity and quality, and the 25% and 50% nitrogen loss coefficients described in the preceding section were also factored into the analysis. The purpose of the modeling exercise was to estimate discharge, TDS and TIN concentrations in the Santa Ana River and tributaries and in stream bed recharge. These data were then compared to relevant surface and groundwater quality objectives to determine whether changes in TDS and TIN regulation were necessary.

Discharges from POTWs to the Santa Ana River or its tributaries were the focus of the analysis. POTW discharges to percolation ponds were not considered. The wasteload allocation analysis assumed, correctly, that these direct groundwater discharges will be

regulated pursuant to the management zone objectives, findings of assimilative capacity and nitrogen loss coefficients identified in Chapter 4 and earlier in this Chapter.

The surface waters evaluated included the Santa Ana River, Reaches 3 and 4, ChinoCreek, Cucamonga/Mill Creek and San Timoteo Creek. Management zones that are directly under the influence of these surface waters and that receive wastewater discharges were evaluated. These included the San Timoteo, Riverside A, Chino South, and Orange County Management Zones[4]. In addition, wastewater discharges to the Prado Basin Management Zone were also evaluated.

WEI performed three model evaluations in order to assess wasteload allocation scenarios through the year 2010. These included a "baseline plan" and two alternative plans ("2010-A" and "2010-B"). The baseline plan generally assumed the TDS and TIN limits and design flows for POTWs specified in waste discharge requirements as of 2001. These limits implemented the wasteload allocations specified in the 1995 Basin Plan when it was approved in 1995. A TDS limit of 550 mg/L was assumed for the Rapid Infiltration and Extraction Facility (RIX) and the analysis assumed a 540 mg/L TDS for the City of Beaumont. The baseline plan also assumed reclamation activities at the level specified in the 1995 Basin Plan, when it was approved. The purpose of the baseline plan assessment was to provide an accurate basis of comparison for the results of evaluation of the two alternative plans. For alternative 2010-A, it was generally assumed that year 2001 discharge effluent limits for TDS and TIN applied to POTW discharges, but projected year 2010 surface water discharge amounts were applied. TDS limits of 550 mg/L and 540 mg/L were again assumed for RIX and the City of Beaumont discharges. The same limited reclamation and reuse included in the baseline plan was assumed (see Table 5-7 in Section III.B.5.). For alternative 2010-B, POTW discharges were also generally limited to the 2001 TDS and TIN effluent limits (RIX was again held to 550 mg/L and Beaumont to 540 mg/L). However, in this case, large increases in wastewater recycling and reuse were assumed (Table 5-7), resulting in the reduced surface water discharges projected for 2010.

Analysis of the model results demonstrated that the TDS and nitrogen objectives of affected surface waters would be met and that water quality consistent with the groundwater management zone objectives would be achieved under both alternatives. It is likely that water supply and wastewater agencies will implement reclamation projects with volumes that are in the range of the two alternatives. The wasteload allocations would be protective throughout the range of surface water discharges identified. The year 2010 flow values are not intended as limits on POTW flows; rather, these flows were derived from population assumptions and agency estimates and are

[4] The City of Beaumont discharges to Coopers Creek in a subunit of the Beaumont Management Zone. However, for analytical and regulatory purposes, it is considered a discharge to the San Timoteo Management Zone since it enters that Management Zone essentially immediately. Recharge of wastewater discharges by YVWD and Beaumont in downgradient management zones that may be affected by surface water discharges (e.g., Bunker Hill B, Colton), is not expected to be significant. Therefore, these management zones were not evaluated as part of the wasteload allocation analysis.

used in the models for quality projections. Surface water discharges significantly different than those projected will necessitate additional model analyses to confirm the propriety of the allocations.

The wasteload allocations for TDS and TIN are specified in Table 5-5. Allocations based on the 2010-A and 2010-B alternatives are shown for both TDS and TIN to reflect the expected differences in surface water discharge flows that would result from variations in the amount of wastewater recycling actually accomplished in the Region. As shown in this Table, irrespective of these differences, the TDS and TIN allocations remain the same.

It is essential to point out that the wasteload allocations in Table 5-5 will be not be used to specify TDS and TIN effluent limitations for wastewater recycling (reuse for irrigation) and recharge by the listed POTWs, but will be applied only to the surface water discharges by these POTWs to the Santa Ana River and its tributaries. TDS and TIN limitations for wastewater recycling and recharge by these POTWs will be based on the water quality objectives for affected groundwater management zones or, where appropriate, surface waters. These limitations are likely to be different than the wasteload allocations specified in Table 5-5.

For most dischargers, the allocations specified in Table 5-5 are the same as those specified in the prior 1995 Basin Plan TDS and TIN wasteload allocations. However, for certain dischargers, two sets of TDS and TIN wasteload allocations are shown in Table 5-5. One set is based on the assumption that the “maximum benefit” objectives defined in Chapter 4 for the applicable groundwater management zones are in effect. The other set of wasteload allocations applies if maximum benefit is not demonstrated and the antidegradation objectives for these management zones are therefore in effect. Maximum benefit implementation is described in Section VI. of this Chapter.

In addition, in contrast to the prior wasteload allocations, a single wasteload allocation for TDS and TIN that would be applied on a flow-weighted average basis to all of the treatment plants operated by the Inland Empire Utilities Agency as a whole is specified. These allocations are based on the water quality objectives for Chino Creek, Reach 1B (550 mg/L TDS and 8 mg/L TIN), to which the IEUA discharges occur, directly or indirectly. As described in Section VI, IEUA proposes to implement a “maximum benefit” program to support the implementation of the “maximum benefit” TDS and nitrate-nitrogen objectives for the Chino North and Cucamonga Management Zones. Separate “maximum benefit” and “antidegradation” wasteload allocations are not necessary for IEUA, as they are for YVWD and Beaumont. This is because the IEUA wasteload allocations are based solely on the Chino Creek objectives and are not contingent on “maximum benefit” objectives or implementation. The IEUA surface water discharges do not affect the groundwater management zones for which “maximum benefit” objectives are to be implemented.

Finally, the TDS wasteload allocation for the RIX facility is less stringent (550 mg/L) than the prior wasteload allocation. The new allocation will assure beneficial use protection and

will not result in a significant lowering of water quality. As such, it is consistent with antidegradation requirements. Given this, the less stringent effluent limitation can be specified pursuant to the exception to the prohibition against backsliding established in the Clean Water Act, Section 303(d)(4)(a).

In most cases, the surface water discharges identified in Table 5-5 will affect or have the potential to affect groundwater management zones without assimilative capacity for TDS and/or nitrogen. As discussed earlier in this section, the lack of assimilative capacity normally dictates the application of the water quality objectives of the affected receiving waters as the appropriate waste discharge limitations. However, as shown in Table 5-5, the TIN and, in some cases, TDS wasteload allocations for these discharges exceed the objectives for these management zones. This is because the wasteload allocation analysis conducted by WEI demonstrated that POTW discharges at these higher-than-objective levels will not result in violations of the TDS and nitrate-nitrogen objectives of the affected management zones, or surface waters. Accordingly, these wasteload allocations will be used for surface water discharge regulatory purposes, rather than the underlying groundwater management zone objectives. If the extensive monitoring program to be conducted by the dischargers (see Salt Management Plan – Monitoring Program Requirements, below) indicates that this strategy is not effective, then this regulatory approach will be revisited and revised accordingly.

Table 5-5

Alternative Wasteload Allocations through 2010
based on "Maximum Benefit" or "Antidegradation" Water Quality[1]

Publicly Owned Treatment Works (POTW)	Alternative 2010A – Reclamation in 1995 Basin Plan			Alternative 2010B – Reclamation Plans Advocated by POTWs/others		
	Surface Water Discharge (MGD)	TDS (mg/L)	TIN (mg/L)	Surface Water Discharge (MGD)	TDS (mg/L)	TIN (mg/L)
Beaumont – "max benefit" [2]	2.3	490	6.0	1.0	490	6.0
Beaumont – "antideg" [2, 3]	2.3	320[3]	4.1[3]	1.0	320[3]	4.1[3]
YVWD – Wochholz – "max benefit"	5.7	540	6.0	0.0	540	6.0
YVWD – Wochholz – "antideg" [3]	5.7	320[3]	4.1[3]	0.0	320[3]	4.1[3]
Rialto	12.0	490	10.0	10.0	490	10.0
RIX	49.4	550	10.0	28.2	550	10.0
Riverside Regional WQCP	35.0	650	13.0	26.1	650	13.0
Western Riverside Co. WWTP	4.4	625	10.0	3.3	625	10.0
EMWD[4]	43	650	10.0	6.0	650	10.0
EVMWD – Lake Elsinore Regional	7.2	700	13.0	2.0	700	13.0
Lee Lake WRF	1.6	650	13.0	1.6	650	13.0
Corona WWTP # 1	3.6	700	10.0	2.0	700	10.0
Corona WWTP # 2	0.2	700	10.0	0.5	700	10.0
Corona WWTP # 3	2.0	700	10.0	0.5	700	10.0
IEUA Facilities [5]	80.0	550	8.0	37.4	550	8.0

1. "Antidegradation" wasteload allocation is the default allocation if the Regional Board determines that "maximum benefit" commitments are not being met.
2. Beaumont discharges to Coopers Creek, a tributary of San Timoteo Creek, Reach 4, it is a *de facto* discharge to San Timoteo Creek/San Timoteo Management Zone.
3. "Antidegradation" wasteload allocations for City of Beaumont and YVWD based on additional model analysis performed by WEI (WEI, October 2002).
4. EMWD discharges are expected to occur only during periods of wet weather.
5. IEUA facilities include the RP#1, Carbon Canyon WRP, RP#4 and RP#5; These facilities are to be regulated as a bubble (see text).

Ammonia

Total inorganic nitrogen is used for regulatory purposes in wasteload allocations and surface water discharge limits. It is the sum of nitrate, nitrite and ammonia. Ammonia dissociates under certain conditions to the toxic un-ionized form. Thus, nitrogen discharges to the Santa Ana River and other surface waters pose a threat to aquatic life and instream beneficial uses, as well as to the beneficial uses of affected groundwater.

Un-ionized ammonia objectives are specified in Chapter 4 of this Basin Plan for warmwater aquatic habitats, such as the Santa Ana River system. Table 5-6 specifies the ammonia limits necessary to achieve these objectives. These limits were derived using QUAL2E, the Colorado Ammonia Model, water quality data on the River and effluent quality.

The un-ionized ammonia objectives have not been approved by the United States Environmental Protection Agency (USEPA), which recommends that the objectives be reviewed and revised based on the Agency's revised national ammonia criteria. A review of the un-ionized ammonia objectives is included in the Regional Board's 2002 Triennial Review Priority List. Any revised objectives and revised ammonia effluent limits needed to achieve the revised objectives will be incorporated in future amendments to this Plan once the requisite review is completed.

Table 5-6
Effluent Limits for Total Ammonia Nitrogen[1]

Discharge Location	Effluent Limit - Total Ammonia Nitrogen[2] (mg/L)	
	Year 1995	Year 2000
San Timoteo Wash	5.0	4.5
Santa Ana River - Reach 4	5.0	4.5
Santa Ana River - Reach 3	5.0	5.0
Chino Creek	5.0	4.5
Mill Creek (Prado Area)	5.0	4.5
Temescal Creek	5.0	4.5
Other **WARM** designated waterbodies	Determined on a case-by-case basis	

[1] Total Ammonia Nitrogen Wasteload Allocation is specified in order to meet the site-specific Santa Ana River un-ionized ammonia objective (See Chapter 4).

[2] Total Ammonia Nitrogen = Un-ionized Ammonia Nitrogen (NH_3-N) Ammonium Nitrogen (NH_4^+-N).

5. Wastewater Reclamation

Reclamation of wastewater for reuse (recycled water) is an important feature of wastewater and water management for the Santa Ana Region. The California Legislature has declared the primary interest of the people of California in the development of facilities to recycle wastewater to supplement existing water supplies and to meet future water demands (Water Code Section 13510-13512). State policy (State Board Resolution No. 77-1) affirms this commitment to encourage recycled water use. However, because reclamation projects tend to add to the salt balance problem in the Region, they must be carefully planned and implemented. The significant benefits that result from such projects, include:

- The total water supply can be effectively increased, reducing the need for imports;
- Wastewater treatment costs can be reduced in some cases. Meeting the level of treatment required for discharge to surface waters may be more expensive than treating the effluent for use in irrigation;
- Stream flows can be established or enhanced, providing aquatic riparian habitat and allowing recreation and other beneficial uses of the stream;
- Downstream delivery commitments can often be met by discharges of appropriately treated wastewater.

Concerns related to wastewater reclamation projects include:

1. Mineral Quality Effects

The mineral quality of the receiving water (surface or groundwater) can be adversely affected. Each cycle of water use increases the salinity of the water. The amount of the increase depends on the type of use; normal domestic use generally adds 200-300mg/L of TDS to the initial concentration. Agricultural use generally doubles the salinity, while industrial uses most often degrade water quality to a level where it may be unsuitable for discharge. Therefore, it is important that the type of reclaimed wastewater use and the likely effects on water quality be evaluated carefully prior to initiating such reuse. Certain waters in the upper Santa Ana Basin do not have assimilative capacity to accept the additional salinity that would be expected to result from reclamation.

2. Public Health Effects

Municipal wastewaters contain significant concentrations of bacteria, viruses, and organics. These wastewaters must be treated extensively to remove pathogens before they can be reclaimed. Stable organics in reclaimed water are also cause for considerable concern. Chlorination of treated wastewater effluents can

produce chlorinated hydrocarbons, some of which are carcinogenic. For this reason, the California State Department of Health Services is concerned with proposals that would return a high proportion of treated wastewater effluent into domestic water supply aquifers. Adequate treatment and dilution of the wastewater is essential. The Department is developing guidelines for the purposed use of reclaimed wastewater for groundwater recharge.

Because of the high percentage of wastewater in river baseflow, the Santa Ana River Water Quality and Health (SARWQH) Study was initiated by OCWD in 1994 to evaluate the use of the Santa Ana River to recharge the Orange County groundwater basin. The goal of the SARWQH Study was to characterize the quality of the Santa Ana River water and the quality of the groundwater basin it recharges. The study included an examination of hydrogeology, microbiology, water chemistry, toxicology and public health. The results of the study indicate that current recharge practices using Santa Ana River water are protective of public health.

3. Land Use Considerations

One of the major problems facing the future of wastewater reclamation is a decrease in the total amount of agricultural land in the basin. As the population of the basin increases, commercial and residential developments eliminate agricultural land and the need for irrigation waters. Some reclaimed wastewater may be used for irrigating landscaping in the new developments, but the volume utilized will almost certainly be reduced.

4. The Prado Settlement

On October 18, 1963, the Orange County Water District filed a class action lawsuit against the water users in the upper Santa Ana Basin, seeking an adjudication of water rights against substantially all the water users in the area tributary to Prado Dam in the Santa Ana River watershed. As a result of the 1969 settlement of this case, the wastewater dischargers in the upper basin are required to provide 42,000 acre-feet at Prado Dam. This can consist of treated wastewater effluent or imported water as well as certain natural flows (*e.g.,* rising water); stormflows are not included. The amount of flow delivered is subject to adjustment based upon the TDS content of the water. Reclamation uses within the upper basin are thus limited to a degree by the need to ensure compliance with this settlement.

Wastewater is presently being reclaimed in the Santa Ana Watershed in a number of different ways:

1. Irrigation of Agricultural Land and Landscaping

Most of the direct reclamation of wastewater in the Region occurs as part of commercial agricultural and landscape irrigation, although this will change as recharge projects using recycled water are implemented (see below). This use is conducted under water reclamation requirements issued by the Regional Board, typically as part of Waste Discharge Requirements and NPDES permits. In the San Jacinto Watershed, most of the wastewater is reclaimed for agricultural uses.

2. Discharge to the Santa Ana River

Although it is not widely considered as such, discharges of treated wastewater to Reaches 3, 4 and 5 of the Santa Ana River constitute the largest single reclamation activity in the Region. These discharges make up as much as 95 percent of the river's dry weather flow and enhance the in-stream beneficial uses of the river throughout its 26-mile length (San Bernardino to Prado Dam). Essentially all of this water is recharged into the groundwater basin in Orange County

3. Groundwater Recharge by Percolation

This type of reclamation is common throughout the Region. Most wastewater treatment plants that do not discharge directly to the River discharge their effluent to percolation ponds. All of the treated wastewater in the upper Santa Ana Basin that is not directly reclaimed for commercial agricultural and landscape irrigation purposes, or discharged directly to the Santa Ana River, is returned to local or downstream groundwater management zones by percolation. In Orange County, reclaimed water is used for greenbelt and landscape irrigation, and injected into coastal aquifers to control sea water intrusion.

Significant additional reclamation activities are planned in the Region, as reflected in Table 5-7. The Chino Basin Watermaster, Inland Empire Utilities Agency, Yucaipa Valley Water District, the City of Beaumont and the San Timoteo Watershed Management Authority propose to implement extensive groundwater recharge projects using recycled water. To accommodate these projects and other water and wastewater management strategies, these agencies have made the requisite demonstrations necessary to support the "maximum benefit" TDS and nitrate-nitrogen water quality objectives specified in this Plan for certain groundwater management zones (see Chapter 4). The recharge projects will provide reliable sources of additional water supply needed to support expected development within the agencies' areas of jurisdiction. These agencies' "maximum benefit" programs are described in detail in Section VI. of this Chapter.

In Orange County, significant reclamation activities include the implementation of the Groundwater Replenishment System, a joint effort of the Orange County Water District and Orange County Sanitation District. Treated wastewater provided by the Sanitation District will receive extensive advanced treatment, including microfiltration, reverse osmosis, and disinfection using ultraviolet light and hydrogen peroxide. In the first phase of the project, approximately 70,000 acre-feet per year of highly treated recycled water will be produced and distributed to groundwater recharge facilities and to injection wells used to maintain a seawater intrusion barrier. The System will enhance both the quality and quantity of groundwater resources, the major source of water supply in the area. It will reduce the need for imported water and prevent, or at least delay, the need for an additional ocean outfall for disposal of the wastewater treated by the Sanitation District. Implementation of the GWR System will be phased**.** Operation of Phase 1 will begin in 2007. Future phases to expand the capacity of the GWR System are possible.

4. Dual Water Supply Systems

Given increasing demands for water supply but diminishing resources, there is great interest in using reclaimed water in office buildings and the like for flushing toilets and urinals. Clearly, the addition of this water supply source must be carefully planned and overseen to prevent public health problems. No dual systems have been implemented as yet in the upper basin; in Orange County, the Irvine Ranch Water District has implemented dual systems (a reclaimed water system in addition to a potable supply) in a number of office buildings in its service area, with the approval of the Department of Health Services and the Regional Board.

The Salt Management Plan draws a balance between the benefits and problems of reclamation by including carefully planned reclamation activities in the watershed. The Recommended Plan provides for reclamation within the upper basin, as shown in Table 5-7. All recycled water recharge projects will be regulated pursuant to the process identified in the discussion regarding assimilative capacity, and in accordance with the “maximum benefit” implementation strategies identified later in this Chapter (see section VI., Maximum Benefit Implementation Plans for Salt Management).

Recycled water used for landscape irrigation deserves special regulatory consideration. As discussed in the section on nitrogen loss coefficients, the Regional Board does not regulate nitrogen in recycled water used for landscape irrigation, recognizing the nitrogen losses that will occur as the result of plant uptake. The Nitrogen /TDS Task Force sponsored update of the TDS/Nitrogen Management Plan demonstrated that it is appropriate also to apply a 25 percent nitrogen loss coefficient to recycled water discharges applied to land to account for subsurface transformation and loss. Nitrogen losses due to plant uptake and subsurface transformation justify the Board’s regulatory approach. With respect to TDS, the

water quality effects of recycled water used for landscape irrigation will be evaluated on a case-by-case basis and regulated accordingly.

6. Special Considerations – Subsurface Disposal Systems

In addition to establishing prohibitions and minimum lot size requirements for the use of subsurface disposal systems for sanitary wastes, the Regional Board issues waste discharge requirements where necessary to assure the protection of water quality and public health. In most cases, these requirements have been issued for commercial and industrial facilities, including mobile home parks, RV parks and truck washing operations, where the volume of waste is high and/or there is the potential for the discharge of wastes other than domestic sewage. Waste discharge requirements for individual residential systems and low volume (less than 500 gallons per day) domestic waste discharges from industrial and commercial facilities have been largely waived, pursuant to the waiver provisions of the Water Code (see discussion of waivers in the "Implementation through Waste Discharge Requirements" section, above). These waivers are conditional and may be revoked by the Regional Board at any time.

The Board has included TDS limitations in these waste discharge requirements in order to assure that the discharges are consistent with the TDS objectives of the affected receiving waters. These limits are expressed as both a maximum value that is based on the TDS objective of the receiving water, and a value that allows a reasonable use increment of 250 mg/L TDS above water supply quality. The more restrictive of the two TDS limits controls the allowed quality of the discharges.

TDS and nitrogen contributions from domestic waste discharges to existing commercial, industrial and residential subsurface disposal systems are reflected in the determinations of current ambient ground water quality and assimilative capacity (see preceding section – B.1.) on salt assimilative capacity). These determinations were made as part of the N/TDS Task Force sponsored update of the TDS/nitrogen management plan in this Basin Plan. These contributions are expected to decline over time as these discharges are eliminated through the expansion of regional sewer systems.

Compliance with TDS limits by these facilities is particularly problematic, since these facilities typically have little or no control over the TDS quality of water supplied to them, unlike POTWs. Further, sewering of the discharges is often not an option, at least at the present time, although this is changing as rapid new development in many parts of the region continues to drive the expansion of sewer facilities. As systems expand, many of these discharges will be eliminated as they are connected to the sewers. Finally, the offset provisions that are applied to POTWs are unnecessary for existing residential commercial and industrial domestic waste discharges, given that they are addressed as part of the Regional Board's minimum

lot size program for subsurface disposal systems and through the updated TDS and nitrogen management plan in this Basin Plan as part of the overlying land-use considerations and ambient water quality determinations.

Taking these factors into consideration, the waste discharge requirements that have been issued and will be updated periodically for domestic waste discharges from these existing residential, commercial and industrial facilities will include TDS requirements that specify a maximum mineral increment of 250 mg/L TDS to the water supply quality. This will assure reasonable use and prevent the disposal of highly saline wastes. Existing facilities are defined as those for which waste discharge requirements have been issued, or that have been built as of December 23, 2004.

Table 5-7
Wastewater Reclamation

Subbasin (Management Zone) Receiving Reclaimed Water	Source	Amount AF/Y 2010-A[1]	Amount AF/Y 2010-B[2]
Beaumont MZ	Beaumont, City of	250	1,500
Yucaipa MZ	Yucaipa Valley Water District	--	6,400
Bunker Hill B MZ	San Bernardino, City of and Colton, City of	117	26,200
Colton MZ	Rialto, City of	200	
Chino North MZ	IEUA RP-1	1,200	48,000
Chino North MZ	IEUA RP-2A	2,470	
Chino North MZ	IEUA RP-4	3,300	
Chino North MZ	California Institute for Men	650	650
Chino North MZ	Upland Golf Course	31	31
Temescal MZ	Corona, City of	1,000	3,100
	TOTAL	**9,218**	**86,000**

[1] wastewater reclamation assumed in 2010-A is the same as that assumed in the 1995 Basin Plan when approved in 1994/1995 (also known as Table 5-7)

[2] wastewater reclamation assumed in 2010-B as identified by POTWs (see Ref. 3, 5).

V. Other Projects and Programs

In addition to the regulatory efforts of the Regional Board described in the preceding section, water and wastewater purveyors and other parties in the watershed have implemented, and propose to implement, facilities and programs designed to address salt problems in the groundwater of the Region. These include the construction of brine lines and groundwater desalters, implementation of programs to enhance the recharge of high quality stormwater and imported water, where available, and re-injection of recycled water to maintain salt water intrusion barriers in coastal areas. These projects and programs are motivated by the need to protect and augment water supplies, as well as to facilitate compliance with waste discharge requirements.

A. Brine Lines

There are two brine line systems in the Region, the Santa Ana Regional Interceptor (SARI) and the older Chino Basin Non-Reclaimable Line (NRL). These lines are used to transport brine wastes out of the basin for treatment and disposal to the ocean. They are a significant part of industrial waste management and essential for operation of desalters in the upper watersheds. The SARI Line was constructed and is owned by SAWPA. It is approximately 93 miles of 16 inch to 84 inch pipeline connected to the Orange County Sanitation District treatment facilities. SAWPA owns capacity rights in SARI downstream of Prado Dam. The line extends from the Orange County Line near Prado Dam northeast to the San Bernardino area. Recently, the SARI Line has been extended to serve the San Jacinto Watershed. SARI Reach 5 extends up the Temescal Canyon from the City of Corona to the Eastern Municipal Water District (EMWD) brine line terminus in the Lake Elsinore area. EMWD's Menifee Desalter and other high salinity discharges from EMWD and Western Municipal Water District now have access to the brine line.

The Chino Basin Non-Reclaimable Line (NRL) is connected to the Los Angeles County Sanitation District sewer system in the Pomona area. The NRL, which is owned and operated by Inland Empire Utilities Agency, exports non-reclaimable industrial wastes and brine from the Chino Basin. It extends eastward from the Los Angeles County Line to the City of Fontana. It was originally built to serve industries including the Kaiser Steel Company and Southern California Edison Power Plants.

B. Groundwater Desalters

The studies leading to the development of the TDS/Nitrogen management plan included in this Basin Plan when it was approved in 1995 demonstrated that it was not realistic to achieve compliance with all the nitrogen and TDS objectives for the groundwater subbasins then identified within the Region. Long-term historic land use practices, particularly agriculture, have left an enormous legacy of salts that are now

in the unsaturated soils overlying the groundwater subbasins (now, newly defined groundwater management zones). A significant amount of these salts will, over time, degrade groundwater quality. The programs of groundwater extraction, treatment, an replenlishment needed to completely address these historic salt loads were shown to far exceed the resources available to implement them.

While the boundaries of the groundwater management zones have been revised and new TDS and nitrate-nitrogen water quality objectives established, the salt legacy problem remains. The construction and operation of groundwater desalters to extract and treat poor quality groundwater continues to be an essential component of salt management in the Region. Such projects will be increasingly important to protect local water supplies and to provide supplemental, reliable sources of potable supplies.

A number of groundwater desalters have already been constructed, and more are planned. These facilities are described below.

1. Upper Santa Ana Basin

In the Upper Santa Ana Basin, the Santa Ana Watershed Project Authority constructed and operates the Arlington desalter. This desalter, with a capacity of about 7 MGD, treats water extracted from the Arlington Management Zone, which was heavily impacted by historic agricultural activities.

In the Chino Basin, the Chino Desalter Authority operates the Chino 1 desalter, which is planned for expansion from 8 MGD to 13 MGD capacity. Additional desalters and desalter capacity will be constructed as part of a “maximum benefit” proposal by the Chino Basin Watermaster and the Inland Empire Utilities Agency (see Section VI., Maximum Benefit Implementation Plans for Salt Management).

The City of Corona began operation of the Temescal desalter in late 2001. The desalter has a capacity of 10 MGD. The City is currently expanding the desalter by 5 MGD. It is expected to be operational in the early 2004. The product water is used to supplement current municipal supplies. The improved TDS quality of these supplies is an important part of the City’s efforts to assure compliance with waste discharge requirements.

In the San Timoteo Watershed areas, desalters will be implemented as necessary for the Yucaipa and Beaumont areas, as discussed in detail in Section VI., Maximum Benefit San Timoteo Watershed Salt Management Plan.

2. San Jacinto Watershed

EMWD operates the Menifee desalter, which has a capacity of about 3 MGD. Product water is added to the EMWD municipal supply system, and the waste brine is discharged to a non-reclaimable waste disposal system that is ultimately connected to the SAWPA SARI system. The desalter extracts groundwater from the Perris South and Menifee Management Zones, both of which are adversely affected by historic salt loads contributed largely by agricultural activities.

EMWD plans to construct a desalter with capacity of about 4.5 MGD to treat poor quality water extracted from the Perris South and Lakeview/Hemet North Management Zones. The purpose of this facility is to stop subsurface migration of poor quality groundwater from the Perris South Management Zone into the Lakeview/Hemet North Management Zone.

3. Orange County

The Tustin Nitrate Removal project, which began operation in 1996, added approximately 3,000 acre-feet of water annually to Tustin's domestic water supply. Treatment systems employing reverse osmosis and ion exchange are operating at two wells that had been shut down because of excessive nitrate concentrations. The Orange County Water District and Irvine Ranch Water District (IRWD) are moving forward with the Irvine Desalter, a dual-purpose regional groundwater remediation and water supply project located in the City of Irvine and its sphere of influence. The project consists of an extensive seven-well groundwater extraction and collection system, a treatment system, a five-mile brine disposal pipeline, a finished water delivery system, and ancillary facilities. While providing approximately 6,700 acre-feet per year to IRWD for potable supply, the desalter will extract and treat brackish groundwater and capture an overlapping regional plume of TCE-contaminated groundwater demonstrated to have originated from the U.S. Marine Corps Air Station-El Toro.

C. Recharge of Stormwater and/or Imported Water

The Orange County Water District, San Bernardino Valley Water Conservation District and other agencies in the Region operate extensive facilities designed to enhance the capture and recharge of high quality stormwater. More such facilities are planned as part of "maximum benefit" proposals by the Chino Basin Watermaster/Inland Empire Utilities Agency, Yucaipa Valley Water District, San Timoteo Watershed Management Authority and the City of Beaumont (Section VI., Maximum Benefit Implementation Plans for Salt Management). These proposals also include efforts to import and recharge high quality State Water Project water, when it is available. These activities increase both the quantity and quality of available groundwater resources.

D. Sea Water Intrusion Barriers

The Orange County Water District operates advanced facilities designed to provide significantly enhanced tertiary treatment of secondary treated municipal wastewater from the Orange County Sanitation District's (Sanitation District) Fountain Valley Reclamation Plant No. 1. The recycled water is injected into a series of wells located along Ellis Avenue in the City of Fountain Valley to maintain the Talbert Gap Seawater Intrusion Barrier. The treatment facility, currently known as Water Factory 21, will be supplanted by the Groundwater Replenishment System (GWRS) being constructed jointly by Orange County Water District and the Sanitation District (see preceding section on wastewater reclamation).

V. Salt Management Plan -- Monitoring Program Requirements

California Water Code Section 13242 specifies that Basin Plan implementation plans must contain a description of the monitoring and surveillance programs to be undertaken to determine compliance with water quality objectives. The adoption of new groundwater TDS and nitrate-nitrogen water quality objectives (Chapter 4) in response to the studies sponsored by the N/TDS Task Force triggered the need to develop and implement a new, watershed-wide nitrogen/TDS monitoring program. The Task Force provided additional impetus for this comprehensive monitoring program. The Task Force recommended that future review and update of the salt management plan, including findings of assimilative capacity, appropriate changes to the wasteload allocations, etc., should be based on real-time data obtained through a rigorous monitoring program, rather than on model projections. As discussed earlier (see Section II., Update of the Total Dissolved Solids/Nitrogen Management Plan), the Task Force concluded that the development of new, workable modeling tools to assist in this review was beyond the scope and financial capability of the Task Force.

The monitoring program must consist of both surface water and groundwater components. Some of these are already being implemented, including the annual sampling of the Santa Ana River, Reach 3 at Prado Dam by Regional Board staff (see Chapter 4 and below). Certain agencies have committed to conduct monitoring of specific water bodies as part of their "maximum benefit" proposals (see Section VI., Maximum Benefit Implementation Plans for Salt Management, below). The N/TDS Task Force members, and other parties as appropriate, will be required to propose a comprehensive monitoring program that would integrate these existing commitments with other monitoring recommendations. These parties will be required to implement this program upon approval by the Regional Board.

A. Surface Water Monitoring Program Requirements for TDS and Nitrogen

Implementation of a surface water monitoring program is needed to determine compliance with the nitrogen and TDS objectives of the Santa Ana River, and

thereby, the effectiveness of the wasteload allocations. It is also needed to provide data required to evaluate the effects of surface water discharges on affected groundwater management zones. In particular, data are needed to confirm the validity of the 50% nitrogen loss coefficient that will be applied in regulating discharges to that part of Reach 3 of the River that overlies the Chino South groundwater management zone (see Section III.B.3., Nitrogen loss coefficients).

As discussed in Chapter 4, the Basin Plan specifies baseflow TDS and total nitrogen objectives for Reach 3 of the River. For Reach 2, a TDS objective based on a five-year moving average of the annual TDS concentration is specified. Use of this moving average allows the effects of wet and dry years to be integrated over the five-year period and reflects the actual long-term quality of water recharged by Orange County Water District downstream of Prado Dam.

The Basin Plan specifies a monitoring program to determine compliance with the Reach 3 baseflow objectives at Prado Dam (see Chapter 4). As noted above, Regional Board staff conducts this program on an annual basis. Measurement of baseflow quality, rather than the quality of flows in Reach 2, has long been used to indicate the effects of recharge of Santa Ana River flows on Orange County groundwater. The efficacy of this approach was evaluated as part of the 2004 update of the TDS/nitrogen management plan in the Basin Plan. Insufficient data were available to draw a direct correlation between the long-term TDS and nitrogen quality of River flows at Prado Dam and that of affected Orange County groundwater. However, the conclusion drawn was that reliance on the Reach 3 baseflow objectives to protect Orange County groundwater, and the existing monitoring program designed to measure compliance, is adequate.

In addition to this baseflow sampling program and the surface water monitoring commitments associated with certain agencies' "maximum benefit" programs, the comprehensive monitoring program to be proposed and implemented by the Task Force members, and other agencies as appropriate, must include an evaluation of compliance with the TDS and nitrogen objectives for Reaches 2, 4 and 5 of the Santa Ana River. Compliance with the Reach 2 TDS objective can be determined by evaluation of data collected by the Santa Ana River Watermaster, Orange County Water District, the United States Geological Survey, and others.

Surface water monitoring program requirements for TDS and nitrogen are as follows:

1. No later than March 23, 2005, Orange County Water District, Inland Empire Utilities Agency, Chino Basin Watermaster, City of Riverside, City of Corona, Elsinore Valley Municipal Water District, Eastern Municipal Water District, City of Colton, City of San Bernardino Municipal Water Department, Jurupa Community Services District, Western Riverside County Regional Wastewater Authority, Lee Lake Water District, Yucaipa Valley Water District, City of Beaumont, the San Timoteo Watershed Management Authority and the City of Rialto shall submit to the Regional Board for approval, a proposed surface water TDS and nitrogen

monitoring program that will provide an evaluation of compliance with the TDS and nitrogen objectives for Reaches 2, 4 and 5 of the Santa Ana River.

In lieu of this coordinated monitoring plan, one or more of the parties identified in the preceding paragraph may submit an individual or group monitoring plan. Any such individual or group monitoring plan shall also be submitted no later than March 23, 2005.

2. By April 15th of each year, the Orange County Water District, Inland Empire Utilities Agency, City of Riverside, City of Corona, Elsinore Valley Municipal Water District, Eastern Municipal Water District, Lee Lake Water District, City of Colton, City of San Bernardino Municipal Water Department, Jurupa Community Services District, Western Riverside County Wastewater Agency, Yucaipa Valley Water District, City of Beaumont, the San Timoteo Watershed Management Authority and the City of Rialto, shall submit an annual report of Santa Ana River, Reach 2 , 4 and 5 water quality. Data evaluated shall include that collected by the Santa Ana River Watermaster, Orange County Water District, and the US Geologic Survey, at a minimum.

   In lieu of this coordinated annual report, one or more of the parties identified in the preceding paragraph may submit an individual or group annual report. Any such individual or group report shall also be submitted by April 15th of each year.

Additional surface water monitoring programs may be specified by the Regional Board depending upon watershed conditions, waste discharge specifications and/or any special studies related to TDS and nitrogen.

B. Groundwater Monitoring Program for TDS and Nitrogen

Implementation of a watershed-wide TDS/nitrogen groundwater monitoring program is necessary to assess current water quality, to determine whether TDS and nitrate-nitrogen water quality objectives for management zones are being met or exceeded, and to update assimilative capacity findings. Groundwater monitoring is also needed to fill data gaps for those management zones with insufficient data to calculate TDS and nitrate-nitrogen historical quality and current quality. Finally, groundwater monitoring is needed to assess the effects of POTW discharges to surface waters on affected groundwater. In particular, monitoring is needed to confirm the 50% nitrogen loss coefficient for discharges to that part of the Santa Ana River, Reach 3 that affect the Chino South Management Zone.

Groundwater monitoring requirements for TDS and nitrogen are as follows:

1. No later than June 23, 2005, Orange County Water District, Irvine Ranch Water District, Inland Empire Utilities Agency, Chino Basin Watermaster, City of Riverside, City of Corona, Elsinore Valley Municipal Water District, Eastern Municipal Water District, City of Colton, City of San Bernardino Municipal Water Department, City of

Redlands, Jurupa Community Services District, Western Riverside County Regional Wastewater Authority , Lee Lake Water District, Yucaipa Valley Water District, City of Beaumont, the San Timoteo Watershed Management Authority and the City of Rialto shall submit to the Regional Board for approval, a proposed watershed-wide TDS and nitrogen monitoring program that will provide data necessary to review and update the TDS/nitrogen management plan. Data to be collected and analyzed shall address, at a minimum: (1) determination of current ambient quality in groundwater management zones; (2) determination of compliance with TDS and nitrate-nitrogen objectives for the management zones; (3) evaluation of assimilative capacity findings for groundwater management zones; and (4) assessment of the effects of recharge of surface water POTW discharges on the quality of affected groundwater management zones. The determination of current ambient quality shall be accomplished using methodology consistent with that employed by the Nitrogen/TDS Task Force (20-year running averages) to develop the TDS and nitrogen water quality objectives included in this Basin Plan. [Ref. 1] The determination of current ambient groundwater quality throughout the watershed must be reported by July 1, 2005, and, at a minimum, every three years thereafter.

In lieu of this coordinated monitoring plan, one or more of the parties identified in the preceding paragraph may submit an individual or group monitoring plan. Any such individual or group monitoring plan shall also be due no later than June 23, 2005.

Details to be included in the proposed monitoring program shall include, but not be limited to, the following:

- Monitoring program goals
- responsible agencies
- groundwater water sampling locations
- surface water sampling locations (if appropriate)
- water quality parameters
- sampling frequency
- quality assurance/quality control
- database management
- data analysis and reporting

Within 30 days of Regional Board approval of the proposed monitoring plan, the monitoring plan must be implemented.

2. No later than June 23, 2005, the City of Colton, City of San Bernardino Municipal Water Department, City of Riverside, Jurupa Community Services District and the City of Rialto, shall submit to the Regional Board for approval, a monitoring program that will be utilized to confirm the 50% Santa Ana River, Reach 3 nitrogen loss coefficient.

In lieu of this coordinated monitoring plan, one or more of the parties identified in the preceding paragraph may submit an individual or group monitoring plan. Any such individual or group monitoring plan shall also be due no later than June 23, 2005.

Within 30 days of Regional Board approval of the monitoring plan, the monitoring program must be implemented.

Additional groundwater monitoring programs may be specified by the Regional Board depending upon watershed conditions, waste discharge specifications and/or any special studies related to TDS and nitrogen.

VI. Maximum Benefit Implementation Plans for Salt Management

As discussed in Chapter 4, with some limited exceptions, TDS and nitrate-nitrogen objectives for groundwater management zones in the Santa Ana Region were established to ensure that historical quality is maintained, pursuant to the State's antidegradation policy (State Board Resolution No. 68-16). However, alternative, less stringent "maximum benefit" objectives are also specified in Chapter 4 for certain groundwater management zones. These "maximum benefit" objectives, which would allow the lowering of water quality, were established based on demonstrations by the agencies recommending them that antidegradation requirements were satisfied. First, these agencies demonstrated that beneficial uses would continue to be protected. Second, these agencies showed that water quality consistent with maximum benefit to the people of the state would be maintained. Other factors, such as economics, the need to use recycled water, and the need to develop housing in the area were also taken into account in establishing the objectives (see Chapter 4).

The demonstrations of "maximum benefit" by these agencies are contingent on the implementation of specific projects and programs by the agencies. As discussed in Chapter 4, if these projects and programs are not implemented to the Regional Board's satisfaction, then the alternative "antidegradation" objectives apply to these waters for regulatory purposes.

This section identifies the specific commitments by the Chino Basin Watermaster and Inland Empire Utilities Agency, the Yucaipa Valley Water District, the City of Beaumont and the San Timoteo Water Management Authority to implement projects and programs to support the "maximum benefit" objectives established for groundwater management zones affected by their wastewater and water management practices.

A. Salt Management – Chino Basin and Cucamonga Basin

As shown in Chapter 4, both "antidegradation" and "maximum benefit" objectives for TDS and nitrate-nitrogen are specified in this Plan for certain parts of the Chino Basin and the Cucamonga groundwater Management Zone. The application of the "maximum benefit" objectives relies on the implementation by the Chino Basin Watermaster and the Inland Empire Utilities Agency of a specific program of projects

and requirements [Ref. 10B], which are an integral part of the Chino Basin Optimum Basin Management Program (OBMP) [Ref. 10C]. The OBMP was developed by the Watermaster under the supervision of the San Bernardino County Superior Court. The OBMP is a comprehensive, long-range water management plan for the Chino Basin as a whole, including the Chino North (or Chino 1, 2, and 3) and Cucamonga Management Zones. The OBMP includes the use of recycled water for basin recharge, initially in the Chino North Management Zone. Recycled water recharge in the Cucamonga Management Zone may be pursued in the future. The OBMP also includes the capture of increased quantities of high quality storm water runoff, recharge of imported water when its TDS concentrations are low, improvement of water supply by desalting poor quality groundwater, and enhanced wastewater pollutant source control programs. The OBMP maps a strategy that will provide for enhanced yield for the Chino Basin and seeks to provide reliable water supplies for development expected to occur within the Basin. The OBMP also includes the implementation of management activities that would result in the hydraulic isolation of Chino Basin groundwater from the Orange County Management Zone, thus insuring the protection of downstream beneficial uses and water quality.

Table 5-8a identifies the projects and requirements that must be implemented to demonstrate that water quality consistent with maximum benefit to the people of the state will be maintained. An implementation schedule is also specified. The Regional Board will revise IEUA's waste discharge requirements, issue appropriate permits to the Chino Basin Watermaster, and utilize the authority provided by Section 13267 of the Water Code as necessary to require that these commitments be met. It is assumed that maximum benefit is demonstrated, and that the "maximum benefit" TDS and nitrate-nitrogen objectives apply to the Chino North and Cucamonga Management Zones as long as the schedule is being met. If the Regional Board determines that the maximum benefit program is not being implemented effectively in accordance with the schedule shown in Table 5-8a, then maximum benefit is not demonstrated, and the "antidegradation" TDS and nitrate-nitrogen objectives for the Chino 1, 2, and 3 and Cucamonga Management Zones apply. In this situation, the Regional Board will require mitigation for TDS and nitrate-nitrogen discharges to these management zones that took place in excess of limits based on the "antidegradation" objectives.

Table 5-8a

Chino Basin Maximum Benefit Commitments

Description of Commitment	**Compliance Date – as soon as possible, but no later than**
1. Surface Water Monitoring Program	
a. Submit Draft Monitoring Program to Regional Board	a. January 23, 2005
b. Implement Monitoring Program	b. Within 30 days from date of Regional Board approval of monitoring plan
c. Quarterly data report submittal	c. April 15, July 15, October 15, January 15
d. Annual data report submittal	d. February 15th
2. Groundwater Monitoring Program	
a. Submit Draft Monitoring Program to Regional Board	a. January 23, 2005
b. Implement Monitoring Program	b. Within 30 days from date of Regional Board approval of monitoring plan
c. Annual data report submittal	c. February 15th
3. Chino Desalters	
a. Chino 1 desalter expansion to 10 MGD	a. Prior to recharge of recycled water
b. Chino 2 desalter at 10 MGD design	b. Recharge of recycled water allowed once award of contract and notice to proceed issued for construction of desalter treatment plant
4. Future desalters plan and schedule submittal	October 1, 2005 Implement plan and schedule upon Regional Board approval
5. Recharge facilities (17) built and in operation	June 30, 2005
6. IEUA wastewater quality improvement plan and schedule submittal	60 days after agency-wide 12 month running average effluent TDS quality equals or exceeds 545 mg/L for 3 consecutive months or agency-wide 12 month running average TIN equals or exceeds 8 mg/L in any month. Implement plan and schedule upon approval by Regional Board.

Table 5-8a

Chino Basin Maximum Benefit Commitments (cont.)

Description of Commitment	**Compliance Date – as soon as possible, but no later than**
7. Recycled water will be blended with other recharge sources so that the 5-year running average TDS and nitrate-nitrogen concentrations of water recharged are equal to or less than the "maximum benefit" water quality objectives for the affected Management Zone (Chino North or Cucamonga).	Compliance must be achieved by end of 5th year after initiation of recycled water recharge operations.
a. Submit a report that documents the location, amount of recharge, and TDS and nitrogen quality of stormwater recharge before the OBMP recharge improvements were constructed and what is projected to occur after the recharge improvements are completed	a. Prior to initiation of recycled water recharge
b. Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of CBW/IEUA enhanced recharge facilities.	b. Annually, by February 15th, after initiation of construction of basins/other facilities to support enhanced stormwater recharge.
8. Hydraulic Control Failure	
a. Plan and schedule to correct loss of hydraulic control	a. 60 days from Regional Board finding that hydraulic control is not being maintained
b. Achievement and maintenance of hydraulic control	b. In accordance with plan and schedule approved by Regional Board. The schedule shall assure that hydraulic control is achieved as soon as possible but no later than 180 days after loss of hydraulic control is identified.
c. Mitigation plan for temporary failure to achieve/maintain hydraulic control	c. By January 23, 2005. Implement plan upon Regional Board determination that hydraulic control is not being maintained.
9. Ambient groundwater quality determination	July 1, 2005 and every 3 years thereafter

Description of Chino Basin Watermaster and Inland Empire Utilities Agency Commitments

1. Surface Water Monitoring Program (Table 5-8a #1)

The Chino Basin Watermaster (Watermaster), in conjunction with staff of the Orange County Water District and Regional Board, has developed a proposed surface water monitoring program. By January 23, 2005 and prior to the discharge of recycled water to the Chino Basin, Watermaster shall submit the recommended surface water monitoring program to the Regional Board for approval. The monitoring program must be implemented within 30 days of Regional Board approval, and six months of data must be generated prior to the discharge of recycled water to the Chino Basin.

At a minimum, the surface water monitoring program shall include the collection of bi-weekly measurements of general minerals and nitrogen components at the locations listed in Table 5-8b. Data reports shall be submitted to the Regional Board Executive Officer by April 15, July 15, October 15, and January 15 each year. An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted by February 15th of each year.

2. Groundwater Monitoring Program (Table 5-8a, #2)

The purpose of the Groundwater Monitoring Program is to (1) identify potential impacts from implementation of the Chino Basin "maximum benefit" water quality objectives on water levels and water quality within the Chino Basin and in downgradient basins and (2) determine whether hydraulic control (see # 8, below) is being achieved and maintained. By January 23, 2005 and prior to the discharge of recycled water to the Chino Basin, Watermaster shall submit to the Regional Board for approval a proposed groundwater monitoring program to determine hydraulic control and ambient water quality in the Chino North and Cucamonga Management Zones. Within 30 days of Regional Board approval of the monitoring plan, the groundwater monitoring program must be implemented.

An annual report, including all raw data and summarizing the results of the approved groundwater monitoring program, shall be submitted to the Regional Board by February 15th of each year.

3. Chino 1 and Chino 2 Desalters (Table 5-8a, # 3)

Prior to the recharge of recycled water in the Chino Basin, the Chino 1 desalter must be expanded and in operation at a capacity of 10 million gallons per day (MGD). Also, contracts for the construction of the Chino 2 desalter treatment plant must be awarded and a notice to proceed with the construction must be given prior to recharge of recycled water.

4. Future Desalter Development (Table 5-8a, # 4)

No later than October 1, 2005, the schedule for implementation of the next 20 MGD of desalter capacity, pursuant to the Peace Agreement that implements the Chino Basin OBMP, and as required by the San Bernardino Superior Court, must be submitted to the Regional Board by the Chino Basin Watermaster. IEUA and/or the Chino Basin Watermaster and/or other responsible parties deemed acceptable by the Executive Officer, will initiate building of the next desalter when the 12-month running average effluent concentration (measured as an average for all IEUA wastewater treatment facilities) reaches 545 mg/L TDS for three consecutive months.

Table 5-8b

Surface Water Monitoring Sites for Monitoring of Surface Water and Groundwater Quality
Near the River to Determine the Presence and Source of Rising Groundwater

Site Name	Discharge	Owner	Type	Discharge Monitoring		Water Quality Monitoring		
				Frequency	Period	Frequency	Period	Analyses
11066460	Santa Ana Riv.	USGS	Total Discharge	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
11072100	Temescal Cr.	USGS	Total Discharge	Bi-weekly	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
11073495	Cucamonga Cr.	USGS	Total Discharge	Bi-weekly	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
11073440	Chino Cr.	USGS	Total Discharge	Bi-weekly	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
11074000	Santa Ana Riv.	USGS	Total Discharge	Bi-weekly	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
RWQCP Direct	Recycled Water	Riverside	Recycled Water	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
RWQCP Hidden Valley	Recycled Water	Riverside	Recycled Water	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
Corona RW	Recycled Water	Corona	Recycled Water	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
RP1 Cucamonga	Recycled Water	IEUA	Recycled Water	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
RP1 Prado	Recycled Water	IEUA	Recycled Water	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
RP2	Recycled Water	IEUA	Recycled Water	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
Carbon Canyon	Recycled Water	IEUA	Recycled Water	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
RP5	Recycled Water	IEUA	Recycled Water	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
WRCRWTP	Recycled Water	WR-JPA	Recycled Water	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
SAR-MWDXING	Santa Ana Riv.	OCWD	Total Discharge	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
SAR-HOLELK-01	Hole Lake	OCWD	Total Discharge	Bi-weekly	May-Sep	Bi-weekly	Jan - Dec	Gen. Min. & Physical
SAR-VANBUREN	Santa Ana Riv.	OCWD	Total Discharge	Bi-weekly	May-Sep	Bi-weekly	Jan - Dec	Gen. Min. & Physical
SAR-ETIWANDA-01	Santa Ana Riv.	OCWD	Total Discharge	Bi-weekly	May-Sep	Bi-weekly	Jan - Dec	Gen. Min. & Physical
SAR-HAMNER-01	Santa Ana Riv.	OCWD	Total Discharge	Bi-weekly	May-Sep	Bi-weekly	Jan - Dec	Gen. Min. & Physical
SAR-RIV.RD	Santa Ana Riv.	OCWD	Total Discharge	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
SAR-DIV-PRADOWTLNDS	Santa Ana Riv.	OCWD	Total Discharge	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
SAR-BELOWDAM-01	Santa Ana Riv.	OCWD	Total Discharge	Daily	Jan - Dec	Bi-weekly	Jan - Dec	Gen. Min. & Physical
CK-CHINO	Chino Cr.	OCWD	Total Discharge	Bi-weekly	May-Sep	Bi-weekly	Jan - Dec	Gen. Min. & Physical
CK-MILL	Cucamonga Cr.	OCWD	Total Discharge	Bi-weekly	May-Sep	Bi-weekly	Jan - Dec	Gen. Min. & Physical
CK-TEMESCAL	Temescal Cr.	OCWD	Total Discharge	Bi-weekly	May-Sep	Bi-weekly	Jan - Dec	Gen. Min. & Physical

(Source: Ref. 10B)

5. Recharge Facilities (Table 5-8a, # 5)

By June 30, 2005, or no later than one year from the start of discharge of recycled water, the 17 recharge facilities identified in the August 2001 Watermaster Recharge Master Plan and as updated by the Watermaster and IEUA, must be completed and operated to maximize the capture of storm water in the Chino Basin. The Watermaster has also committed to optimize the recharge of imported water in the Chino Basin based on the goal of maximizing recharge of State Project water when the TDS of that water is lowest.

The Watermaster proposal recognizes the importance and necessity of recharge of both storm water and imported water to meet the water supply demands on the Chino Basin. Recharge of high quality supplies to the Chino Basin is necessary to offset the quality effects of recycled water and to achieve an ambient water quality equal to or better than the "maximum benefit" TDS and nitrate-nitrogen water quality objectives.

6. IEUA Wastewater Effluent Quality (Table 5-8a, # 6)

Within 60 days after the IEUA 12-month running average effluent concentration (measured as an average for all IEUA wastewater treatment facilities) for TDS exceeds 545 mg/L for 3 consecutive months, or the 12-month running average total inorganic nitrogen (TIN) concentration (measured as an average for all IEUA wastewater treatment facilities) exceeds 8 mg/L in any month, the IEUA shall submit to the Regional Board a plan and time schedule for implementation of measures to insure that the12-month running average agency wastewater effluent quality does not exceed 550 mg/L and 8 mg/L for TDS and TIN, respectively. The Plan and schedule are to be implemented upon Regional Board approval.

7. Recycled Water Use (Table 5-8a, # 7)

The use and recharge of recycled water within the Chino Basin is a critical component of the Watermaster OBMP and is necessary to maximize the use of the water resources of the Chino Basin. The demonstration of maximum benefit, and the continued application of the "maximum benefit" TDS and nitrate-nitrogen water quality objectives, depends on the recharge to the Chino North Management Zone of 5-year annual average (running average) TDS and nitrogen concentrations of no more than 420 mg/L and 5 mg/L, respectively. If and when recycled water recharge in the Cucamonga Management Zone is pursued, the application of the "maximum benefit" objectives will depend on the recharge to that zone of 5-year running average TDS and nitrogen concentrations no greater than 380 mg/L and 5 mg/L, respectively. IEUA has committed to meeting these levels and recognizes that the maximum benefit objectives depend on achieving these 5-year running average concentrations.

Accordingly, the use of recycled water for groundwater recharge shall be limited to the amount that can be blended on a volume-weighted basis with other sources of

recharge to the management zone to achieve a 5-year running average concentration equal to or less than the "maximum benefit" TDS and nitrogen water quality objectives of the affected Management Zone (Chino North or Cucamonga). The 25% nitrogen loss coefficient will be applied to calculate recycled water nitrogen quality when determining the amount of recharge of other water sources that must be achieved to meet the 5-year running averages.

8. Hydraulic Control (Table 5-8a, # 8)

"Hydraulic Control" is defined as eliminating groundwater discharge from the Chino Basin to the Santa Ana River, or controlling the discharge to *de minimis* levels. The surface water and groundwater monitoring programs described above are intended to demonstrate whether hydraulic control is achieved and maintained. In the event that the Regional Board finds that hydraulic control is not being accomplished, the Watermaster shall submit to the Regional Board within 60 days of that finding a plan and time schedule to correct (within 180 days from the Regional Board approval of the plan and schedule) the failure to achieve and maintain hydraulic control.

By January 23, 2005, the Watermaster and IEUA shall prepare a proposed plan and schedule to mitigate temporary losses of hydraulic control. These agencies must implement this plan upon a determination by the Regional Board that hydraulic control is not being achieved or maintained.

9. Ambient Groundwater Quality Determination (Table 5-8a, # 9)

By July 1, 2005, and every three years thereafter, Watermaster shall submit a determination of ambient TDS and nitrate-nitrogen quality in the Chino North and Cucamonga Management Zones. This determination shall be accomplished using methodology consistent with the determinations (20-year running averages) used by the TDS/Nitrogen Task Force to develop the "antidegradation" TDS and nitrate-nitrogen water quality objectives for groundwaters subbasins within the Region. [Ref. 1].

<u>Implementation by Regional Board</u>

1. Revision of the Inland Empire Utilities Agency NPDES Permits

To implement the "maximum benefit" objectives, the Regional Board will revise the NPDES permits for IEUA wastewater discharges to reflect the commitments described above, as appropriate. This includes the following. TDS and TIN (includes nitrate-nitrogen) limits of 550 mg/L and 8 mg/L, respectively, will be specified as an agency-wide, volume weighted-average. The limits will be expressed as 12-month running averages. These limits implement the wasteload allocations for IEUA surface water discharges (see Table 5-5), and are not

contingent on the "maximum benefit" objectives or demonstration[5]. IEUA will be required to implement measures to improve effluent quality when the 12 month running average effluent concentration (measured as an average for all IEUA treatment facilities) exceeds 545 mg/L for 3 consecutive months, or when the 12-month running average total inorganic nitrogen concentration (also measured as an average for all IEUA treatment facilities) exceeds 8 mg/L in any month. The permits will require that recycled water used for recharge shall be limited to the amount that can be blended in the management zone with other water sources, such as stormwater or imported water, to achieve 5-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the affected management zone (Chino North or Cucamonga). Recycled water recharge is not currently contemplated in other parts of the Chino Basin. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified for recycled water recharge in the Chino 1, 2 and 3 and Cucamonga Management Zones. These limits will apply should the Regional Board find that maximum benefit is not demonstrated. If recharge projects are implemented elsewhere in the Chino Basin, TDS and TIN limits will be based on the TDS and nitrate-nitrogen objectives of the affected management zones.

The effluent limits for IEUA, which establish an upper limit on TDS and TIN concentrations of recycled water discharged in the basin, are a cornerstone of the maximum benefit demonstration. The cap on effluent TDS and TIN concentrations provides a controlling point for management of TDS and nitrogen water quality in the Chino Basin. The TDS in IEUA's effluent is expected to reach 550 mg/L before the groundwater in the Chino North Management Zone or the Cucamonga Management Zone reaches the "maximum benefit" objectives of 420 mg/L and 380 mg/L, respectively. The IEUA/Chino Basin Watermaster maximum benefit proposal commits to the initiation of construction of another Chino Basin desalter when the TDS in IEUA's effluent reaches 545 mg/L for three consecutive months. This desalter may be constructed by IEUA and/or Chino Basin Watermaster and/or other responsible parties deemed acceptable by the Executive Officer. Further, IEUA will immediately implement a salt management program to reduce the salts, including nitrogen, entering IEUA's wastewater treatment plants. This salt management program will include: 1) connection of new industries that have wastewater discharges with TDS greater than 550 mg/L to the brine line; 2) regulation of the use of new and existing water softeners to the extent allowed by law, with incentives provided for the removal of on-site regenerative water softeners and the use of exchange canisters or other off-site regenerative systems; 3) connection of existing domestic system industries with high TDS waste discharges to the brine lines; 4) percolation of State Water Project water into the Chino Basin when that water is low in TDS; and 5) development of a plan for sewering areas presently served by septic

[5] Surface water discharges by IEUA do not affect the groundwater management zones for which "maximum benefit" objectives are specified. Thus, the wasteload allocations do not vary depending on whether or not the "maximum benefit" objectives apply.

tanks to reduce the nitrogen loading into the Chino and Cucamonga Management Zones. IEUA's permits will reflect these commitments.

Implementing these measures will assure that the groundwater quality remains at or below the Chino North Management Zone objective of 420 mg/L and the Cucamonga Management Zone objective of 380 mg/L. Maintenance of this ambient groundwater quality is necessary, in turn, to assure that IEUA's wastewater treatment facilities are able to meet the effluent TDS limits. Chino Basin groundwater is a significant component of the water supplied in IEUA's service area and its quality thus has an important effect on effluent quality. Poor ambient water quality will preclude IEUA from meeting effluent limits, without desalting. IEUA can revise treatment plant operations to assure that the TIN limit is achieved. These TDS and TIN limitations assure beneficial use protection for Chino Basin and downstream Orange County groundwater, as well as surface waters (including Chino Creek and the Santa Ana River) affected by IEUA discharges.

IEUA's revised permits will also reflect the surface and groundwater monitoring program requirements described above.

2. Issuance of permits to Chino Basin Watermaster

The Regional Board will issue appropriate permits to the Watermaster, individually or jointly with IEUA, for the recharge of recycled water in the Basin. These permits will implement the commitments described above for recharge of other water sources to offset the quality of the recycled water. The parties will be required to document the amount, quality and location of recharge of these other sources, and to demonstrate that stormwater recharge used for blending purposes occurred as the result of the parties' efforts to enhance such recharge. Other "maximum benefit" commitments will be reflected in these permits, or in other orders of the Regional Board, as appropriate.

3. Review of Project Status

No later than 2005, and every three years thereafter (to coincide with the Regional Board's triennial review process), the Regional Board intends to review the status of the activities planned and executed by the Watermaster and IEUA to demonstrate maximum benefit and to justify continued implementation of the "maximum benefit" water quality objectives. This review is intended to determine whether the commitments specified above and summarized in Table 5-8a are met. If, as a result of this review and after consideration at a duly noticed Public Hearing, the Regional Board finds that the Watermaster and IEUA commitments are not met, the Regional Board will make a finding that the lowering of water quality associated with TDS and nitrate-nitrogen water quality objectives that are higher than historical water quality (the "antidegradation" objectives") is not of maximum benefit to the people of the state. By default, the scientifically derived, "antidegradation objectives" for the Chino 1, 2 and 3 and Cucamonga Management Zones would become effective (280 mg/L,

250 mg/L, 260 mg/L and 210 mg/L TDS respectively; 5.0 mg/L, 2.9 mg/L, 3.5 mg/L and 2.4 mg/L for nitrate-nitrogen – see Chapter 4).

The Watermaster and IEUA have made clear commitments to the implementation of projects and management strategies to achieve the "maximum benefit" objectives. A finding of "maximum benefit to the people of the state" is also a very strong commitment of support by the Regional Board for the goals, vision and future plans of the Watermaster and IEUA. Watermaster and IEUA have indicated that the supervision of the Watermaster program by the San Bernardino County Superior Court will ensure that the Watermaster and IEUA commitments are met. However, people change, commitments may be changed, and public agency decisions may certainly change. If the commitments are not met and "maximum benefit" is not demonstrated, then the Regional Board will require that Watermaster and IEUA mitigate the effects of discharges of recycled and imported water that took place under the maximum benefit objectives. Under this circumstance, mitigation will be required such that, after mitigation, the salt and nitrogen loads to the basin from imported water, newly captured stormwater inputs under the Watermaster enhanced stormwater interception program, and recycled water are made to be equivalent to the salt loads that would have been allowed to the Chino Basin under the antidegradation objectives. Discharges in excess of the antidegradation objectives that must be considered for mitigation include both recycled water and imported water at TDS concentrations in excess of the antidegradation objectives. Mitigation by groundwater extraction and desalting must be adjusted to address concentrations of salt and nitrogen in the basin, not simply salt load. (Desalting will be an effective mitigation strategy, but desalting removes water, as well as salt, and the resulting salt concentrations in the groundwater will not completely mitigate the effects of the maximum benefit discharges, if mitigation is considered simply on a salt load, rather than concentration, basis.) This remediation will be required of the agencies that were responsible for the discharge of recycled and imported water (waste discharge permit holders) under the maximum benefit objectives. The remediation must be completed within a 10-year period following the finding by the Regional Board that the antidegradation objectives apply. The Regional Board will also require mitigation of any adverse effects on water quality downstream of the Chino Basin that result from failure to implement the "maximum benefit" commitments.

B. Salt Management - San Timoteo Watershed

1. San Timoteo and Yucaipa Management Zone - Yucaipa Valley Water District

Two sets of objectives have been adopted for the San Timoteo and Yucaipa Management Zones; the "maximum benefit" objectives and objectives based on historic ambient quality ("antidegradation" objectives) (see Chapter 4). The application of the "maximum benefit" objectives relies on the implementation by the Yucaipa Valley Water District (YVWD) (and in the case of the San Timoteo Management Zone, by the City of Beaumont/STWMA (see discussion below)) of a specific program of projects and requirements [Ref. 10D]. This program is a part of a watershed-scale water resources management plan designed by YVWD and other members of the San Timoteo Watershed Management Authority (STWMA) (the City of Beaumont, the Beaumont-Cherry Valley Water District and the South Mesa Water Company) to assure reliable supplies to meet present and anticipated demands. The projected water demands for the Yucaipa area for the year 2030 require approximately an additional 10,000 AF/Y of supplemental water, including State Water Project water, water imported from local sources, recharged storm water and recycled water. YVWD is in the process of implementing the water resources management plan, which includes enhanced recharge of stormwater and recycled water, optimizing direct use of recycled and imported water, and conjunctive use.

In addition to its water supply responsibilities, YVWD provides sewage collection and treatment services within its service area. YVWD operates a wastewater treatment facility that currently discharges tertiary treated wastewater to San Timoteo Creek, Reach 3. This unlined reach of the Creek overlies and recharges the San Timoteo groundwater management zone.

Table 5-9a identifies the projects and requirements that must be implemented by YVWD to demonstrate that water quality consistent with maximum benefit to the people of the state will be maintained. An implementation schedule is also specified. The Regional Board will revise YVWD's waste discharge requirements to require that these commitments be met. It is assumed that maximum benefit is demonstrated, and that the "maximum benefit" water quality TDS and nitrate-nitrogen objectives apply to the Yucaipa and San Timoteo Management Zones, as long as the schedule is being met[6]. If the Regional Board determines that the maximum benefit program is not being implemented effectively in accordance with the schedule shown in Table 5-9a (and in the case of the San Timoteo Management Zone, the commitments and schedule shown in Table 5-10a (see next section)), then maximum benefit is not demonstrated and the "antidegradation" TDS and nitrate-nitrogen objectives apply. In this situation, the Regional Board will require mitigation for TDS and nitrate-nitrogen

[6] Application of "maximum benefit" objectives for the San Timoteo Management Zone is also contingent on the timely implementation of the commitments by the City of Beaumont and the San Timoteo Watershed Management Authority which are discussed in the next section.

discharges affecting these management zones that took place in excess of limits based on the “antidegradation” objectives. As for Chino Basin Watermaster and Inland Empire Utilities Agency, discharges in excess of the antidegradation objectives that must be considered for mitigation include both recycled water and imported water, at TDS concentrations in excess of the antidegradation objectives. Mitigation by groundwater extraction and desalting must be adjusted to address concentrations of salt and nitrogen in the basin, not simply salt load.

Table 5-9a

Yucaipa Valley Water District Maximum Benefit Commitments

Description of Commitment	**Compliance Date – as soon as possible, but no later than**
1. Surface Water Monitoring Program	
a. Submit Draft Monitoring Program to Regional Board	a. January 23, 2005
b. Implement Monitoring Program	b. Within 30 days from Regional Board approval of monitoring plan
c. Quarterly data report submittal	c. April 15, July 15, October 15, January 15
d. Annual data report submittal	d. February 15th
2. Groundwater Monitoring Program	
a. Submit Draft Monitoring Program to Regional Board	a. January 23, 2005
b. Implement Monitoring Program	b. Within 30 days from Regional Board approval of monitoring plan
c. Annual data report submittal	c. February 15th
3. Desalter(s) and Brine Disposal Facilities	
a. Submit plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to operational as soon as possible but no later than 7 years from date of Regional Board approval of plan/schedule.	a. Within 6 months of either of the following: i. When YVWD's effluent 5-year running average TDS exceeds 530 mg/L; and/or ii.. When volume weighted average concentration in the Yucaipa MZ of TDS exceeds 360 mg/L
b. Implement the plan and schedule	b. Within 30 days from Regional Board approval of monitoring plan
4. Non-potable water supply Implement non-potable water supply system to serve water for irrigation purposes. The non-potable supply shall comply with a 10-year running average TDS concentration of 370 mg/L or less	December 23, 2014

Description of Commitment	**Compliance Date – as soon as possible, but no later than**
5. Recycled water recharge The recharge of recycled water in the Yucaipa or San Timoteo Management Zones shall be limited to the amount that can be blended with other recharge sources to achieve a 5-year running average equal to or less than the "maximum benefit" objectives for TDS and nitrate-nitrogen for the relevant Management Zone(s). a. Submit baseline report of amount, locations, and TDS and nitrogen quality of stormwater/imported water recharge. b. Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of YVWD enhanced recharge facilities/programs	Compliance must be achieved by end of 5th year after initiation of recycled water use/recharge operations. a. Prior to initiation of construction of basins/other facilities to support enhanced stormwater/imported water recharge. b. Annually, by January 15th, after initiation construction of facilities/implementation of programs to support enhanced recharge.
6. Ambient groundwater quality determination	July 1, 2005 and every 3 years thereafter
7. Replace denitrification facilities (necessary to comply with TIN wasteload allocation specified in Table 5-5)	New facilities shall be operational no later than December 23, 2007
8. YVWD recycled water quality improvement plan and schedule a. Submit plan and schedule b. Implement plan and schedule	a. 60 days after the TDS 12-month running average effluent quality equals or exceeds 530 mg/L for 3 consecutive months and/or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once replacement denitrification facilities are in place) b. Upon approval by Regional Board

Description of Commitment	Compliance Date – as soon as possible, but no later than
9. Remove/reduce the discharge of YVWD effluent from the unlined portion of San Timoteo Creek a. Submit proposed plan/schedule b. Implement plan/schedule	 a. June 23, 2005 b. Upon Regional Board approval
10. Construct the Western Regional Interceptor for Dunlap Acres a. Submit proposed construction plan and schedule. The schedule shall assure the completion of construction as soon as possible but no later than January 1, 2010. b. Implement plan and schedule	 a. June 23, 2005 b. Upon Regional Board approval

A. Description of Yucaipa Valley Water District Commitments

1. Surface Water Monitoring Program (Table 5-9a, # 1)

The YVWD shall develop and submit for Regional Board approval a surface water monitoring program for San Timoteo Creek and the Santa Ana River Reaches 4 and 5. The monitoring program must be implemented within 30 days of Regional Board approval of the monitoring plan, and six months of data must be generated prior to the implementation of any changes made to the effluent discharge points and before any recycled water is used in the Yucaipa or San Timoteo Management Zones.

At a minimum, the surface water monitoring program shall include the collection of monthly measurements of TDS and nitrogen components in San Timoteo Creek and Santa Ana River, Reaches 4 and 5 (see Table 5-9b). Data reports shall be submitted to the Regional Board's Executive Officer by April 15, July 15, October 15 and January 15 each year. An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted by February 15th of each year.

2. Groundwater Monitoring Program (Table 5-9a, #2)

The purpose of the Groundwater Monitoring Program is to identify the effects of the implementation of the San Timoteo and Yucaipa Management Zones maximum benefit water quality objectives on water levels and water quality within the San Timoteo and Yucaipa Management Zones. Prior to discharge of recycled water to the San Timoteo and/or Yucaipa Management Zones, YVWD shall submit to the Regional Board for approval a groundwater monitoring program to determine ambient water quality in the San Timoteo and Yucaipa Management Zones . The groundwater monitoring program must be implemented within 30 days of approval by the Regional Board.

An annual report, including all raw data and summarizing the results of the approved groundwater monitoring program, shall be submitted to the Regional Board by February 15th of each year.

3. Desalters and Brine Disposal (Table 5-9a, #3)

YVWD anticipates that demineralization of groundwater or recycled water will be necessary in the future. YVWD is committed to construct and operate desalting and brine disposal facilities when:

1) The 5-year running average TDS concentration in recycled water produced at the YVWD wastewater treatment plant exceeds 530 mg/L; or

2) The volume-weighted TDS concentration in the Yucaipa Management Zone reaches or exceeds 360 mg/L

The construction of these facilities will be in accordance with a plan and schedule submitted by YVWD and approved by the Regional Board. The schedule shall assure that these facilities are in place within 7 years of Regional Board approval. These facilities shall be designed to stabilize or reverse the degradation trend evidenced by effluent and/or management zone quality.

4. Non-potable water supply distribution system (Table 5-9a, # 4)

A key element of the YVWD's water resources management plan is the construction of a non-potable supply system to serve a mix of recycled water and un-treated imported water for irrigation uses. The intent of blending these sources is to minimize the impact of recycled water use on the Yucaipa and San Timoteo Management Zones.

Parts of this system are under design and construction. A higher proportion of State Project water will be used in wet, surplus years, while larger amounts of recycled

water will be used in dry, deficit years. YVWD will produce a non-potable supply with a running ten-year average TDS concentration less than the “maximum benefit” objective for the Yucaipa Management Zone (370 mg/L).

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Table 5 – 9b

Surface Water Monitoring Sites for Monitoring Water Quality and Quantity
Yucaipa Valley Water District

Site Name	Discharge	Owner	Type	Discharge Frequency	Monitoring Period	Water Quality Monitoring Frequency	Period	Analyses
11057500, Gage	San Timoteo Creek	USGS	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
At Barton Rd.	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
At San Timoteo Canyon Rd.	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
Above confluence Yucaipa Creek	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
Above YVWD Discharge	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
11059300 Gage	Santa Ana River	USGS	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
At Waterman Ave	Santa Ana River	YVWD	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
Recharged to Yucaipa MZ	State Water Project	YVWD	Total Discharge	Monthly	Jan-Dec	Monthly	Jan-Dec	TDS, Nitrate-N
Recharged to Yucaipa MZ	Storm water	YVWD	Total Discharge	Monthly	Jan-Dec	Monthly	Jan-Dec	TDS, Nitrate-N

5. Recycled Water Use (Table 5-9a, # 5)

The use and recharge of recycled water within the Yucaipa Management Zone is a critical component of the YVWD water management plan and is necessary to maximize the use of the water resources of the Yucaipa area. The demonstration of "maximum benefit" and the continued application of the "maximum benefit" objectives depends on the combined recharge (recycled water, imported water, storm water) to the Yucaipa Management Zone of a 5-year annual average (running average) TDS concentration of 370 mg/L and nitrate-nitrogen concentration of 5 mg/L. If recycled water recharge in the proposed San Timoteo Management Zone is pursued, then the application of the "maximum benefit" objectives will depend on the combined recharge to that Zone of 5-year annual average (running average) concentrations of 400 mg/L or less TDS, and 5 mg/L or less nitrate-nitrogen.

To meet this requirement, YVWD will establish a fund to purchase imported water from local sources and/or the State Water Project and will recharge water with a TDS concentration less than 300 mg/L (recent long term historical average of water delivered from the State Project). YVWD will also pursue implementation, with the City of Yucaipa and the San Bernardino County Flood Control District, of the *Yucaipa Water Capture and Resource Management Complex* by December 31, 2010.

Accordingly, the use of recycled water for groundwater recharge in the Yucaipa or San Timoteo Management Zone shall be limited to the amount that can be blended in the management zone on a volume-weighted basis with other sources of recharge to achieve 5-year running average concentrations less than or equal to the "maximum benefit" objectives for the affected groundwater management zone. The 25% nitrogen loss coefficient will be applied in determining the amount of recharge of other water sources that must be achieved to meet the 5-year running average nitrogen concentrations.

6. Ambient Groundwater Quality Determination (Table 5-9a, # 6)

By July 1, 2005, and every three years thereafter, YVWD shall submit a determination of ambient TDS and nitrate-nitrogen quality in the San Timoteo and Yucaipa Management Zones. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen/TDS Task Force to develop the TDS and nitrate-nitrogen "antidegradation" water quality objectives for groundwater management zones within the region. [Ref. 1].

7. Replacement of Denitrification Facilities (Table 5-9a, #7)

YVWD shall replace existing denitrification facilities to provide effluent total inorganic nitrogen quality (6 mg/L) needed to assure compliance with the "maximum benefit" nitrate-nitrogen objective of the San Timoteo and Yucaipa Management Zones (see Wasteload Allocation section of this Chapter). A maximum three year schedule for completion of these facilities will be required. This schedule will be specified in a revised NPDES permit for YVWD's discharges to San Timoteo Creek.

8. YVWD Recycled Water Management (Table 5-9a, #8)

YVWD expects to limit the TDS concentration in its effluent to less than or equal to 540 mg/L by using a low TDS source water supply for potable uses, selective desalting of either source water and/or recycled waters, and minimizing the TDS waste increment. YVWD is currently constructing a 12-MGD treatment plant to treat and serve State Project Water. The plant will also be able to treat low TDS Mill Creek and Santa Ana River water. When necessary, YVWD will construct desalters to reduce either the TDS concentration in water supplied to customers or the TDS concentration in the effluent. YVWD will also use best efforts to enact ordinances and other requirements to minimize the TDS use increment.

Within 60 days after the YVWD 12-month running average concentration for TDS equals or exceeds 530 mg/L for 3 consecutive months, or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once replacement denitrification facilities are in place), YVWD shall submit to the Regional Board a plan and time schedule for implementation of measures to insure that the average agency wastewater effluent quality does not exceed 540 mg/L and 6 mg/L for TDS and TIN, respectively. The plan and schedule are to be implemented upon approval by the Regional Board.

9. Relocation of San Timoteo Creek Discharge (Table 5-9a, #9)

YVWD has established the goal of eliminating its discharge to the unlined reach of San Timoteo Creek by 2008. First priority will be given to the direct reuse and limited recharge of this recycled water in the YVWD service area (principally the area overlying the Yucaipa Management Zone). The District may construct a pipeline to convey the recycled water to the San Jacinto watershed for reuse. The District is also planning the construction of a pipeline to convey recycled water downstream to the lined reach of the Creek (Reach 1A) to minimize recycled water effects on the San Timoteo Management Zone. In the long-term, discharges to this area of the Creek are likely to be infrequent and limited to the wintertime, when the recycled water cannot be used in the YVWD (or potentially, the San Jacinto) service areas. However, YVWD is obligated to maintain flows in the Creek to support existing riparian habitat (State Board Order No. WW-26) and may need to continue recycled water discharges at some level. Groundwater and imported State Project water may also be used as alternative water sources.

Whole or partial removal of the discharge from the unlined reach of San Timoteo Creek would improve the quality of groundwater in the San Timoteo Management Zone and supplement recycled water supplies available for reuse elsewhere in the service area.

By June 23, 2005, YVWD shall submit a proposed plan and schedule to remove/reduce the discharge of recycled water to the unlined reach of San Timoteo Creek. The plan and schedule shall be implemented upon Regional Board approval.

10. Construction of Western Regional Interceptor (Table 5-9a, # 10)

YVWD will construct the Western Regional Interceptor to provide wastewater collection and treatment services to Dunlap Acres in order to mitigate what has been identified as a poor quality groundwater area due to prior agricultural use and existing septic systems. The Dunlap Acres area was inadvertently omitted from the Yucaipa-Calimesa septic tank subsurface disposal system prohibition established by the Regional Board in 1973. The interceptor includes the construction of a major wastewater interceptor pipeline, a force main and pump station. YVWD committed to complete construction of these facilities prior to 2010. Regional Board action may be necessary to require connection of properties to the wastewater collection system, when it is completed.

By June 23, 2005, YVWD shall submit a plan and schedule for construction of the

Interceptor. The Interceptor is to be complete no later than January 1, 2010. YVWD shall implement the plan and schedule upon Regional Board approval.

B. Implementation by Regional Board

1. Revision to Yucaipa Valley Water District NPDES Permit

To implement the "maximum benefit" objectives, the Regional Board will revise the NPDES permit for YVWD wastewater discharges to reflect the commitments described above, as appropriate. This includes the following.

The discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 540 mg/L TDS and 6 mg/L TIN. These limits are based on the "maximum benefit" wasteload allocations shown in Table 5-5. A schedule not to exceed December 23, 2007 for compliance with this TIN limit shall be included in the permit. This schedule will enable YVWD to replace its existing denitrification facilities. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative limits are also specified in Table 5-5. Compliance schedules for these alternative limits will be specified in YVWD's waste discharge requirements, as necessary.

YVWD will be required to implement measures to improve effluent quality when the 12-month running average effluent TDS quality equals or exceeds 530 mg/L for 3 consecutive months, and/or when the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once replacement denitrification facilities are in place).

YVWD's waste discharge requirements will require that recycled water used for recharge shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 5-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the affected management zone (Yucaipa or San Timoteo). Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified for recycled water recharge in these management zones.

The effluent limits for YVWD, which establish an upper limit on TDS and TIN concentrations of recycled water discharged in the Yucaipa and/or San Timoteo Management Zones, are a cornerstone of the maximum benefit demonstration. The cap on effluent TDS and TIN concentrations provides a controlling point for management of TDS and nitrogen water quality. YVWD will be required to initiate the building of a desalter and brine disposal line when the 5-year running average TDS in YVWD's effluent reaches 530 mg/L, or when the volume weighted-average TDS concentration in the Yucaipa Management Zone reaches 360 mg/L. YVWD will immediately implement a salt management program to reduce the salts entering the District's wastewater treatment plant. This salt management program will include: 1) provision of incentives for the removal of on-site regenerative water softeners and the

use of off-site regenerative systems; and 2) percolation of State Water Project water into the Yucaipa Management Zone when State Water Project water has low TDS. Implementing these measures will assure that the groundwater quality remains at or below the Yucaipa Management Zone objective of 360 mg/L TDS. Maintenance of this ambient groundwater quality is necessary, in turn, to assure that YVWD's wastewater treatment facility is able to meet the effluent TDS limits. Yucaipa Management Zone groundwater is a significant component of the water supplied in YVWD's service area, and its quality thus has an important effect on effluent quality. Poor ambient quality will preclude YVWD from meeting effluent limits without desalting.

YVWD will be required to submit proposed plans and schedules for the removal/reduction of its wastewater discharges from the unlined reach of San Timoteo Creek and for the construction of the Western Regional Interceptor. YVWD's revised permit will also reflect the surface and groundwater monitoring program requirements described above. This includes the determination of ambient quality in the San Timoteo and Yucaipa Management Zones.

2. Review of Project Status

No later than 2005, and every three years thereafter (to coincide with the Regional Board's triennial review process), the Regional Board intends to review the status of the activities planned and executed by the YVWD to demonstrate maximum benefit and justify continued implementation of the "maximum benefit" water quality objectives. This review is intended to determine whether the commitments specified above and summarized in Table 5-9a are met. As indicated above, if, as a result of this review, the Regional Board finds that the YVWD commitments are not met and after consideration at a duly noticed Public Hearing, the Regional Board will make a finding that the lowering of water quality associated with TDS and nitrate-nitrogen water quality objectives that are higher than historical water quality (the "antidegradation" objectives) is not of maximum benefit to the people of the state. By default, the scientifically derived "antidegradation" objectives for the San Timoteo (300 mg/L for TDS, 2.7 mg/L for nitrate-nitrogen) and Yucaipa (320 mg/L for TDS and 4.2 mg/L for nitrate-nitrogen Management Zones would become effective (see Chapter 4).

Furthermore, in the event that the projects and actions specified in Table 5-9a are not implemented, the Regional Board will require that the YVWD mitigate the adverse water quality effects, both on the immediate and downstream waters, that resulted from the recycled water discharges based on the "maximum benefit" objectives.

2. San Timoteo and Beaumont Management Zones – City of Beaumont and San Timoteo Watershed Management Authority (STWMA)

As shown in Chapter 4, two sets of TDS and nitrate-nitrogen objectives have been adopted for both the San Timoteo and Beaumont Management Zones: the "maximum benefit" objectives and objectives based on historic ambient quality (the "antidegradation" objectives). The application of the "maximum benefit" objectives for these Management Zones is contingent on the implementation of commitments by the City of Beaumont/STWMA (and, in the case of the San Timoteo Management Zone, by the Yucaipa Valley Water District (YVWD; see preceding discussion)) to implement a specific water and wastewater resources management program [Ref. 10E]. This program is part of a coordinated effort by the member agencies of STWMA to develop and implement projects that will assure reliable water supplies to meet rapidly increasing demands in this area. The San Timoteo Watershed Management Program (STWMP) developed by STWMA entails enhanced recharge of native and recycled water, maximizing the direct use of recycled water, optimizing the direct use of imported water, recharge and conjunctive use.

Wastewater collection and treatment services in the STWMA service area are provided by the City of Beaumont, as well as YVWD. Beaumont discharges tertiary treated wastewater to Coopers Creek, a tributary of San Timoteo Creek, Reach 3. This unlined reach of the Creek overlies and recharges the San Timoteo groundwater management zone.

Table 5-10a identifies the projects and requirements that must be implemented by Beaumont/STWMA to demonstrate that water quality consistent with maximum benefit to the people of the state will be maintained. STWMA, acting for all its member agencies, has committed to conduct the regional planning and monitoring activities necessary to implement these "maximum benefit" commitments, and the San Timoteo Watershed Management Program as a whole. Table 5-10a also specifies an implementation schedule. The Regional Board will revise the City of Beaumont's waste discharge requirements and take other actions as necessary to require that these commitments be met. It is assumed that maximum benefit is demonstrated, and that the "maximum benefit" water quality TDS and nitrate-nitrogen objectives apply to the Beaumont and San Timoteo Management Zones, as long as the schedule is being met[7]. If the Regional Board determines that the maximum benefit program is not being implemented effectively in accordance with the schedule shown in Table 5-10a (and in the case of the San Timoteo Management Zone, the commitments and schedule shown in Table 5-9a (see preceding section)), then maximum benefit is not demonstrated, and the "antidegradation" TDS and nitrate-nitrogen objectives apply. In this situation, the Regional Board will require mitigation for TDS and nitrate-nitrogen discharges

[7] Application of "maximum benefit" objectives for the San Timoteo Management Zone is also contingent on the timely implementation of the commitments by the Yucaipa Valley Water District which are discussed in the preceding section.

affecting these management zones that took place in excess of limits based on the "antidegradation" objectives.

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Table 5-10a

City of Beaumont and San Timoteo Watershed Management Authority
Maximum Benefit Commitments

Description of Commitment	**Compliance Date – as soon as possible, but no later than**
1. Surface Water Monitoring Program a. Submit Draft Monitoring Program to Regional Board b. Implement Monitoring Program c. Quarterly data report submittal d. Annual data report submittal	 a. January 23, 2005 b. Within 30 days from Regional Board approval of monitoring plan c. April 15, July 15, October 15, January 15 d. February 15th
2. Groundwater Monitoring Program a. Submit Draft Monitoring Program to Regional Board b. Implement Monitoring Program c. Annual data report submittal	 a. January 23, 2005 b. Within 30 days from Regional Board approval of monitoring plan c. February 15th
3. Desalter(s) and Brine Disposal Facilities Submit plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to be operational as soon as possible but no later than 7 years from date of Regional Board approval of plan/schedule. b. Implement the plan and schedule	 a. Within 6 months of either of the following: i. When Beaumont's effluent 5-year running average TDS exceeds 480 mg/L; and/or ii. When volume weighted average concentration in the Yucaipa MZ of TDS exceeds 320 mg/L b. Within 30 days from Regional Board approval of monitoring plan
4. Non-potable water supply Implement non-potable water supply system to serve water for irrigation purposes. The non-potable supply shall comply with a 10-year running average TDS concentration of 330 mg/L or less	 December 23, 2014

Description of Commitment	**Compliance Date – as soon as possible, but no later than**
5. Recycled water recharge The recharge of recycled water in the Beaumont or San Timoteo Management Zones shall be limited to the amount that can be blended with other recharge sources to achieve a 5-year running average equal to or less than the "maximum benefit" objectives for TDS and nitrate-nitrogen for the relevant Management Zone(s). a. Submit baseline report of amount, locations, and TDS and nitrogen quality of stormwater/imported water recharge. b. Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of City of Beaumont/STWMA enhanced recharge facilities/programs	Compliance must be achieved by end of 5th year after initiation of recycled water use/recharge operations. a. Prior to initiation of construction of basins/other facilities to support enhanced storm/water imported water recharge . b. Annually, by January 15th, after initiation construction of facilities/implementation of programs to support enhanced recharge.
6. Ambient groundwater quality determination	July 1, 2005 and every 3 years thereafter
7. Replace denitrification facilities (if necessary to comply with TIN wasteload allocation specified in Table 5-5)	Compliance with 6 mg/L TIN limitation to be achieved by December 23, 2007
8. City of Beaumont recycled water quality Improvement plan and schedule a. Submit plan and schedule b. Implement plan and schedule	a. 60 days after the TDS 12-month running average effluent quality equals or exceeds 480 mg/L for 3 consecutive months and/or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once facility/operational changes needed to achieve 6 mg/L TIN are in place) b. Upon approval by Regional Board
9. Remove/reduce the discharge of Beaumont Effluent From the unlined portion of San Timoteo Creek a. Submit proposed plan/schedule b. Implement plan/schedule	a. June 23, 2005 b. Upon Regional Board approval

A. Description of City of Beaumont, San Timoteo Watershed Authority Commitments

1. Surface Water Monitoring Program (Table 5-10a, #1)

The City of Beaumont and the STWMA shall develop and submit for Regional Board approval a surface water monitoring program for San Timoteo, Little San Gorgonio and Noble Creeks at the locations listed in Table 5-10b. The monitoring program must be implemented within 30 days of Regional Board approval of the monitoring plan, and six months of data must be generated prior to the implementation of any changes to the effluent discharge points and before any recycled water is used in the Beaumont or San Timoteo Management Zones.

At a minimum, the surface water monitoring program shall include the collection of monthly measurements of TDS and nitrogen components at locations in San Timoteo, Little San Gorgonio and Noble Creeks (see Table 5-10b). Data reports shall be submitted to the Regional Board's Executive Officer by April 15, July 15, October 15 and January 15 each year. An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted February 15th of each year.

2. Groundwater Monitoring Program (Table 5-10a. #2)

The purpose of the groundwater monitoring program is to identify the effects of the implementation of the Beaumont and San Timoteo Management Zone maximum benefit TDS and nitrate-nitrogen water quality objectives on water levels and water quality within the Beaumont and San Timoteo Management Zones. Prior to discharge of recycled water to the Beaumont and/or San Timoteo Management Zone, the City of Beaumont and the STWMA shall submit to Regional Board for approval a groundwater monitoring program to determine ambient water quality in the Beaumont and San Timoteo Management Zones. The groundwater monitoring program must be implemented within 30 days of approval by the Regional Board.

An annual report, including all raw data and summarizing the results of the approved groundwater monitoring program, shall be submitted to the Regional Board by February 15th of each year.

3. Desalters and Brine Disposal (Table 5-10a. #3)

The City of Beaumont and the STWMA shall construct and operate desalting facilities and brine disposal facilities when:

a. The 5-year running average TDS concentration in recycled water produced at the City of Beaumont wastewater treatment plant exceeds 480 mg/L, or

b. The volume-weighted TDS concentration in the Beaumont Management Zone equals or exceeds 320 mg/L.

The construction of these facilities will be in accordance with a plan and schedule submitted by Beaumont/STWMA and approved by the Regional Board. The schedule shall assure that these facilities are in place within 7 years of Regional Board approval. These facilities shall be designed to stabilize or reverse the degradation trend evidenced by effluent and/or management zone quality.

Table 5 – 10b

Surface Water Monitoring Sites for Monitoring Water Quality and Quantity
City of Beaumont & San Timoteo Watershed Management Authority

Site Name	Discharge	Owner	Type	Discharge Frequency	Monitoring Period	Water Quality Monitoring Frequency	Period	Analyses
Above confluence With Coopers Cr.	San Timoteo Creek	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
Near Hinda Sec.35 T2S,R2W	San Timoteo Creek	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
Above confluence With San Timoteo Creek	Coopers Creek	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
At Freeway 10	Little San Gorgonio Cr.	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
At Freeway 10	Noble Creek	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly	Jan-Dec	TDS, TIN, Physical
Recharged to Beaumont MZ	State Water Project	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Monthly	Jan-Dec	TDS, Nitrate-N
Recharged to Beaumont MZ	Storm water	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Monthly	Jan-Dec	TDS, Nitrate-N

4. Non-potable water supply distribution system (Table 5-10a, #4)

Like YVWD, the City of Beaumont is constructing a non-potable water system that will convey untreated State Project water and recycled water for irrigation within its service area. The intent of blending these sources is to minimize the impact of recycled water use on groundwater quality in the proposed Beaumont and San Timoteo Management Zones. A higher proportion of State Project water will be used in wet, surplus years, while larger amounts of recycled water will be used in dry, deficit years.

5. Recycled Water Use (Table 5-10a, #5)

The use of recycled water within the Beaumont Management Zone is a critical component of the City of Beaumont and STWMA water management plan and is necessary to maximize the use of the water resources of the Beaumont area.

The demonstration of "maximum benefit" and the continued application of the "maximum benefit" objectives depends on the combined recharge (recycled water, imported water, storm water) to the Beaumont Management Zone of a 5-year annual average (running average) TDS concentration of 330 mg/L and a nitrate-nitrogen concentration of 5 mg/L. If recycled water recharge in the San Timoteo Management Zone is pursued, then the application of the "maximum benefit" objectives will depend on the combined recharge to that Zone of 5-year annual average (running average) concentrations of 400 mg/L or less TDS, and 5 mg/L or less nitrate-nitrogen.

To comply with this requirement, the STWMA member agencies are developing plans to recharge and store State Project water in the proposed Beaumont Management Zone. The Beaumont-Cherry Valley Water District (BCVWD) is developing a new 80-acre groundwater recharge project that will increase storm water recharge in the Beaumont Basin by 4,100 acre-ft/yr. This facility will also be used to recharge State Water project water. The City of Beaumont is also developing storm water recharge in facilities in newly developing areas, which is expected to result in the recharge of an additional 2,400 acre-ft/yr of stormwater runoff.

Accordingly, the use of recycled water for use or recharge in the Beaumont or San Timoteo Management Zone shall be limited to the amount that can be blended on a volume-weighted basis with other sources of recharge to achieve 5-year running average concentrations less than or equal to the "maximum benefit" objectives for the affected groundwater management zone. The 25% nitrogen loss coefficient will be applied in determining the amount of recharge of other water sources that must be achieved to meet the 5-year running average nitrogen concentrations.

6. Ambient Groundwater Quality Determination (Table 5-10a, # 6)

By July 1, 2005, and every three years thereafter, the City of Beaumont and STWMA shall submit a determination of ambient TDS and nitrate-nitrogen quality in the Beaumont and San Timoteo Management Zones. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen /TDS Task Force to develop the TDS and nitrate-nitrogen "antidegradation" water quality objectives for groundwater management zones within the region [Ref. 1].

7. Replacement/modification of denitrification facilities (Table 5-10a, #7)

The City of Beaumont has committed to produce recycled water with a 12-month average TIN concentration of 6 mg/L or less by 2008. This may be accomplished via operational changes, or may require the installation/modification of facilities. This TIN effluent quality is specified in the TIN wasteload allocation (see Table 5-5) and is necessary to assure compliance with the proposed "maximum benefit" nitrate-nitrogen objective for the Beaumont and San Timoteo Management Zones (5 mg/L). An appropriate schedule, not to exceed December 23, 2007 for compliance with this effluent limit will be specified in a revised NPDES permit for the City.

8. City of Beaumont Wastewater Management (Table 5-10a, #8)

Beaumont expects to limit the TDS concentration in its effluent to less than or equal to 490 mg/L by using a low TDS source water supply for potable uses, selective desalting of either source water and/or recycled waters, and minimizing the TDS waste increment.

Within 60 days after the Beaumont 12-month running average concentration for TDS equals or exceeds 480 mg/L for 3 consecutive months, or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once facility/operational changes needed to achieve 6 mg/L TIN are in place), the City of Beaumont shall submit to the Regional Board a plan and time schedule for implementation of measures to insure that the average agency wastewater effluent quality does not exceed 490 mg/L and 6 mg/L for TDS and TIN, respectively. The plan and schedule are to be implemented upon approval by the Regional Board.

9. Relocation of San Timoteo Creek Discharge (Table 5-10a, #9)

Like YVWD, Beaumont has established the goal of eliminating its discharge to the unlined reach of San Timoteo Creek by 2008 to minimize the impacts of these discharges on the San Timoteo Management Zone. The STWMP anticipates that Beaumont's recycled water will be almost completely reused within the Beaumont area for landscape irrigation, habitat enhancement, and potentially for groundwater recharge. Like YVWD, Beaumont and STWMA are also considering the export of a portion of Beaumont's surplus recycled water to the San Jacinto basin, where the

TDS objectives are higher than those for the Beaumont Management Zone and recycled water demands are greater than supplies. Some limited recycled water discharge to Coopers Creek and thence /San Timoteo Creek may need to be continued to support existing riparian habitat.

Whole or partial removal of the discharge from the unlined reach of San Timoteo Creek would improve the quality of groundwater in the San Timoteo Management Zone and supplement recycled water supplies available for reuse elsewhere in the service area.

By June 23, 2005, Beaumont/STWMA shall submit a proposed plan and schedule to remove/reduce the discharge of recycled water to the unlined reach of San Timoteo Creek. The plan and schedule shall be implemented upon Regional Board approval.

B. Implementation by Regional Board

1. Revision of City of Beaumont NPDES Permit

To implement the "maximum benefit" objectives, the Regional Board will revise the NPDES permit for the City of Beaumont wastewater discharge to reflect the commitments described above, as appropriate. This includes the following.

The discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 490 mg/L TDS and 6 mg/L TIN. These limits are based on the wasteload allocation shown in Table 5-5. A schedule not to exceed December 23, 2007 for compliance with this TIN limit shall be included in the permit. This schedule will enable Beaumont to make the necessary facility/operational changes. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative limits are also specified in Table 5-5. Compliance schedules for these alternative limits will be specified in Beaumont's waste discharge requirements, as necessary.

Beaumont will be required to implement measures to improve effluent quality when the 12-month running average effluent TDS quality equals or exceeds 480 mg/L for 3 consecutive months, and/or when the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once the facility/operational changes necessary to assure compliance with the 6 mg/L limit are in place).

Beaumont's waste discharge requirements will require that recycled water used for recharge shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 5-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the affected management zone (Beaumont or San Timoteo).

The effluent limits for the City of Beaumont, which establish an upper limit on TDS and TIN concentrations of recycled water discharged in the management zones, are

a key part of the maximum benefit demonstration. The cap on effluent TDS and TIN concentrations provides a controlling point for management of TDS and nitrogen water quality. The City of Beaumont has committed to initiate the building of a groundwater desalter and brine disposal line when the TDS in the City's effluent reaches 480 mg/L. Further, the City will immediately implement a salt management program to reduce the salts entering the City's wastewater treatment plant. This salt management program will include: 1) provision of incentives for the removal of on-site regenerative water softeners and the use of off-site regenerative systems; and 2) percolation of State Water Project water into the Beaumont Management Zone when State Water Project water has low TDS. Implementing these measures will assure that the groundwater quality remains at or below the Beaumont management zone objective of 330 mg/L TDS. Maintenance of this ambient groundwater quality is necessary, in turn, to assure that the City's wastewater treatment facility is able to meet the effluent TDS limits. Beaumont Management Zone groundwater is a component of the water supplied to the City and its quality thus has an important effect on the effluent quality. Poor ambient quality will preclude the City from meeting effluent limits without desalting.

Beaumont will be required to submit a proposed plan and schedule for the removal/reduction of its wastewater discharges from the unlined reach of San Timoteo Creek. Beaumont's revised permit will also reflect the surface and groundwater monitoring program requirements described above. This includes the determination of ambient quality in the San Timoteo and Beaumont Management Zones.

2. Review of Project Status

No later than 2005, and every three years thereafter (to coincide with the Regional Board's triennial review process), the Regional Board intends to review the status of the activities planned and executed by the City of Beaumont and STWMA to demonstrate maximum benefit and justify continued implementation of the "maximum benefit" water quality objectives. This review is intended to determine whether the commitments specified above and summarized in Table 5-10a are met. As indicated above, if, as a result of this review, the Regional Board finds that the City of Beaumont and STWMA commitments are not met and after consideration at a duly noticed Public Hearing, the Regional Board will make a finding that the lowering of water quality associated with TDS and nitrate-nitrogen water quality objectives that are higher than historical water quality (the "antidegradation" objectives) is not of maximum benefit to the people of the state. By default, the scientifically derived "antidegradation" objectives for the Beaumont and San Timoteo Management Zones would become effective (230 mg/L TDS and 1.5 mg/L nitrate-nitrogen for the Beaumont Management Zone; 300 mg/L TDS and 2.7 mg/L nitrate-nitrogen for the San Timoteo Management Zone (see Chapter 4).

Furthermore, in the event that the projects and actions specified in Table 5-10a are not implemented, the Regional Board will require that the City of Beaumont and STWMA mitigate the adverse water quality effects, both on the immediate and

downstream waters, that resulted from the recycled water discharges based on the "maximum benefit' objectives. As for CBW/IEUA and YVWD, discharges in excess of the antidegradation objectives that must be considered for mitigation include both recycled water and imported water, at TDS concentrations in excess of the antidegradation objectives. Mitigation by groundwater extraction and desalting must be adjusted to address concentrations of salt and nitrogen in the basin, not simply salt load.

(End of Salt Management Plan Section) (End of Resolution R8-2004-0001)

NONPOINT SOURCE PROGRAM

Considerable improvements in water quality have been achieved in the nation through the control of point source discharges such as those from sewage treatment plants or industrial facilities. It is now recognized that in many areas, nonpoint source inputs, such as urban nuisance flows and stormwater runoff, are the principal sources of contaminant inputs to surface and groundwaters.

In contrast to point sources, which discharge wastewater of predictable quantity and quality at a discrete point (usually at the end of a pipe), nonpoint source inputs are diffuse in origin and variable in quality. Management of nonpoint source inputs is in many ways more difficult to achieve, since it requires an array of control techniques customized to local watershed conditions.

Nonpoint Source Management Plan

Section 319 of the 1987 amendments to the Clean Water Act (33 USC 466 *et seq.*), established the framework for nonpoint source activities. Section 319 requires each state to prepare a Nonpoint Source Management Plan and to conduct an assessment of the impact nonpoint sources have on the state's waterbodies. In response to these requirements, the State Board adopted the Nonpoint Source Management Plan (NPSMP) in 1988 and the Water Quality Assessment in 1990 (see Chapter 6 for a discussion of the Water Quality Assessment). The NPSMP establishes a statewide policy for managing nonpoint source inputs to California's waters and is part of this Basin Plan.

The State Board defined six objectives of the Nonpoint Source Management Plan, four of which apply to activities in the Santa Ana Region:

1. Initiate and institutionalize activities for control of nonpoint source pollution (drainage from urban activities, agriculture, silviculture, abandoned mines construction, grazing, hydrologic modification, and individual disposal systems). These activities include outreach, education, public participation, technical assistance, financial assistance, interagency coordination, and demonstration projects.

A major part of the Regional Board staff's nonpoint source activities is participation in outreach activities. Board staff attend committee meetings to exchange information and to coordinate planning efforts among the various agencies in the region. Staff also coordinates with other public agencies and citizens' groups engaged in protecting water quality form nonpoint source impacts, generally by participating in technical advisory committees. Regional outreach activities are also beginning to include identification of best management practices such as education, information dissemination, and structural and nonstructural water quality controls.

2. Fund contracts for nonpoint source projects selected for nonpoint source grant funding in State Fiscal Year 1992-93. Regional water Board staff will also participate in these projects and provide technical assistance.

   Regional Board staff has managed or acted in an advisory capacity for a number of nonpoint source grant funded contracts. These projects have included Newport Bay studies to develop a hydrodynamic model of the Bay as well as a study to monitor sources of toxics into the Bay.

3. Initiate nonpoint source watershed pilot programs on nine watersheds in the state.

   San Diego Creek was designated as the region's pilot watershed project. The Creek's water quality has been impaired by excessive sedimentation, nitrates, pesticides, and metals originating from point and nonpoint sources (see the following discussion on the Newport Bay Watershed). In addition, the Upper Newport Bay Dredging Project was identified as the Region's focused nonpoint source watershed project. The U.S. Army Corps of Engineers, under Congressional authorization, is investigating dredging Upper Newport Bay to deepen the channel. The Army Corps of Engineers' activities could modify the Upper Bay's water quality and currents. Regional Board staff are aiding the Army Corps of Engineers in their development of preliminary ideas so as to prevent potential water quality degradation.

4. Implement the requirements of the 1990 Reauthorization of the Coastal Zone Management Act (CZMA) which requires the State Water Board and the California Coastal Commission to develop and implement an enforceable nonpoint source program in the coastal zone.

   The reauthorization of the CZMA, together with specific guidance from the US EPA and the National Oceanic & Atmospheric Administration (NOAA), requires coastal states to develop coastal nonpoint pollution control programs. These programs are to implement management measures for the control of land uses which contribute nonpoint source pollution to coastal waters. Management measures, which include specific measures for mitigating water quality impacts, are specified for the following land uses: agriculture; gazing; confined animal facilities; forestry; urban development; roads; marinas and recreational boating; hydromodification; and mines. The state's coastal program is to be considered for approval by the US EPA and NOAA in July 1995.

Revision of the NPSMP has been initiated. The revised NPSMP will go beyond the requirements of the Coastal Zone Management Act by specifying management measures that are applicable throughout the state. There will also be more of an emphasis placed on watershed based nonpoint source controls in the revised NPSMP. To develop these management measures, the State Board is forming Task Force Committees composed of experts in the various nonpoint source categories. The management measures developed by the Task Force Committee will be reviewed by an oversight committee made up of State and Regional Board staff prior to inclusion in the revised NPSMP. The anticipated date of completion of the revised NPSMP is in 1995.

Some major nonpoint source problems which have been addressed in the Santa Ana Region include:

- Urban runoff: addressed through the stormwater permitting program;
- Animal confinement facilities: addressed through the Dairy Regulatory Strategy;
- On-site disposal system: addressed through prohibitions and the Minimum Lot-Size Criteria; and
- Erosion/sedimentation in the Newport Bay watershed: addressed through the implementation of the Areawide 208 Plan.

Stormwater Program

The 1987 Clean Water Act amendments required the U.S. Environmental Protection Agency (US EPA) to establish regulations to control stormwater discharges associated with industrial activity, and discharges from large and medium municipal separate storm sewer systems. Large municipal separate storm sewer systems serve a population of 250,000 or more and medium municipal separate storm sewer systems serve a population of more than 100,000 but less than 250,000. On November 16, 1990, EPA published the final regulations that established the National Pollutant Discharge Elimination System (NPDES) permit requirements for discharges of stormwater from large and medium municipal separate storm sewer systems and stormwater discharges associated with industrial activities, including construction activities.

The stormwater NPDES permitting program is administered by the State Board and the Regional Boards.

A. Municipal Stormwater Discharge Permits

Prior to the promulgation of EPA's final regulations, the Santa Ana Regional Water Quality Control Board adopted areawide urban NPDES stormwater permits for each of the three counties in the Region. As shown in Table 5-9, as part of the areawide urban permits, the counties are named as the principal permittee and the incorporated cities are named as co-permittees. These permits require the development and

implementation of programs to identify and eliminate illegal/illicit discharges to municipal stormwater conveyance systems, the development and implementation of best management practices (BMPs) to reduce pollutants in stormwater and urban runoff, and the development and implementation of monitoring programs.

Table 5-9
Municipal
Stormwater Permits
Santa Ana Region

Municipality	Order Number	Date Issued
Orange County Environmental Management Agency, the County of Orange, and 23 incorporated cities	90-071 NPDES - CA8000180	7/12/90
Riverside County Flood Control and Water Conservation District, the County of Riverside, and 13 incorporated cities	90-104 NPDES - CA8000192	7/13/90
San Bernardino County Transportation and Flood Control Department, the County of San Bernardino, and 16 incorporated cities	90-136 NPDES - CA8000200	10/19/90

B. Industrial and Construction Stormwater Discharge Permits

The federal regulations identify eleven industrial categories which are subject to stormwater discharge permitting:

1. Facilities subject to stormwater effluent guidelines (40 CFR Subchapter N);
2. Manufacturing facilities;
3. Mining and Oil and Gas facilities;
4. Hazardous waste treatment, storage or disposal facilities;
5. Landfills, land application sites, and open dumps that receive industrial waste;
6. Recycling facilities such as metal scrap yards, battery reclaimers, salvage yards, and automobile yards;
7. Steam electric generating facilities;
8. Transportation facilities;
9. Sewage treatment plants;
10. Construction activities; and
11. Certain facilities if materials are exposed to stormwater.

As shown these categories include construction activities (#10), which are covered by a separate permit in the State of California (see below).

To satisfy the federal requirements, the State Board issued two general permits: the General Industrial Activities Stormwater Permit (State Board Order No. 91-13-DWQ as amended by State Board Order No. 92-12-DWQ); and the General Construction Activity Stormwater Permit (State Board Order No. 92-08-DWQ). Industrial facilities and proponents of construction projects must file a Notice of Intent (NOI) with the State Board to be covered under the applicable general permit.

The General Industrial Activities Stormwater Permit requires dischargers to comply with federal regulations to reduce or eliminate industrial stormwater pollution, to develop and implement a stormwater pollution prevention plan, and to perform monitoring of stormwater discharges. This permit covers stormwater discharges from all the listed categories of industrial activity, except construction activities.

The General Construction Activity Stormwater Permit addresses stormwater discharges associated with a construction activity where grading, clearing, and excavation results in a land disturbance of five acres of more. A stormwater discharge from a construction resulting in a land disturbance of less than five acres also requires a permit if the construction is a part of a larger common plan of development or sale.

The use of general permits to regulate these various types of stormwater discharges streamlines the permitting process, which greatly benefits the Regional Board. It is also the least costly way for a discharger to obtain a permit and comply with federal and state regulations.

For industrial and construction activities in the Region, it is the Regional Board's responsibility to enforce the General Industrial Activities and General Construction Activity stormwater permits. In addition to these general permits, the Regional Board has issued and will continue to issue individual permits for stormwater dischargers if warranted by the character of the discharges and/or sensitivity of the receiving waters.

Animal Confinement Facilities (Dairies)

As described earlier in this chapter, one of the most significant water quality problems confronting the region is increasing concentrations of TDS and nitrates in the groundwater. This problem is particularly acute in those groundwater subbasins without assimilative capacity, including the Chino II and III Groundwater Subbasins (Subbasins changed by December 22, 2004 amendment).

In 1989-90, the Regional Board conducted a special investigation of the salt balance problem in the Chino Basin, described in "Dairies and Their Relationship to Water Quality Problems in the Chino Basin" or Dairy Report [Ref. 10]. The findings of this study showed that while irrigated agriculture and municipal wastewater disposal are contributors to the degradation, wastes form dairies and other animal confinement facilities play an overwhelmingly significant role.

Dairy operations began in the Chino Basin about 40 years ago and continue intensively today. In fact, the Chino Basin contains the highest concentration of dairy animals found anywhere in the world. Within an area of about 15,000 acres, there are approximately 300 dairies, housing about 300,000 animals. These animals produce approximately 0.5 million tons (dry weight) per year of manure. Significant quantities of water are used to wash the cows prior to milking. Both this wastewater and the manure contain significant quantities of salts (TDS and nitrogen). The Regional Board's studies showed that close to 30,000 tons of salts reach Chino Basin groundwater every year as a result of the disposal of these dairy wastes.

Dairy operations and waste disposal practices can also affect the quality of surface waters. Discharges of washwater and/or runoff of stormwater which has come into contact with manure contribute salts and other pollutants to receiving streams, which ultimately flow into the Santa Ana River. While the Regional Board prohibits these discharges (with the exception of stormwater under certain conditions), these discharges do occur as a result of inadequate construction and maintenance of containment facilities. Drainage from upstream urban areas exacerbates this problem.

The quality of the Santa Ana River is affected indirectly as well: significant quantities of the poor quality groundwater in the Chino Basin rise to the surface and enter the River just upstream of Prado Dam. The TDS and nitrogen problems in the Santa Ana River, which are addressed by the implementation of wasteload allocations, have been described previously. The failure to address and correct the water quality problems in the Chino Basin could compromise the effectiveness of the water quality improvements implemented by the sewage treatment plants in response to those allocations.

The Regional Board initiated a regulatory program to address the water quality impacts of the salt loads from dairy operations in 1972. Waste discharge requirements are issued to all dairies and other significant animal confinement facilities. (See the Dairy Report for a detailed description of the Regional Board's waste discharge requirements). However, the Regional Board's studies demonstrated that changes in this regulatory program were necessary.

The Regional Board developed a revised regulatory strategy, working closely with dairy industry representatives. As described in the Dairy Report, it consists of a comprehensive, three part program. Part I is designed to address the present and future impacts from ongoing dairy activities. Part II addresses the impacts from past dairy activities, and Part III addresses the need for improved drainage facilities upstream of and within the dairy area. Although termed a "dairy" regulatory strategy, the strategy is intended to apply to <u>all</u> animal confinement facilities within the Chino Basin. The term "dairy" is used here for simplicity.

Part I. Dairy Waste Discharge Requirements: Impacts of Ongoing Operations

The first part of the strategy addresses dairy waste discharge requirements and the impacts of ongoing operations. Four specific changes to the dairy regulatory program are included: an improved manure tracking system; inclusion of groundwater monitoring requirements for dairy operators; submittal of engineered waste

management plans; and revision of waste discharge requirements to prohibit dairy waste disposal unless suitable offset programs are implemented.

1. Implementation of Manure Tracking and Reporting System

The Regional Board determined that the manure tracking system in use was not adequate to determine the full effects of dairy waste management practices on groundwater quality nor was it adequate to determine compliance with waste discharge requirements related to manure disposal.

In response, a new manure tracking manifest form was developed and is now being used. Dairy operators are required to complete the form and submit it annually in a report to the Regional Board.

2. Implementations of Groundwater Monitoring Requirements

Comprehensive groundwater quality data is necessary for planning mitigation activities in the Chino Basin. Groundwater monitoring requirements will be included in the waste discharge requirements for all dairy operators in the Chino Basin. The WDRs will provide the operators with the option of participating in an established, comprehensive groundwater monitoring program in lieu of their individual monitoring efforts. Such a monitoring program is now being conducted by the Chino Basin Watermaster.

3. Preparation of an Engineered Waste Management Plan as part of the Report of Waste Discharge

Historically, the Regional Board has required that dairy operators provide a general description of their proposed containment controls as part of the Report of Waste Discharge (ROWD). Experience has shown, however, that this is not adequate and that illegal discharges of manured water occur due to improper design, construction, and maintenance of containment controls.

To address this problem, the Regional Board now requires that a waste management plan be prepared by a registered engineer, member of the Soil Conservation Service or others who are suitably qualified. This plan must address containment of all washwater and stormwater runoff, as well as protection of the facility from inundation, as required by the waste discharge requirements. For any given property, the engineering plan must address necessary containment controls for the property as a whole, even in situations where some portion of that property is leased, subleased or operated by another party (for example, cultivation of agricultural crops by a farmer on a portion of dairy property).

Engineered waste management plans are required to be submitted as part of the ROWD for new or substantially modified dairy operations. These plans are also

required when the containment controls at facilities are known or suspected to be inadequate.

4. Revision of the Manure and Washwater Disposal Requirements

As noted earlier, the Chino II and III Groundwater Subbasins lack assimilative capacity for additional salt inputs. In basins without assimilative capacity, mineral increments are not permitted when regulating waste discharges (see preceding section on salt balance and assimilative capacity, State Board Order No. 73-4, the Rancho Caballero decision [Ref. 7]). To meet the Chino Basin groundwater objectives, the discharge of manure and dairy washwater and their application as fertilizer and irrigation water cannot be legally permitted.

The implications of prohibiting manure and washwater disposal are significant. Recognizing this, the strategy allows for the implementation of programs to offset the salt loads contributed by ongoing manure/washwater disposal. An offset program would work as follows: for every ton of salt that will reach groundwater as a result of continued disposal/application of manure or washwater within the Chino Basin, the dairy operator must remove an equivalent amount of salt from the Basin through participation in a desalter or other appropriate means. The offsets required of the dairy industry would depend on the industry's success in identifying acceptable methods of manure and wastewater disposal; the more manure and washwater that is removed form the basin, the less need there is for offset.

The strategy calls for the waste discharge requirements for dairy operators in the Chino Basin to "prohibit the disposal of manure and washwater, and their application as fertilizer or irrigation water in the Chino Basin unless the dairy operator participates in an offset program. The offset program must ensure that water quality impacts of continued manure and/or washwater disposal/application practices are mitigated."

Implementation of this element of the dairy regulatory strategy has been withheld since acceptable mitigation projects are now being developed. As described in the preceding section the selected TDS and nitrogen management plan (Alternative 5C) includes two desalters in the Chino Basin, which are being built by the Santa Ana Watershed Project Authority and other participating agencies. These desalters, though not designed or implemented specifically to address ongoing dairy salt loading, will provide sufficient groundwater treatment and salt loads identified in Alternative 5C. This includes the salt loads from present and future dairy operations and other agriculture, unsewered areas, and other sources.

Part II. Impacts of Past Dairy Operations

This part of the dairy regulatory strategy addresses the mitigation of water quality impacts caused by past discharges of dairy waste in the Chino Basin.

While the two desalters mentioned above should be adequate to offset present and future salt wasteloads, they will not provide sufficient groundwater treatment to address the historic contributions of salts from long-term dairy or other agricultural activities, municipal wastewater disposal, etc. These historic salt inputs must be addressed to protect the beneficial uses of the Basin's groundwaters and to prevent long-term adverse impacts to the Santa Ana River.

Additional desalters or other treatment facilities and strategies will be necessary. The implementation of these measures may have significant costs. To be equitable, each of the sources of TDS and nitrogen input to the Basin, including dairies, other types of agriculture, and municipalities, should assume its fair share of the Chino Basin cleanup costs. The dairy regulatory strategy incorporates the concept of shared responsibility and directs the use of this concept to develop an equitable approach to water quality correction in the Chino Basin.

A comprehensive study of water resources management in the Chino Basin is now being conducted. The study, the Chino Basin Water Resources Management Study, is funded by a task force which includes representatives of the Chino Basin Watermaster (composed of water users in the Chino Basin including the agricultural industry), Chino Basin Municipal Water District, Western Municipal Water District, the Santa Ana Watershed Project Authority, Metropolitan Water District, and the Regional Board. The goal of this study is to identify a water resources management plan which will provide for water quality protection, water demands are met, and the quality of the Santa Ana River is not adversely affected by outflow from the Basin.

Part III. Surface Water Quality Impacts: Control of Drainage in the Chino Agricultural Preserve

The third part of the dairy strategy addresses surface water drainage problems in the Chino Agricultural Preserve, where most of the dairies are located. These problems are caused both by inadequate and poorly maintained drainage facilities within the Preserve, and by inadequate controls on drainage from upstream urban areas.

Runoff from the rapidly developing areas upstream of the dairy area creates additional difficulties for many dairy operators in complying with the manured water containment requirements specified in their waste discharge requirements. A number of studies have been conducted to determine the best method of preventing urban stormwater runoff impacts in the dairy area. The most recent study, "Chino Agricultural Preserve Drainage and Land Use Study"[Ref. 11], was conducted with federal 205(j) planning funds and was completed in 1987. The recommended

solution to these urban drainage problems was the construction of a trapezoidal earth swale at the northern boundary of the dairy area (roughly, at Riverside Avenue, between Campus Avenue and the Cucamonga Creek flood control channel, just west of Archibald Avenue). This swale would intercept flows from upstream urban areas (cities of Ontario and Chino) and convey these flows to the Lower Cucamonga Spreading Grounds, adjacent to the Cucamonga Creek Channel.

To alleviate drainage problems in the dairy area and reduce surface water quality problems which result from dairy waste inputs, the following measures need to be implemented:

1. Riverside Avenue interceptor swale – San Bernardino County and/or the cities of Ontario and Chino should pursue the funding and implementation of the interceptor swale project at Riverside Avenue.
2. Other drainage controls – Both San Bernardino and Riverside counties and the cities tributary to the dairy area should identify and implement a coordinated program of drainage controls necessary to supplement the interceptor swale and prevent drainage problems within the dairy area.

These recommendations are directed to the counties and cities, rather than to the dairy industry. The counties are required to implement such best management practices (BMPs) as part of their NPDES stormwater permits.

Dairy Operations Outside the Chino Basin

Since the greatest concentration of dairies occurs in the Chino Basin, the dairy strategy has appropriately focused on mitigating the problems in this area. However, in recent years, many new dairies have been established elsewhere in the Region, specifically in the San Jacinto Basin, and this trend appears to be continuing. To prevent the recurrence of the groundwater quality problem now confronting the Region in the Chino Basin, an appropriate dairy waste management strategy for the San Jacinto Basin must be developed and implemented. The pattern of dairy land use, the quality of underlying groundwater, and the availability of assimilative capacity in the San Jacinto Groundwater Subbasins should be considered in more detail before recommending a complete dairy strategy. However, it is anticipated that the wastewater management plan, the manure tracking system, and the groundwater monitoring elements of the strategy recommended for the Chino Basin will also apply in the San Jacinto Basin.

Minimum Lot Size Requirements and Exemption Criteria for New Developments Using On-Site Septic Tank-Subsurface Leaching/Percolation Systems

The Santa Ana Region is characterized by dramatic population growth. Most of this population is concentrated in urban areas, where high density development on small lots is typical. Sanitary sewers are not available in many areas where rapid growth is occurring, so many of these high density developments use on-site septic tank-subsurface disposal systems for sewage disposal.

In 1989, the Regional Board investigated the relationship between these high density developments and the nitrate problems found in the groundwater of the Region [Ref. 12]. The findings showed that the use of high density subsurface disposal systems would cause or add to nitrate quality problems. To control these impacts, the Board found that it was necessary to limit the density of new subsurface systems.

On October 13, 1989, the Regional Board adopted Resolution No. 89-157, amending the Water Quality Control Plan to add a one-half acre minimum lot size requirement for new developments using on-site septic tank-subsurface leaching/percolation systems region-wide. Certain exemptions from the minimum lot size requirement were specified in Resolution No. 89-157. On December 7, 1990, the Regional Board adopted Resolution No. 90-158, which revised the exemption criteria. However, on June 7, 1991, the Regional Board adopted Resolution No. 91-51, rescinding Resolution No. 90-158 and revising the exemption criteria in Resolution No. 89-157. On July 16, 1993, the Regional Board adopted Resolution No. 93-40, revising the requirements and exemption criteria in Resolution No. 89-157, as amended by Resolution No. 91-51. Resolution No. 89-157, as amended by Resolution No. 93-40, stipulates the following:

1. A minimum lot size of one-half acre (average gross) per dwelling unit is required for new developments in the Region using on-site septic tank-subsurface leaching/percolation systems.

   A. The term “one-half acre” specified as the minimum lot size requirement means an average gross area of land of one-half acre per dwelling unit. Easements (including streets, curbs, commons, and greenbelts), or those portions thereof which are part of the property proposed for development shall be included in the calculation of the average gross area of land.

   B. A “new” development is defined as a proposed tract, parcel, industrial or commercial development for which:

      1. One or more of the following has not been granted on or prior to September 7, 1989:

         a. Conditional approval or approval of a tentative parcel or tract map by the local agency such as the county/city Planning Commission, City Council or the Board of Supervisors.

         b. A conditional use permit.

         c. Conditional approval or approval by the San Bernardino County Department of Environmental Health Services, Riverside County Department of Health Care Agency or other local agency; or

2. One or more of the conditional approvals or approvals listed under B.1., above, were granted on or prior to September 7, 1989 but had expired prior to September 7, 1989.

C. The minimum lot size requirement does not apply to existing developments where septic tank-subsurface disposal systems have been installed on or prior to September 7, 1989. Replacement of the existing septic tank-subsurface disposal systems shall be exempt from the minimum lot size requirements under the following conditions:

1. For Residential, Commercial and Industrial Developments

   Replacement of the existing septic tank-subsurface disposal systems is necessary to bring the system up to code as required by the local health care agencies and/or the building and safety departments.

2. For Single-Family Residential Only

   Replacement of the existing septic tank-subsurface disposal systems is proposed to allow additional flows resulting from additions to the existing dwelling unit. (This does not include any free-standing additional structures.)

   (Note: Board staff does not consider the number of bedrooms and/or bathrooms for existing or proposed single-family dwelling units in determining compliance with the exemption criteria.)

   a. An existing development on land zoned single-family residential will be considered as a new development if the addition of any free-standing structures which result in additional wastewater flows to the septic system is proposed. Commercial and/or industrial developments will be considered as new development if any additions to the existing structures are proposed which will result in additional wastewater flows to the septic system.

   b. For single-family residential developments, if the existing septic system could accommodate additional wastewater flows, then additional installations (rooms/bathroom) to these developments shall be exempt from the minimum lot size requirements.

D. Those tracts, parcels, industrial or commercial developments which have received one or more of the approvals listed in B.1., above, on or prior to September 7, 1989 are exempt from minimum lot size requirements for use of septic tank-subsurface disposal systems. However, those tracts, parcels, industrial or commercial developments which had received one or more of the approvals listed in B.1., above, but for which the approval had expired prior to

September 7, 1989 are considered as new development and are subject to the minimum lot size requirements.

E. Industrial/commercial developments are developments other than single-family residential developments. For new industrial commercial developments utilizing septic tank-subsurface disposal systems, the wastewater flow for each one-half acre gross area of land may not exceed that from a three-bedroom, two bathroom single-family dwelling unit. For determining compliance with this criterion, a flow rate of 300 gallons per day shall be considered as the flow equivalent to that from a 3-bedroom, 2-bathroom single-family dwelling. For industrial/commercial developments with lots smaller than one-half acre, this flow rate requirement shall be prorated. (For example, an industrial/commercial development on a one-quarter (1/4) acre parcel will be in compliance with this requirement if the wastewater flow does not exceed 150 gallons per day.)

F. This minimum lot size requirement does not affect the lot size criterion for continuing exemptions in prohibition areas (1 acre minimum).

G. This minimum lot size requirement does not preclude the prescription of more stringent lot size requirements in specific areas if it is determined necessary to protect water quality.

H. No exemptions shall be granted for new developments on lots less than one-half acre which are 200 feel or less from a sewer which could serve that tract/parcel, barring legal impediments to such use. All other developments shall be considered on sliding scale, *e.g.,* for each additional unit (any development which is more than a single-family dwelling), this requirement should be increased by 100 feet per dwelling unit. For example, a 10-lot subdivision shall be required to connect to a sewer if the sewer is within 1,100 feet (200 + 9 x 100 feet = 1,100 feet) of the proposed development barring legal impediments to connection to the sewer. For this subsection, a commercial/industrial development which produces a wastewater flow of up to 300 gallons per day would be considered equivalent to a single-family dwelling unit.

I. New lots of less than one-half acre may be formed by combining two or more lots which have received one of the approvals specified in Section B.1., above on or prior to September 7, 1989. Individually, these existing lots would be eligible for an exemption from the minimum lot size requirement. Developments on the combined lots may also be granted an exemption provided that the total number of units proposed for the new parcel is equal to or less than the total number of units proposed for the existing parcel. For the purposes of this subsection, a combined lot of less than one-half acre formed from two or more existing lots shall not be considered a new development.

J. Exemptions from the minimum lot size requirements for the use of septic tank-subsurface disposal systems on lots smaller than one-half acre may be granted if the following conditions are met:

   1. The project proponent implements an acceptable offset program. Under an offset program, the project proponent can proceed with development using septic systems on lots smaller than one-half acre if the proponent connects an equivalent number of septic systems to the sewer. The unsewered developments must be those which would not otherwise be required to connect to the sewer.

   2. If the septic systems (developments) proposed are not identical to the ones connected to the sewer (the offset), an engineering report shall be submitted certifying that the nitrogen loading rate from the proposed development(s) is(are) equivalent to or less than the nitrogen loading rate from the septic systems in the offset program.

   3. The proposed use of septic tank-subsurface disposal systems complies with the Regional Board's "Guidelines for Sewage Disposal from Land Developments,"

K. The project proponent may propose an alternative treatment system for sewage disposal as the basis for an exemption from the minimum lot size requirement. Each request for use of an alternative treatment system shall be reviewed on a case-by-case basis and submitted to the Regional Board for consideration.

Newport Bay Watershed

Water quality problems in Newport Bay were described in detail in reports prepared in response to Senate Concurrent Resolutions 38 and 88 [Ref. 16, 17]. These problems are essentially nonpoint source problems and fall into four major categories: 1) TMDL for sediment; 2) bacterial contamination; 3) eutrophication and 4) toxic substances contamination. Each of these problems have been or is being addressed by either local or state agencies. A brief description follows:

1.a Phase 1 of the TMDL for Sediment (Amended by Resolution 98-101)

The Total Maximum Daily Load for sediment in the Newport Bay/San Diego Creek Watershed includes the following quantifiable targets and Load Allocations that shall be implemented by the Cities (Irvine, Tustin, Lake Forest, Costa Mesa, Santa Ana and Newport Beach) and County responsible for the sediment discharged into stormwater and flood control conveyances under their control which discharge into San Diego Creek and/or Newport Bay.

1. Sediment control measures shall be implemented and maintained to ensure that sediment discharges into Newport Bay will not significantly change the existing acreages of aquatic, wildlife, and rare and endangered species habitat, and to maintain the navigational and non-contact recreational beneficial uses of the bay. The existing aquatic and wildlife habitat of the Upper Bay, which is comprised of approximately 210 acres of marine aquatic habitat, 214 acres of mudflat habitat, 277 acres of salt marsh, and 31 acres of riparian habitat within, and adjacent to**,** the 700 acre Upper Newport Bay Ecological Reserve and the existing navigational and recreational uses of Newport Bay, will be used by the Regional Board as a performance standard of the effectiveness of the sediment TMDL. If these acreages are changed by more than 1% as the result of sediment deposition, if the in-bay sediment basins or the in-channel sediment basins are not maintained, or if there are impacts to navigational and recreational uses, this will indicate that the local sediment control measures are not adequate to protect the beneficial uses provided by these areas, and the Board will reevaluate the sediment TMDL for Newport Bay and San Diego Creek. Since the intent of the sediment TMDL is to protect these beneficial uses, this quantifiable target will be used as the primary measurement of the success of the TMDL. In order to maintain the marine aquatic habitat of the Unit 1 and 2 Sediment Basins in Upper Newport Bay, a minimum depth of 7 feet below mean sea level shall be maintained**.** The Cities and County, acting through cooperative agreements under the Newport Bay Watershed Executive Committee, shall conduct bathymetric and vegetation surveys of Newport Bay no less than once every three years or as agreed upon by the Executive Officer. This information will be used to evaluate compliance with the acreage and depth targets. If these acreages are changed by more than 1% as the result of sediment deposition, if the minimum depth is not maintained**,** and if the 50% target sediment reduction described below is not achieved, the Regional Board may consider appropriate enforcement action.

2. It is recognized that the Department of Fish and Game, which is responsible for the management of the Reserve, may wish to modify the habitat composition and acreages of the Reserve to address wildlife needs. The habitat acreages identified above will be revised accordingly through the Basin Plan Amendment process.

3. The second quantifiable target is to reduce the annual average sediment load in the watershed from a total of approximately 250,000 tons per year to 125,000 tons per year, thereby reducing the sediment load to Newport Bay to approximately 62,500 tons per year and limiting sediment deposition in the drainages to approximately 62,500 tons per year. Sediment control measures shall be implemented and maintained to result in a 50% reduction in the current load of sediment in the Newport Bay/San Diego Creek Watershed within 10 years. The Regional Board will determine compliance with this target by calculating the annual average amount of suspended solids measured in San Diego Creek at Jamboree Boulevard and Campus Drive over a ten year period, and by evaluating the scour studies of the creek channels and topographic surveys of all the sediment control basins in the watershed to estimate the amount of deposition. Given that annual sediment deposition can vary widely based on weather and other conditions, it is appropriate to evaluate compliance with

the sediment reduction target as a 10 year running annual average of the suspended solids load measured in San Diego Creek at Jamboree Boulevard and Campus Drive. The Regional Board will compare this information to the bathymetric and scour studies information to determine if the monitoring data accurately reflects sediment deposition in the bay and creek channels and to determine compliance with this target.

4. Sediment control measures shall be implemented and maintained to comply with the following Load Allocations (implemented as 10-year running annual averages) for discharges of sediment to Newport Bay: 1) no more than 28,000 tons per year of sediment shall be discharged to Newport Bay from open space areas within the watershed, 2) no more than 19,000 tons per year shall be from agricultural land, 3) no more than 13,000 tons per year from construction sites, 4) no more than 2,500 tons per year discharged from urban areas. The Cities and County, acting through cooperative agreements under the Newport Bay Watershed Executive Committee, shall be required to provide a proposal for evaluating compliance with these individual land use type load allocations that is subject to the approval of the Executive Officer. This proposal shall be implemented upon approval of the Executive Officer.

5. Sediment control measures shall be implemented and maintained to comply with the following Load Allocations (implemented as 10-year running annual averages) in addition to the load allocations specified above for Newport Bay for discharges of sediment to tributaries of Newport Bay: 1) no more than 28,000 tons per year of sediment shall be discharged to San Diego Creek and its tributaries from open space areas within the watershed, 2) no more than 19,000 tons per year shall be discharged to San Diego Creek and its tributaries from agricultural land, 3) no more than 13,000 tons per year discharged to San Diego Creek and its tributaries from construction sites, 4) no more than 2,500 tons per year discharged to San Diego Creek and its tributaries from urban areas. The Cities and County, acting through cooperative agreements under the Newport Bay Watershed Executive Committee, shall be required to provide a proposal for evaluating compliance with these individual land use type load allocations that is subject to the approval of the Executive Officer. This proposal shall be implemented upon approval of the Executive Officer.

6. Sediment control measures shall be implemented such that Upper Newport Bay, including In-Bay Sediment Basins 1 and 2, need not be dredged more frequently than about once every 10 years, and the long term goal of Phase 1 of the TMDL for sediment is to reduce the frequency of dredging to once every 20 to 30 years. It is recognized that extreme rainfall conditions may necessitate more frequent dredging of the in-bay basins. The Regional Board will adopt waste discharge requirements for such dredging projects as the means of recommending Clean Water Act Section 401 Water Quality Certification for the dredging, and to ensure proper disposal of the dredged sediment.

7. Waste Discharge Requirements will be waived for maintenance dredging of flood control channels and drainages throughout the watershed in order to maintain flood control capacity, under the following conditions; 1) any vegetation removal or earthwork conducted between March 1 and September 1 shall be supervised by a

qualified biologist, approved by the Department of Fish and Game, to ensure compliance with the Endangered Species Act and Migratory Bird Treaty Act (this monitor shall have the authority to the stop or divert work to avoid impacts as necessary); and 2) the information in a complete application (report of waste discharge) demonstrates that the waiver criteria specified herein and in Regional Board Resolution No. 96-9, Waiver of Waste Discharge Requirements for Certain Types of Discharges, are met.

8. All in-channel and foothill sediment control basins throughout the drainages in the watershed shall be maintained to have at least 50% of design capacity available prior to November 15 of each year. Waste Discharge Requirements will be waived for sediment control basin maintenance activities under the following conditions: 1) any vegetation removal or earthwork conducted between March 1 and September 1 shall be supervised by a qualified biologist, approved by the Department of Fish and Game, to ensure compliance with the Endangered Species Act and Migratory Bird Treaty Act (this monitor shall have the authority to the stop or divert work to avoid impacts as necessary); 2) the use of herbicides for the control of vegetation within channels shall be avoided to the greatest extent practicable; and 3) the information in a complete application (report of waste discharge) demonstrates that the waiver criteria specified herein and in Regional Board Resolution No. 96-9, Waiver of Waste Discharge Requirements for Certain Types of Discharges, are met.

9. Waste Discharge Requirements will be waived for drainage channelization and stabilization projects on drainages within the watershed between the foothill sediment basins and Upper Newport Bay, under the following conditions: 1) while modifying the channels, no native riparian wetland vegetation shall be removed from within the basins or adjacent to the basins during the period between April 1 and September 1 of each year, in order to protect the federally listed least Bell's vireo, unless one to one mitigation is provided for the loss of the riparian and aquatic habitat; 2) any vegetation removal or earthwork conducted between March 1 and September 1 shall be supervised by a qualified biologist, approved by the Department of Fish and Game, to ensure compliance with the Endangered Species Act and Migratory Bird Treaty Acts (this monitor shall have the authority to stop or divert work to avoid impacts as necessary); and 3) the information in a complete application (report of waste discharge) demonstrates that the waiver criteria specified herein and in Regional Board Resolution No. 96-9, Waiver of Waste Discharge Requirements for Certain Types of Discharges, are met. The Regional Board will continue to work with the U.S. Army Corps of Engineers and other appropriate agencies towards the adoption of a Special Area Management Plan (or comparable plan) and General Permit for channel stabilization and flood control projects in accordance with Section 404 and 401 of the Clean Water Act. If a plan for completing the Special Area Management Plan by June 1, 1999 is not submitted to the Executive Officer by January 1, 1999, then the Executive Officer is directed to require, as an additional condition for obtaining a waiver, the completion of a comprehensive delineation of all the wetlands in the watershed and an evaluation of the cumulative impacts of projects to control sediment and the build-out of the watershed on the beneficial uses of these waters

of the State. This evaluation of the cumulative impacts must be completed, according to a plan acceptable to the Executive Officer, by June 1, 1999. Staff intends to use the delineation to propose a general permit to the Regional Board that will cover the kind of activities described in the amendment. Until the SAMP, or, alternatively, the comprehensive delineation described above, is completed, staff will continue to process individual permit applications for each project.

10. The Cities and County, acting through cooperative agreements under the Newport Bay Watershed Executive Committee, shall evaluate: 1) the amount of sediment being discharged from areas that contribute sediment to the total load discharged to Newport Bay; and 2) the effectiveness of the local sediment control plan (the 208 Plan). Where areas that contribute sediment are not under the jurisdiction of entities that are currently part of the Newport Bay Watershed Executive Committee, the Cities and County shall recommend to the Regional Board, if necessary, a new formula for allocating sediment loads and sharing of the costs of implementing the sediment control measures that will provide a 50% reduction in the current load of sediment. This evaluation shall, at a minimum, address the sediment loads from the Santa Ana-Delhi Channel, Bonita Creek, the federal lands within the watershed, and the City of Lake Forest.

These conditions shall not supersede more restrictive conditions of other agencies, such as the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, the State Department of Fish and Game, or other local agencies.

1.b Phase 2 of the TMDL for Sediment: Monitoring and Reassessment

The Newport Bay Watershed Executive Committee has developed an agreement whereby the County of Orange conducts the monitoring of sediment discharge within the watershed, with the costs shared by all parties, except the Department of Fish and Game. There has been no site specific monitoring of the various sources of sediment, so it is impossible to determine the effectiveness of specific BMPs. It is also too soon to reach any conclusions about the overall effectiveness of the local sediment control measures.

Since 1983, the County has monitored flow and total suspended solids at three locations and conducts periodic scour studies to evaluate sediment transport and deposition in the drainages within the watershed. In addition, the County has conducted two topographic surveys of the Upper Bay to determine sediment accumulation in the Upper Bay. The County intends to continue this monitoring program on behalf of the Newport Bay Watershed Executive Committee.

In addition, the Newport Bay Watershed Executive Committee shall:

1. Propose monitoring stations and schedules to be established to monitor the discharge of sediment from the Santa Ana-Delhi Channel and Bonita Canyon Creek into the Upper Bay and to evaluate the effectiveness of the BMPs being implemented in the watershed. This monitoring plan shall also propose monitoring to evaluate compliance with the Load Allocations for various land use types. This

monitoring plan will not become effective until approved by the Regional Board at a duly noticed public hearing as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.).

2. Propose monitoring stations and schedules to conduct the scour studies for the drainages in the watershed to be conducted annually. These surveys shall determine the amount of sediment accumulated in San Diego Creek and its tributaries, the in-channel sediment basins, the foothill sediment basins, and any other sediment basins in the watershed. The survey report shall be used to demonstrate whether the sediment basins have at least 50% capacity prior to November 15 of each year. This monitoring plan will not become effective until approved by the Regional Board at a duly noticed public hearing as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.).

3. Conduct topographic and vegetation surveys of Upper Newport Bay at least every three years, or as agreed upon by the Executive Officer, and after any year in which the monitoring for total suspended solids at Campus Drive shows that more than 250,000 tons of sediment were discharged to the Bay. In any year in which these surveys are required, the surveys shall be conducted by July 1. The results of these surveys shall be submitted as part of an annual report by December 31 of each year. The topographic and vegetation surveys shall be conducted to determine the amount of sediment deposition in the two In-Bay basins and the other marine aquatic habitat areas and to determine changes in the areal extent of the existing aquatic, wildlife and endangered species habitat areas.

4. Submit an annual report by December 31 of each year providing the monitoring data and information collected by the Newport Bay Watershed Executive Committee, including the flow and suspended solids monitoring data, the scour studies, the bathymetric and vegetation surveys, (and any additional information collected by the Committee). The monitoring shall be completed prior to July 1 of each year and this information shall be used to determine the maintenance requirements of all sediment basins in the watershed. Additionally, the Newport Bay Watershed Executive Committee shall submit a report by November 15 of each year certifying whether the sediment basins in the watershed have at least 50% capacity. The Regional Board will use the information collected by this monitoring program to evaluate the effectiveness of the sediment TMDL and will reevaluate the sediment TMDL as part of the Regional Board's Basin Planning process.

5. The monitoring data and information collected by the Newport Bay Watershed Executive Committee, including the flow and suspended solids monitoring data, the scour studies, the bathymetric surveys and the vegetation surveys, (and any additional information collected by the Newport Bay Watershed Executive Committee) shall be submitted in an annual report by December 31 of each year. The monitoring shall be completed prior to July 1 of each year and this

information shall be used to determine the maintenance requirements of all sediment basins in the watershed. Additionally, the Newport Bay Watershed Executive Committee shall submit a report by November 15 of each year certifying whether the sediment basins in the watershed have at least 50% capacity. The Regional Board will use the information collected by this monitoring program to evaluate the effectiveness of the sediment TMDL and will reevaluate the sediment TMDL as part of the Board's Basin Planning process. (End of Amendment Resolution No. 98-101)

2. Bacterial Contamination

Bacterial contamination of the waters of Newport Bay can directly affect two designated beneficial uses: water-contact recreation (**REC-1**) and shellfish harvesting (**SHEL**). The Orange County Health Care Agency (OCHCA) conducts routine bacteriological monitoring and more detailed sanitary surveys as necessary, and is responsible for closure of areas to recreational and shellfish harvesting uses if warranted by the results.

Because of consistently high levels of total coliform bacteria, the upper portion of Upper Newport Bay (Upper Bay) has been closed to these uses since 1974. In 1978, the shellfish harvesting prohibition area was expanded to include all of the Upper Bay, and the OCHCA generally advises against the consumption of shellfish harvested anywhere in the Bay. Bacterial objectives established to protect shellfish harvesting activities are rarely met in the Bay. (Fecal coliform objectives for the protection of shellfish harvesting and water-contact recreation are shown in Chapter 4, “Enclosed Bays and Estuaries”. The OCHCA has relied on total coliform standards specified in the California Health and Safety Code. Fecal coliform are a subset of total coliform.). Certain areas in the lower parts of the Upper Bay and in Lower Newport Bay (Lower Bay) are also closed to water-contact recreation on a temporary basis, generally in response to storms. In these areas, there is generally good compliance with water-contact recreation bacterial objectives in the summer.

Data collected by the OCHCA demonstrate that tributary inflows, composed of urban and agricultural runoff, including stormwater, are the principal sources of coliform input to the Bay. As expected, there are more violations of bacterial standards in the Bay during wet weather, when tributary flows are higher, than in dry weather. There are few data on the exact sources of the coliform in this runoff. Coliform has diverse origins, including: manure fertilizers which may be applied to agricultural crops and to commercial and residential landscaping; the fecal wastes of humans, household pets and wildlife; and other sources. Special investigations by OCHCA have demonstrated that food wastes are a significant source of coliform. Many restaurants wash down equipment and floor mats into storm drains tributary to the Bay and may improperly dispose of food waste such that it eventually washes into the Bay. Such discharges likely contribute to the chronic bacterial quality problems in certain parts of the Bay.

Another source of bacterial input to the Bay is the discharge of vessel sanitary wastes. Newport Bay has been designated a no-discharge harbor for vessel sanitary wastes since 1976. Despite this prohibition, discharges of these wastes have continued to

occur. Since these wastes are of human origin, they pose a potentially significant public health threat.

The Regional Board, the City of Newport Beach (City), the County of Orange, the City of Newport Beach Harbor Quality Committee, and other parties have taken or stimulated actions to enforce the vessel waste discharge prohibition. The principal focus of these efforts has been to make compliance with the prohibition convenient and therefore more likely. Vessel waste pumpouts have been installed at key locations around the Bay and are inspected routinely by the OCHCA. A City ordinance addresses people-intensive boating activities to ensure proper disposal of sanitary wastes. The ordinance requires that sailing clubs, harbor tour, and boat charter operations install pumpouts for their vessels. Another City ordinance addresses vessel waste disposal by persons living on their boats. Efforts have also been made to ensure that there are adequate public rest rooms onshore. The City also sponsors an extensive public education campaign designed to advise both residents and visitors of the discharge prohibition, the significance of violations, and of the location of pumpouts and rest room facilities. The effectiveness of these extensive vessel waste control efforts is not known.

As noted, the fecal waste of wildlife, including waterfowl that inhabit the Bay and its environs, is a source of coliform input. The fecal coliform from these natural sources may contribute to the violations of water quality objectives and the loss of beneficial uses, but it is currently unknown to what extent these natural sources contribute to, or cause, the violations of bacterial quality objectives in Newport Bay.

Reports prepared by Regional Board staff describe the bacterial quality problems in the Bay in greater detail and discuss the technical basis for the fecal coliform TMDL that follows (21, 22). Implementation of this TMDL is expected to address these bacterial quality problems and to assure attainment of water quality standards, that is, compliance with water quality objectives and protection of beneficial uses.

3.a. Fecal Coliform TMDL (Amended by Resolution No. 99-10)

A prioritized, phased approach to the control of bacterial quality in the Bay is specified in this TMDL. This approach is appropriate, given the complexity of the problem, the paucity of relevant data on bacterial sources and fate, the expected difficulties in identifying and implementing appropriate control measures, and uncertainty regarding the nature and attainability of the SHEL use in the Bay. The phased approach is intended to allow for additional monitoring and assessment to address areas of uncertainty and for future revision and refinement of the TMDL as warranted by these studies.

Table 5-9f summarizes the TMDL, Waste Load Allocations (WLAs) for point sources of fecal coliform inputs and Load Allocations (LAs) for nonpoint source inputs. As shown, the TMDL, WLAs and LAs are established to assure compliance with water contact recreation standards no later than December 30, 2014 and with shellfish standards no later than December 30, 2019. WLAs are specified for vessel waste and urban runoff, including stormwater, the quality of which is regulated under a County-wide NPDES

permit issued by the Regional Board. This runoff is thus regulated as a point source, even though it is diffuse in origin. LAs are specified for fecal coliform inputs from agricultural runoff, including stormwater, and natural sources. The TMDL is to be adjusted, as appropriate, based upon completion of the studies contained in Table 5-9g. Upon completion of these studies, an updated TMDL report will be prepared summarizing the results of the studies and making recommendations regarding implementation of the TMDL. The results of the studies may lead to recommendations for changes to the TMDL specified in Table 5-9f to assure compliance with existing Basin Plan standards (objectives and beneficial uses). The study results may also lead to recommendations for changes to the Basin Plan objectives and/or beneficial uses. If such standards changes are approved through the Basin Plan amendment process, then appropriate changes to the TMDL would be required to assure attainment of the revised standards. Revision of the TMDL, if appropriate, would also be considered through the Basin Plan amendment process.

Upon completion and consideration of the studies and any appropriate Basin Plan amendments, a plan for compliance with the TMDL specified in Table 5-9f, or with an approved amended TMDL, will be established. It is expected that this plan will specify a phased compliance approach, based on consideration of such factors as geographic location, the priority assigned by the Regional Board to specific locations for control actions (see Section 3.a.ii, “Beneficial Use Assessment”), season, etc. Interim WLAs, LAs and compliance dates that lead to ultimate compliance with the TMDL will be established.

The TMDL and its allocations contain a significant margin of safety. The margin of safety can be either incorporated implicitly through analytical approaches and assumptions used to develop the TMDL or added explicitly as a separate component of the TMDL. A substantial margin of safety is implicitly incorporated in the TMDL in the fact that the TMDL does not apply criteria for dilution, natural die-off, and tidal flushing. The TMDL, WLAs, and LAs are established at concentrations equivalent to the water quality objectives.

Table 5-9f: Total Maximum Daily Load, Waste Load Allocations, and Load Allocations for Fecal Coliform in Newport Bay

Total Maximum Daily Load for Fecal Coliform In Newport Bay	Waste Load Allocations for Fecal Coliform in Urban Runoff, including stormwater, Discharges to Newport Bay	Load Allocations for Fecal Coliform in Agricultural Runoff, including stormwater, Discharges to Newport Bay	Load Allocations for Fecal Coliform from Natural Sources in all Discharges to Newport Bay	Waste Load Allocations for Vessel Waste
As soon as possible but no later than (14 years after State TMDL Approval)*			**In Effect**	**In Effect**
5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	5-Sample/30-days Geometric Mean less than 200 organisms/ 100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	0 MPN/100 mL No discharge.
As soon as possible but no later than (20 years after State TMDL Approval)*				**In Effect**
Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	0 MPN/100 mL No discharge.

Table 5-9g: Fecal Coliform Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As soon As Possible but No Later Than
Task 1	Routine Monitoring Program (Section 3.a.ii.a) a) Submit Proposed Routine Monitoring Plan(s)[1] b) Implement Routine Monitoring Plan(s) c) Submit Monthly and Annual Reports (Reporting Period: April 1-March 31)	 a) (Within 30 days)[2] b) Upon Regional Board Approval of Plan(s) c) Monthly within 30 days, Annual Report by September 1
Task 2	Water Quality Model for Bacterial Indicators (Section 3.a.ii.b) a) Submit Proposed Model Development Plan b) Submit Calibrated Model and Model Documentation	 a) (Within 30 days) [2] b) 13 months after Regional Board approval of plan(s)
Task 3	Beneficial Use Assessment Plan (Section 3.a.ii.c) Submit Proposed Assessment Plan for: a) REC-1 b) SHEL	 a) (Within 30 days) [2] b) (Within 13 months) [2]
Task 4	Beneficial Use Assessment Report (3.a.ii.c) Submit Beneficial Use Assessment Report for: a) REC-1 b) SHEL	 a) 13 months after Regional Board approval of plan(s) b) 13 months after Regional Board approval of plan(s)
Task 5	Source Identification and Characterization Plan(s) (Section 3.a.ii.d) Submit Proposed Source Identification Plans for: a) The Dunes Resort b) Urban Runoff (including stormwater) c) Agriculture (including stormwater) d) Natural Sources	 a) (Within 60 days) [2] b) (Within 60 days) [2] c) (Within 3 months) [2] d) (Within 3 months) [2]

Table 5-9g: Fecal Coliform Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As Soon As Possible but No Later Than
Task 6	Source Identification and Characterization Reports (Section 3.a.ii.d) Submit Source Identification and Characterization Reports for: a) The Dunes Resort b) Urban Runoff (including stormwater) c) Agriculture (including stormwater) d) Natural Sources	 a) 7 months after Regional Board approval of plan(s) b) 13 months after Regional Board approval of plan(s) c) 16 months after Regional Board approval of plan(s) d) 16 months after Regional Board approval of plan(s)
Task 7	Evaluation of Vessel Waste Program (Section 3.a.ii.e) a) Submit Proposed Plan for Evaluating the Current Vessel Waste Program b) Submit Report on the Evaluation of the Vessel Waste Program	 a) (Within 3 months) [2] b) 12 months after Regional Board approval of plan
Task 8	TMDL, WLA, and LA Evaluation and Source Monitoring Program (Section 3.a.ii.f) a) Submit Proposed Evaluation and Source Monitoring Program Plan(s) b) Implement Evaluation and Source Monitoring Plan(s) c) Submit Monthly and Annual Reports (Reporting Period: April 1-March 31)	 a) 3 months after completion of Tasks 2, 4a, and 6 b) Upon Regional Board approval of plan(s) c) Monthly within 30 days, Annual Report by September 1
Task 9	Updated TMDL Report Submit updated TMDL report for: a) REC-1 b) SHEL	 a) 6 months after completion of Tasks 2, 4a, 6, and 7 b) 6 months after completion of Tasks 2, 4b, 6, and 7

Table 5-9g: Fecal Coliform Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As Soon As Possible but No Later Than
Task 10	Adjust TMDL, if necessary; adopt interim WLAs, LAs, and Compliance Dates (Section 3.a.ii.h) a) REC-1 b) SHEL	 a) 12 months after completion of Updated TMDL Report for REC-1 (Task 9.a) b) 12 months after completion of Updated TMDL Report for SHEL (Task 9.b)
[1]Note: Provided that the monitoring program plan(s) fulfills the minimum requirements specified in this TMDL, approval of the TMDL shall constitute Regional Board approval of the monitoring program plan(s).		
[2]Note: Within specified time periods of State TMDL approval (i.e., approval by the Regional Board, the State Water Resources Control Board, and the Office of Administrative Law). Upon State TMDL approval, this parenthetical "formula" will be replaced by the date certain, based upon the date of approval.		

3.a.i. TMDL Implementation

As soon as possible but no later than the dates specified in Table 5-9g, the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach and agricultural operators in the Newport Bay watershed shall submit the plans and schedules shown in Table 5-9g and described in Section 3.a.ii. Subsequent phases of TMDL implementation shall take into account the results of the monitoring and assessment efforts required by the initial study phase of the TMDL implementation plan and other relevant studies.

The following sections describe the requirements for the submittal of plans by dischargers in the Newport Bay watershed to complete specific monitoring, investigations and analyses. In each and every case, the plans submitted by the named dischargers will be considered for approval by the Regional Board at a duly noticed public hearing as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.). The plans are to be implemented upon Regional Board approval and completed as specified in Table 5-9g.

3.a.ii. Monitoring and Assessment

Routine monitoring and special investigations and analyses are an important part of this phased TMDL. Routine monitoring is necessary to assess compliance with the bacterial quality objectives in the Bay and with the WLAs and LAs specified in the TMDL. Special investigations and analyses are needed to identify and characterize sources of fecal coliform input and to determine their fate in the Bay so that appropriate control measures can be developed and implemented. The effectiveness of current and future bacterial control measures needs to be evaluated. The results of these studies may warrant future changes to this TMDL.

3.a.ii.a. Routine Monitoring

By January 30, 2000, the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed shall propose a plan for routine monitoring to determine compliance with the bacterial quality objectives in the Bay.

At a minimum, the proposed plan shall include the collection of five (5) samples/30-days at the stations specified in Table 5-9h and shown in Figure 5-1 and analysis of the samples for total and fecal coliform and enterococci. Reports of the collected data shall be submitted monthly. An annual report summarizing the data collected for the year and evaluating compliance with the water quality objectives shall be submitted by September 1 of each year.

In lieu of this coordinated, regional monitoring plan, one or more of the parties identified in the preceding paragraph may submit an individual or group plan to conduct routine monitoring in areas solely within their jurisdiction to determine compliance with the bacterial objectives in the Bay (if appropriate). Any such individual or group plans shall also be submitted by January 30, 2000. Reports of the data collected pursuant to approved individual/group plan(s) shall be submitted monthly and an annual report summarizing the data and evaluating compliance with water quality objectives shall be submitted by September 1 of each year.

The monitoring plan(s) shall be implemented upon Regional Board approval.

Table 5-9h

Newport Bay Sampling Stations for Routine Compliance Monitoring with Bacterial Quality Objectives (see Figure 1 for Station Locations)

Ski Zone	33rd Street	Park Avenue
Vaughns Launch	Rhine Channel	Via Genoa
Northstar Beach	De Anza	Alvarado/Bay Is.
Abalone Avenue	Promontory Pt.	10th Street
Dunes East	Bayshore Beach	15th Street
Dunes Middle	Onyx Avenue	19th Street
Dunes West	Garnet Avenue	Lido Island Yacht Club
Dunes North	Ruby Avenue	Harbor Patrol
43rd Street	Sapphire Avenue	N Street Beach
38th Street	Newport Blvd. Bridge	Rocky Point
San Diego Creek @ Campus Dr.	Santa Ana Delhi Channel	Big Canyon Wash
Backbay Dr. Drain		

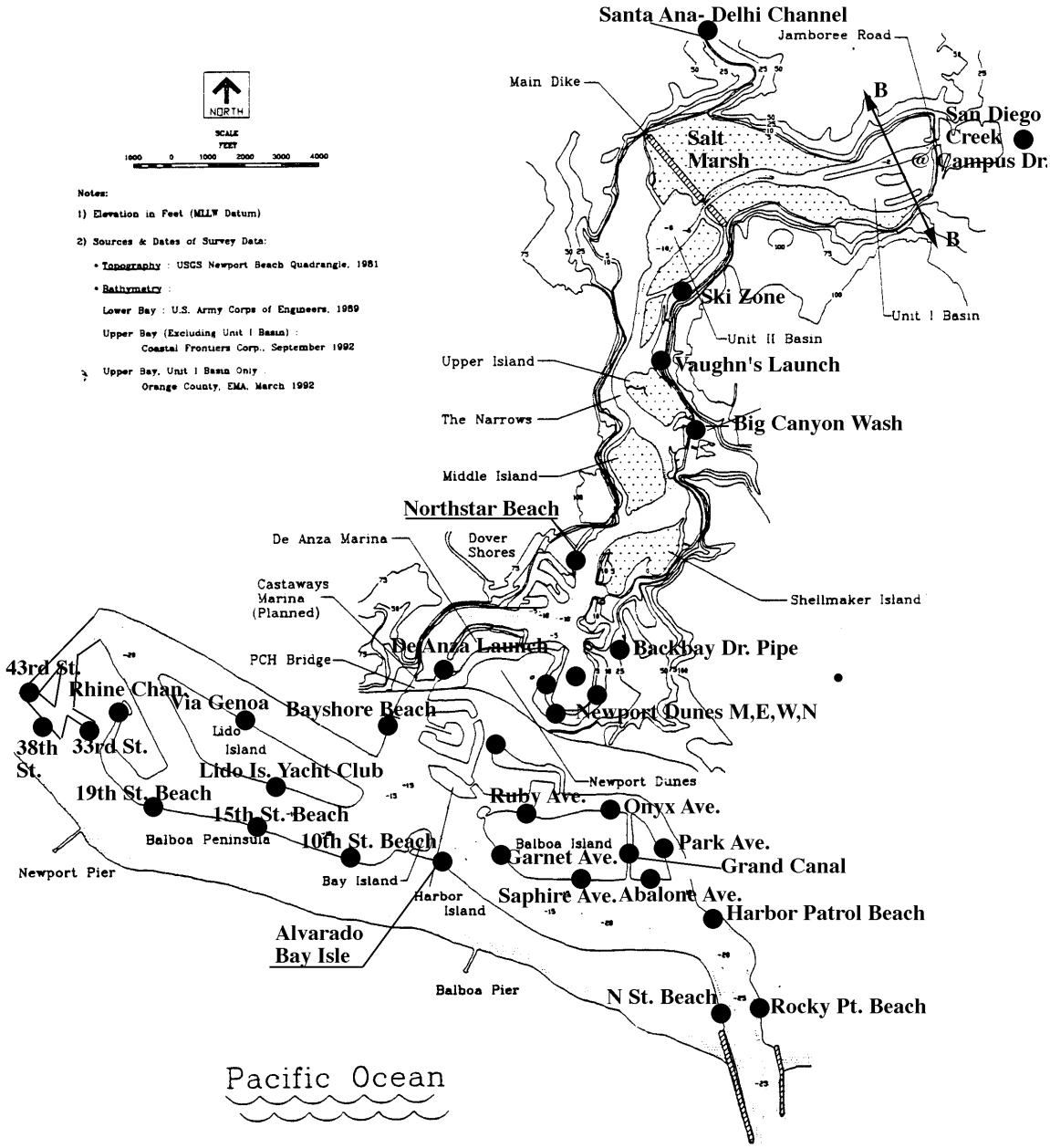


Figure 5-1: Newport Bay Bacterial Quality Monitoring Stations

3.a.ii.b. Fate of Bacterial Inputs

By January 30, 2000, the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest, and Newport Beach and the agricultural operators in the Newport Bay watershed shall submit a plan for the development and submittal of a water quality model to be completed by 13 months after Regional Board approval of the plan. The model shall be capable of analysis of fecal coliform inputs to Newport Bay, the fate of those inputs, and the effect of those inputs on compliance with bacterial quality objectives in the Bay.

3.a.ii.c. Beneficial Use Assessment

By January 30, 2000, the County of Orange , the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach shall submit a plan to complete, by 13 months after Regional Board approval of the plan, a beneficial use assessment to identify and quantify water contact recreation activities in Newport Bay. By 13 months after Regional Board approval of the beneficial use assessment plan, these parties shall submit a report of the results of the water contact recreation beneficial use assessment.

By March 1, 2001, the County of Orange , the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach shall submit a plan to complete, by 13 months after Regional Board approval of the plan, a beneficial use assessment to identify and quantify shellfish harvesting activities in Newport Bay. By 13 months after Regional Board approval of the beneficial use assessment plan, these parties shall submit a report of the results of the shellfish harvesting beneficial use assessment.

The beneficial use assessment reports shall contain recommendations for prioritizing areas within Newport Bay for purposes of evaluation and implementation of cost-effective and reasonable control actions as part of the TMDL process. The Regional Board will consider these recommendations and make its determinations regarding high priority water contact recreation and shellfish harvesting areas at a duly noticed public hearing. These determinations will be considered in establishing interim WLAs and LAs and compliance dates (Task 10, Table 5-9g).

3.a.ii.d. Source Identification and Characterization

By March 1, 2000 the County of Orange and the City of Newport Beach shall submit a proposed plan for a program, to be completed within 7 months after Regional Board approval of the plan to identify and characterize fecal coliform inputs to The Dunes Resort. In lieu of this coordinated plan, each of these parties may submit an individual plan to identify and characterize fecal coliform inputs to The Dunes Resort. Any such individual plan shall also be submitted by March 1, 2000 and completed within 7 months after Regional Board approval of the plan(s).

By (60 days after State TMDL approval),* the County of Orange and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest, and Newport Beach shall submit a proposed plan for a program, to be completed within 13 months after Regional Board approval of the plan to identify and characterize fecal coliform inputs to Newport Bay from urban runoff, including stormwater. In lieu of this coordinated, regional plan, one or more of these parties may submit an individual or group plan to identify and characterize fecal coliform inputs to the Bay from urban runoff from areas within its jurisdiction. Any such individual or group plan shall also be submitted by (60 days after State TMDL approval)* and completed within 13 months after Regional Board approval of the plan(s).

By April 1, 2000, the agricultural operators in the Newport Bay watershed shall submit a proposed plan for a program, to be completed within 16 months after Regional Board approval of the plan, to identify and characterize fecal coliform inputs to Newport Bay from agricultural runoff, including stormwater. In lieu of this coordinated plan, one or more of the agricultural operators may submit an individual or group plan to identify and characterize fecal coliform inputs to the Bay from agricultural runoff from areas within their jurisdiction. Any such individual or group plan shall also be submitted by April 1, 2000, and completed within 16 months after Regional Board approval of the plan(s).

By April 1, 2000, the County of Orange and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest, and Newport Beach shall submit a proposed plan for a program, to be completed within 16 months after Regional Board approval of the plan, to identify and characterize fecal coliform inputs to Newport Bay from natural sources. In lieu of this coordinated, regional plan, one or more of these parties may submit an individual or group plan to identify and characterize fecal coliform inputs to the Bay from natural sources from areas within its jurisdiction. Any such individual or group plan shall also be submitted by April 1, 2000 and completed within 16 months after Regional Board approval of the plan(s).

3.a.ii.e. Evaluation of Vessel Waste Control Program

By April 1, 2000 the County of Orange and the City of Newport Beach shall submit a plan to complete, by one year after Regional Board approval of the plan, an assessment of the effectiveness of the vessel waste control program implemented by those

agencies in Newport Bay. The plan shall be implemented upon approval by the Regional Board. A report of the study results shall be submitted, together with recommendations for changes to the vessel waste program necessary to ensure compliance with this TMDL.

The Regional Board will consider appropriate changes to the vessel waste control program. These changes shall be implemented in accordance with a schedule to be established by the Regional Board.

3.a.ii.f. TMDL, WLA and LA Evaluation and Source Monitoring Program

By (3 months after completion of Tasks 2, 4a, and 6 as shown in Table 5-9g)* the County of Orange, the Cities of Tustin, Irvine, Costa Mesa Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed shall propose a plan for evaluation and source monitoring to determine compliance with the WLAs and LAs specified in Table 5-9f. In lieu of this coordinated, regional plan, one or more of these parties may submit an individual or group plan to conduct TMDL, WLA, LA and Source Evaluation monitoring from areas solely within their jurisdiction. Any such individual or group plan shall also be submitted by (3 months after completion of Tasks 2, 4a, and 6 as shown in Table 5-9g).* Reports of the data collected pursuant to approved individual/group plan(s) shall be submitted monthly and an annual report summarizing the data and evaluating compliance with WLAs and LAs shall be submitted by September 1 of each year. The annual report shall also include an evaluation of the effectiveness of control measures implemented to control sources of fecal coliform, and recommendations for any changes to the control measures needed to ensure compliance with the TMDL, WLAs, and LAs.
The evaluation and source monitoring plan(s) shall be implemented upon Regional Board approval.

3.a.ii.g. Updated TMDL Report

The County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed shall submit Updated TMDL Reports as specified in Table 5-9g. These updated TMDL reports shall, at a minimum, integrate and evaluate the results of the studies required in Table 5-9g (Task 1 – 7). The reports shall include recommendations for revisions to the TMDL, if appropriate and for interim WLAs, LAs and compliance schedules

3.a.ii.h. Adjust TMDL; Adopt Interim WLA, LAs and Compliance Dates

Based on the results of the studies required by Table 5-9g and recommendations made in the Updated TMDL Reports, changes to the TMDL for fecal coliform may be warranted. Such changes would be considered through the Basin Plan Amendment process. Upon completion and consideration of the studies and any appropriate Basin Plan amendments, interim WLAs and LAs that lead to ultimate compliance with the TMDL specified in Table 5-9f, or with an approved amended TMDL, will be established with interim compliance dates. Schedules will also be established for submittal of implementation plans for control measures to achieve compliance with these WLAs, LAs, and compliance dates. These implementation plans will be considered by the Regional Board at a duly noticed public hearing.

The Regional Board is committed to the review of this TMDL every three years or more frequently if warranted by these or other studies. The County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Lake Forest, and Newport Beach, The Irvine Company and the Irvine Ranch Water District have undertaken to prepare a health risk assessment for Newport Bay for water contact recreation and shellfish harvesting beneficial uses. This study will evaluate whether exceedances of fecal coliform objectives correlates with actual impairment of beneficial uses and may recommend revisions to the Basin Plan objectives and/or beneficial use designations. Because this study is in progress, it is not required by this TMDL implementation plan, but will be considered in conjunction with the studies required by the implementation plan.
(End of Resolution No. 99-10)

4. Eutrophication (Amended by Resolution No. 98-9)

Nutrient loading to the Bay, particularly from the San Diego Creek watershed, contributes to seasonal algal blooms which can create a recreational and aesthetic nuisance. These algal blooms may also adversely affect wildlife.

The nutrient TMDL for the Newport Bay/San Diego Creek Watershed distributes the portions of the waterbody's assimilative capacity to various pollution sources so that the waterbody achieves its water quality standards. The Regional Board supports the trading of pollutant allocations among sources where appropriate. Trading can take place between point/point, point/nonpoint, and nonpoint/nonpoint pollutant sources. Optimizing alternative point and nonpoint control strategies through allocation tradeoffs may be a cost effective way to achieve pollution reduction benefits.

While there are a number of sources of nutrient input, tailwaters from the irrigation of agricultural crops and from several commercial nurseries in the watershed have been the predominant source. The Regional Board issued Waste Discharge Requirements to the three nurseries, requiring substantial reductions in their nutrient loads. Significant improvements have been achieved by these nurseries, largely due to the implementation of drip irrigation systems (which greatly reduce the amount of tailwater) and/or recycle systems. Installation of drip irrigation systems for other agricultural crops

has also significantly reduced the volume of nutrient-laden tailwaters. These improvements, coupled with the increased tidal flushing caused by the in-bay basins, appears to have resulted in a substantial downward trend in nitrate concentrations in the Bay. However, algal blooms are still occurring in Newport Bay and San Diego Creek. As a result, Newport Bay and San Diego Creek are listed as water quality impaired due to nutrients pursuant to Section 303(d) of the Clean Water Act. A nutrient TMDL to address this problem for Newport Bay and San Diego Creek is described in the following sections.

The hydrodynamic, sediment transport, and water quality models of Newport Bay being jointly developed by the U.S. Army Corps of Engineers and the Regional Board will be used in the future to further refine the algae and nutrient relationships in the Bay. These refinements will be considered in future reviews and revisions of the nutrient TMDL.

2.a. Quantifiable Nutrient Targets

The annual loading of total nitrogen and phosphorus to Newport Bay shall be reduced by 50% by 2012. The seasonal and annual loading targets are listed in Table 5-9a.

Table 5-9a Summary of Loading Targets and Compliance Time Schedules.

TMDL	**December 31, 2002[5]**	**December 31, 2007[5]**	**December 31, 2012[5]**
Newport Bay Watershed Total Nitrogen - Summer Load[1]	200,097 lbs.	153,861 lbs.	
Newport Bay Watershed Total Nitrogen - Winter Load[2]			144,364 lbs.
Newport Bay Watershed Total Phosphorus - Annual Load[3]	86,912 lbs.	62,080 lbs.	
San Diego Creek, Reach 2 Total Nitrogen - Daily Load[4]			14 lbs.

1 Total nitrogen summer loading limit applies between April 1 and September 30.

2 Total nitrogen winter loading limit applies between October 1 and March 31 when the mean daily flow rate at San Diego Creek at Campus Drive is below 50 cubic feet per second (cfs), and when the mean daily flow rate in San Diego Creek at Campus Drive is above 50 cubic feet per second (cfs), but not as the result of precipitation.

3 Total phosphorus annual loading is the sum of summer and winter loading during all daily flow rates.

4 Total nitrogen daily loading limit applies when the mean daily flow rate at San Diego Creek at Culver Drive is below 25 cubic feet per second (cfs), and when the mean daily flow rate in San Diego Creek at Culver Drive is above 25 cubic feet per second (cfs), but not as the result of precipitation.

5 Compliance to be achieved no later than this date. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable.

The margin of safety of the nutrient TMDL is implicit through the use of conservative assumptions. These conservative assumptions include controlling all forms of nitrogen and phosphorus and controlling seasonal and annual loading.

Load Allocations

The 5, 10, and 15 year seasonal load allocations of total nitrogen for the Newport Bay Watershed are presented in Table 5-9b. The 5 and 10-year annual total phosphorus load allocations for the Newport Bay Watershed are presented in Table 5-9c. The 15 year daily total nitrogen load allocations for San Diego Creek, Reach 2 are presented in Table 5-9d. The nutrient load reduction targets will be incorporated into waste discharge requirements as effluent limits, load allocations, and waste load allocations as necessary to ensure that:

a. the total inorganic nitrogen and narrative water quality objectives for Newport Bay and San Diego Creek are achieved

b. Clean Water Act requirements for the implementation of a TMDL are satisfied

Table 5-9b Seasonal Load Allocations of Total Nitrogen for the Newport Bay Watershed.

Nutrient TMDL	1990-1997 Loading	2002 Allocation[8]	2002 Summer Allocation (April-Sept)[8]	2007 Allocation[8]	2007 Summer Allocation (April-Sept)[8]	2012 Allocation[8]	2012 Winter Allocation (Oct-Mar)[7, 8, 11]
Newport Bay Watershed	lbs/year TN[2]	lbs/day TN[10]	lbs/season TN	lbs/day TN[10]	lbs/season TN	lbs/day TN[10]	lbs/season TN
Wasteload Allocation							
Hines Nurseries	96,360 TIN[1]	224	40,992	211	38,613	211	14,227
Bordiers Nursery	30,660 TIN	71	12,993	67	12,261	67	4,518
El Modeno Gardens	18,250 TIN	43	7,869	40	7,320	40	2,697
Unpermitted nurseries	-----[3]	30	5,490	24	4,392	24	1,618
Nursery subtotal			67,344		62,586		23,060
IRWD WWSP (permanent discharge)[9]	0	62		62		62	4,181
Silverado Constructors ETC[4]	0	141	25,671	141	25,671	141	9,459
Urban runoff	277,131[6]		20,785		16,628		55,442
Wasteload Allocation			113,800		104,885		92,142
Load Allocation							
Agricultural discharges	328,040[6]		22,963		11,481		38,283
Undefined sources (Open space, atmospheric deposition, rising groundwater, groundwater cleanup/dewatering, in-bay nitrogen)	-----[3]		63,334		37,495		13,939
Load Allocation			86,297		48,976		52,222
Total	1,087,000[5]		200,097		153,861		144,364
			5 year target		10 year target		15 year target

1 TIN = (NO3+NH3).
2 TN = (TIN + Organic N).
3 Unknown.
4 Wasteload allocation of a 50% reduction in nitrogen concentration upon commencement of discharge
5 1990-1997 annual average (summer loading and winter loading).
6 Estimated annual average (summer and winter loading).
7 Total nitrogen winter loading limit applies between October 1 and March 31 when the mean daily flow rate at San Diego Creek at Campus Drive is below 50 cubic feet per second (cfs), and when the mean daily flow rate in San Diego Creek at Campus Drive is above 50 cubic feet per second (cfs), but not as the result of precipitation.
8 Compliance to be achieved no later than this date. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable.
9 Daily load limit applies upon commencement of discharge.
10 Lbs/day TN (monthly average).
11 Assumes 67 non-storm days.

Table 5-9c Annual Total Phosphorous Load Allocations For The Newport Bay Watershed.

	2002 Allocation lbs/year TP[1]	**2007 Allocation lbs/year TP[1]**
TMDL	86,912	62,080
Urban areas	4,102	2,960
Construction sites	17,974	12,810
Waste Load Allocation	22,076	15,770
Agricultural areas	26,196	18,720
Open space	38,640	27,590
Load Allocation	64,836	46,310

[1] Compliance to be achieved no later than this date. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable.

Table 5-9d Annual Total Nitrogen Load Allocations For San Diego Creek, Reach 2 During Non-Storm Conditions.[1]

	2012 Allocation lbs/day TN[2]
TMDL	14 lbs/day (TN)
Waste Load Allocation (Urban runoff)	5.5 lbs/day (TN)
Load Allocation (Nurseries, agriculture, undefined sources)	8.5 lbs/day (TN)

[1] Total nitrogen loading limit applies when the mean daily flow rate at San Diego Creek at Culver Drive is below 25 cubic feet per second (cfs), and when the mean daily flow rate in San Diego Creek at Culver Drive is above 25 cubic feet per second (cfs), but not as the result of precipitation.

[2] Compliance to be achieved no later than this date. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable.

2.b. Phase I of the Nutrient TMDL

1. Review and Revision of Water Quality Objectives

By December 31, 2000, the Regional Board shall review, and revise as necessary, the numeric water quality objectives for total inorganic nitrogen for San Diego Creek, Reaches 1 and 2. The Regional Board shall also examine the appropriateness of establishing numeric water quality objectives for phosphorus for San Diego Creek, Reaches 1 and 2.

2. Establish New Waste Discharge Requirements

By December 31, 1999, the Regional Board shall issue new Waste Discharge Requirements (WDRs) to nursery operations of 5 acres or greater which currently are not regulated by WDRs (as of the effective date of this amendment) but discharge nutrients in excess of 1 mg/L TIN to storm channels which are tributary to Newport Bay. The new WDRs shall incorporate the appropriate wasteload, load, and margin of safety allocations identified in the nutrient load targets for the Newport Bay Watershed. Appropriate monitoring programs to evaluate compliance with load targets and allocations shall be required and incorporated into the WDRs

3. Revision of Existing Waste Discharge Requirements

a. By December 31, 1998, the Regional Board shall revise existing WDRs for nursery operations which currently (as of the effective date of this amendment) discharge nutrients in excess of 1 mg/L TIN to drainages which are tributary to Newport Bay. The revised WDRs shall incorporate the appropriate wasteload, load, and margin of safety allocations identified in the nutrient load reduction targets for the Newport Bay Watershed. Appropriate monitoring programs to evaluate compliance with load targets and allocations shall be required and incorporated into the WDRs.

b. By December 31, 1998, the Regional Board shall revise existing NPDES permits for discharges which currently (as of the effective date of this amendment) discharge nutrients in excess of 1 mg/L TIN to drainages which are tributary to Newport Bay. The revised NPDES permits shall incorporate the appropriate wasteload, load, and margin of safety allocations identified in the nutrient load reduction targets for the Newport Bay Watershed. Appropriate monitoring programs to evaluate compliance with load targets and allocations shall be required and incorporated into the NPDES permits.

c. By March 31, 1999, the Regional Board shall revise the Monitoring and Reporting Programs of existing NPDES permits and WDRs for groundwater dewatering and cleanup operations which discharge to drainages which are tributary to Newport Bay to include requirements for phosphorus and total nitrogen sampling and analysis. This monitoring will generate the data necessary to develop appropriate wasteload allocations for these discharges.

4. Agricultural Activities

A watershed-wide nutrient management program for agricultural activities shall be developed by the Orange County Farm Bureau, University of California Cooperative Extension, and the affected growers, in conjunction with Regional Board staff. The proposed management program shall be submitted by July 1, 1999. The nutrient management program will not become effective until approved by the Regional Water Quality Control Board at a duly noticed public meeting as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.).

5. Urban Stormwater

Co-permittees of the Orange County Areawide Urban Stormwater Permit (Order No. 96-31) shall be required to submit for approval by the Regional Board's Executive Officer an analysis of appropriate Best Management Practices which will be additionally implemented through the Drainage Area Management Plan (DAMP) to achieve the short term (5-year) interim targets and final nutrient load reduction targets for the Newport Bay Watershed. The co-permittees shall also be required to provide a proposal for 1) evaluating the effectiveness of control actions implemented and 2) evaluating compliance with the nutrient load allocation. The proposal and analysis shall be submitted by July 1, 1999, and shall be implemented upon approval of the Executive Officer as specified by Section IV.1.a.ii.A of Order No. 96-31.

6. Phosphorus

The primary reduction of phosphorus loading is expected to be achieved by the implementation of the total maximum daily load for sediment in the Newport Bay/San Diego Creek watershed. The sediment TMDL is incorporated into the nutrient TMDL for the Newport Bay/San Diego Creek watershed by reference (Note - the sediment TMDL will be appropriately referenced once it is approved by OAL). Limits on phosphorus discharges shall be incorporated into the new and revised Waste Discharge Requirements previously listed, as necessary.

2.c. Phase II of the Nutrient TMDL

1. Monitoring

The Regional Board will establish and oversee a regional monitoring program (RMP) for the Newport Bay watershed. The new and revised WDRs, NPDES permits, DAMP, and agricultural nutrient management plans shall have include requirements to conduct self-monitoring, or in lieu of self-monitoring, to participate in the RMP. Participation in the RMP could result in the reduction of self-monitoring requirements. The RMP will not become effective until approved by the Regional Water Quality Control Board at a duly noticed public meeting as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.).

The RMP shall be designed by the Regional Board to assess the attainment of the goals of the nutrient TMDL. The objectives of the monitoring program shall be the quantification of the three endpoints of the nutrient TMDL: (1) the seasonal nutrient loading from the watershed; (2) the nutrient concentration in San Diego Creek, Reaches 1 and 2; and (3) the extent, magnitude, and duration of algal blooms in San Diego Creek and Newport Bay. The monitoring plan shall be implemented by March 1999.

The Regional Board will initiate investigations into the currently unknown sources of nutrients in the Newport Bay Watershed. The Regional Board, in cooperation with other agencies and entities, will investigate the occurrence of rising shallow groundwater in the Newport Bay Watershed. The study will focus on the contributions of rising groundwater to the loading of nutrients to drainage channels which are tributary to Newport Bay. Additionally, the study of the nutrient and algae processes of Newport Bay and San Diego Creek will be encouraged and supported by the Regional Board. Regional Board support could include financial resources, personnel, agency coordination, and scientific review.

2. Actions and Schedule to Achieve Water Quality Objectives

The actions and schedule to achieve water quality objectives is outlined in Table 5-9e. Meeting load reduction targets is highly dependent upon the effectiveness of individual actions; therefore, the Regional Board will review the TMDL, WDRs and compliance schedule at least once every 3 years. Any or all of these may be revised in order to meet water quality standards.

Table 5-9e Schedule of Actions to Achieve Water Quality Objectives.

Program Actions	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Review and revision of water quality objectives			X													
New nursery permits		X														
Revise existing permits	X															
Nurseries	X															
NPDES permit	X															
Groundwater cleanup/dewatering		X														
Agricultural nutrient management plans		X														
Urban runoff BMP plan		X														
Sediment TMDL implementation	X															
Monitoring		X														
Newport Bay Watershed total nitrogen - summer TMDL targets					X					X						
Newport Bay Watershed total nitrogen - winter TMDL target															X	
Newport Bay Watershed total phosphorus - annual TMDL targets					X					X						
San Diego Creek, Reach 2 total nitrogen - daily target															X	
Evaluation of TMDL			X			X			X		X			X		X

2.d. Estimated Costs of Agricultural Water Quality Control Programs and Potential Sources of Financing

The estimates of capital and operational costs to achieve the nutrient targets of the nutrient TMDL for the San Diego Creek/Newport Bay watershed range from $0.69 million/year to $4.73 million/year.

Potential funding sources include:

1. Private financing by individual sources.

2. Bonded indebtedness or loans from governmental institutions.

3. Surcharge on water deliveries to lands contributing to the drainage problem.

4. Ad Valorem tax on lands contributing to the drainage problem.

5. State or federal grants or low-interest loan programs.

6. Single-purpose appropriations from federal or State legislative bodies (including land retirement programs).

4. Toxic Substance Contamination (Amended by Resolution No. R8-2003-0039)

San Diego Creek and Newport Bay are not attaining water quality standards with respect to certain classes of toxic pollutants. On June 14, 2002, USEPA established Total Maximum Daily Loads (TMDLs) for selenium, heavy metals (cadmium, copper, lead, and zinc), organochlorine pesticides (chlordane, dieldrin, DDT, and toxaphene), PCBs, and organophosphate pesticides (diazinon and chlorpyrifos). In addition, USEPA established a separate TMDL for the Rhine Channel in Lower Newport Bay. Table 5-9i shows these TMDLs, the constituents addressed, and the waterbodies affected.

USEPA's TMDLs do not specify implementation plans, which are the responsibility of the Regional Board. The Regional Board has adopted or will adopt Basin Plan amendments to incorporate the USEPA TMDLs, revised if and as appropriate, into the Basin Plan. These amendments will include implementation plans. The anticipated schedule for these Basin Plan amendments is also shown in Table 5-9i.

Table 5-9i. USEPA TMDLs Established June 14, 2002

TMDL	Basin Plan Schedule	Location	Constituents
Organophosphate Pesticides	2003	SDC	Diazinon, chlorpyrifos
		UNB	Chlorpyrifos
Selenium	2007	SDC, UNB LNB	Selenium
Metals	2007	SDC	Cd, Cu, Pb, Zn
		UNB	Cd, Cu, Pb, Zn
		LNB	Cu, Pb, Zn
Organochlorine Compounds	2007	SDC	Chlordane, dieldrin, DDT, PCBs, toxaphene
		UNB	Chlordane, DDT, PCBs
		LNB	Chlordane, dieldrin, DDT, PCBs
Rhine Channel	2007	Rhine Channel	Se, Cr, Hg, Cu, Pb, Zn Chlordane, dieldrin, DDT, PCBs

SDC= San Diego Creek; UNB=Upper Newport Bay; LNB=Lower Newport Bay

4.a Diazinon and Chlorpyrifos TMDL

Aquatic toxicity in San Diego Creek and Upper Newport Bay causes adverse impacts to the established beneficial uses of those waterbodies.

A report prepared by Regional Board staff describes the aquatic life toxicity problems in San Diego Creek and Upper Newport Bay in greater detail and discusses the technical basis for the TMDL that follows[1]. This TMDL is the same as that promulgated by the USEPA on June 14, 2002, but an implementation plan is also specified (see Section 4.a.i.). The USEPA TMDL was, in fact, based on a draft TMDL prepared by Regional Board staff. The TMDL addresses toxicity due to diazinon and chlorpyrifos in San Diego Creek and chlorpyrifos in Upper Newport Bay. Implementation of this TMDL is expected to address, to a significant extent, the occurrence of aquatic life toxicity in these waterbodies. Reduction in aquatic life toxicity will help assure attainment of water quality standards; that is, compliance with water quality objectives and protection of beneficial uses.

Table 5-9j shows the TMDL and the allocations for diazinon and chlorpyrifos in San Diego Creek.

[1] Diazinon and Chlorpyrifos TMDL, Upper Newport Bay and San Diego Creek, April 4, 2003

Table 5-9j. Diazinon and Chlorpyrifos Allocations for San Diego Creek

Category	Diazinon (ng/L)		Chlorpyrifos (ng/L)	
	Acute	Chronic	Acute	Chronic
Wasteload Allocation	72	45	18	12.6
Load allocation	72	45	18	12.6
MOS	8	5	2	1.4
TMDL	**80**	**50**	**20**	**14**

MOS = Margin of Safety; Chronic means 4-consecutive day average

Table 5-9k shows the TMDL and the allocations for chlorpyrifos in Upper Newport Bay.

Table 5-9k. Chlorpyrifos Allocations for Upper Newport Bay

Category	Acute (ng/L)	Chronic (ng/L)
Wasteload allocation	18	8.1
Load allocation	18	8.1
MOS	2	0.9
TMDL	**20**	**9**

MOS = Margin of Safety; Chronic means 4-consecutive day average

The TMDL and its allocations contain an explicit 10% margin of safety. In addition, a substantial margin of safety is implicitly incorporated in the TMDL through use of conservative assumptions.

4.a.i TMDL Implementation

Table 5-9l outlines the tasks and schedules to implement the TMDL.

Table 5-9l. TMDL Task Schedule

Task No.	Task	Schedule	Description
1	USEPA Re-Registration Agreements	12/2001 to 12/2006	Phase-out of uses specified in the re-registration agreements. Should end over 90% of usage. [2]
2	Revise Discharge Permits	2005	WDR and NPDES permits will be revised to include the TMDL allocations, as appropriate.
3	Pesticide Runoff Management Plan	2004	A pesticide runoff management plan will be developed
4	Monitoring	2003	Modify existing regional monitoring program to include analysis for organophosphate pesticides and toxicity
	Special Studies		
5a	Atmospheric deposition	2003	Quantify atmospheric deposition of chlorpyrifos loading to Upper Newport Bay
5b	Mixing volumes in Upper Newport Bay	2003	Model mixing and stratification of chlorpyrifos in Upper Newport Bay during storm events

Task 1: USEPA Re-Registration Agreements

The re-registration agreements negotiated by USEPA with the manufacturers of diazinon and chlorpyrifos are the most significant factor affecting the implementation plan. Usage of both diazinon and chlorpyrifos in the Newport Bay Watershed is expected to be reduced by over 90 percent.

Task 2: Revise Discharge Permits

The TMDL allocates wasteloads to all dischargers in the watershed. Since the TMDL is concentration-based, these wasteloads are concentration limits. The concentration limits will be incorporated into existing and future discharge permits in the watershed. Compliance schedules would be included in permits only if they are demonstrated to be necessary. Compliance would be required as soon as possible, but no later than December 1, 2007.

Task 3: Pesticide Runoff Management Plan

A pesticide runoff management plan will be developed for the watershed as a cooperative project between the Regional Board and stakeholders.

Task 4: Monitoring

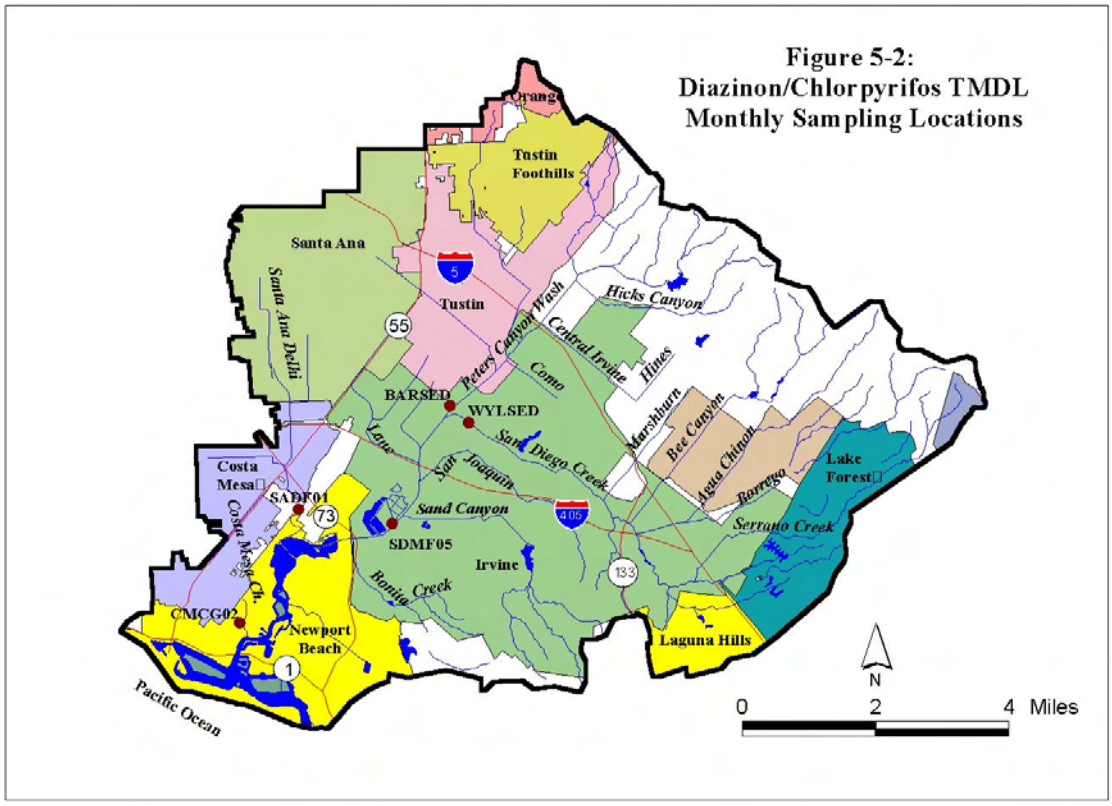
Routine monitoring is necessary to assess compliance with the allocations specified in the TMDL. The County of Orange, the Cities of Tustin, Irvine, Costa

[2] This task is not within the purview of the Regional Board, but is nevertheless of critical significance for implementation of the TMDL.

Mesa, Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed will be required to propose a plan by January 30, 2004 for routine monitoring to determine compliance with the TMDL allocations for diazinon and chlorpyrifos. At a minimum, the proposed plan must include the collection of monthly samples at the stations specified in Table 5-9m and shown in Figure 5-2 and analysis of the samples for diazinon and chlorpyrifos. Monthly toxicity tests should also be conducted at several locations in the watershed. Data summaries will be required monthly. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL will be required to be submitted by November 30 of each year.

Table 5-9m. Minimum Required Monthly Sampling Stations

Station Code	Location
BARSED	Peters Canyon Wash
WYLSED	San Diego Creek at Harvard Dr.
SDMF05	San Diego Creek at Campus Dr.
SADF01, or CMCG02	Santa Ana Delhi Channel, or Costa Mesa Channel



In lieu of this coordinated, regional monitoring plan, one or more of the parties identified in the preceding paragraph may submit an individual or group plan to conduct routine monitoring in areas solely within their jurisdiction to determine compliance with the TMDL. Any such individual or group plans must also be submitted by January 30, 2004. Reports of the data collected pursuant to approved individual/group plan(s) will be required to be submitted monthly, and an annual report summarizing the data and evaluating compliance with the TMDL will be required to be submitted by November 30 of each year.

It is likely that implementation of these requirements will be through the issuance of Water Code Section 13267 letters to the affected parties. The monitoring plan(s) will be considered by the Regional Board and implemented upon the Regional Board's approval.

Task 5: Special Studies

With the anticipated assistance of stakeholders in the watershed, the Regional Board will conduct investigations to (1) quantify the significance of atmospheric deposition of chlorpyrifos to Upper Newport Bay, and (2) determine the adequacy of the freshwater allocations for chlorpyrifos in the tributaries to Upper Newport Bay in achieving the lower saltwater allocations. The existing hydrodynamic model for Newport Bay is being used to perform simulations that predict contaminant concentrations in the Bay based on various flow and management scenarios. The model results will be used to verify whether the TMDL allocations for chlorpyrifos in the watershed will be sufficient to achieve the TMDL allocations in Upper Newport Bay. One of the questions to be addressed is the magnitude of toxic exposure that could result from development of a freshwater lens associated with the discharge of stormwater to Upper Newport Bay.

4.a.ii Adjust TMDL

Based on the results of the special studies and recommendations made in the Pesticide Runoff Monitoring reports, changes to the TMDL may be warranted. Such changes would be considered through the Basin Plan Amendment process.

The Regional Board is committed to the review of this TMDL every three years, or more frequently if warranted by these or other studies.**(End of Resolution No. RB-2003-0039)**

Anaheim Bay/Huntington Harbour

As in Newport Bay, bacteria and toxics threaten the water quality and beneficial uses of Anaheim Bay/Huntington Harbour. As shown in Table 5-10, the presence of toxic metals and pesticides/herbicides has resulted in the designation of Anaheim Bay and Huntington Harbour as a Toxic Hot Spot for some constituents and a Potential Toxic Hot Spot for other constituents. Two major storm drains, the Bolsa Chica Channel and the East Garden Grove Wintersburg Channel, as well as their tributaries, drain in to the Anaheim Bay/Huntington Harbour complex. Inputs of stormwater and urban nuisance flows via

these channels appear to be significant sources of pollutants. The Count of Orange's general stormwater permit requires the implementation of best management practices (BMPs) and other measures in the watershed to control these inputs to the maximum extent practicable.

During 1992-93, the Regional Board contracted with UC Irvine and UC Davis to evaluate the occurrence and impacts of these toxics in Huntington Harbour [Ref. 21, 22]. Results of the study indicated that concentrations of trace metals have decreased over a 13 year period and 1992/93 measurements met established water quality criteria. However, an unidentified nonpolar organic compound was found to be acutely toxic to test species.

Anaheim Bay (inland of Pacific Coast Highway bridge) and Huntington Harbour are designated as no discharge areas for vessel sanitary wastes. Pumpout facilities are in place throughout the Harbour to facilitate compliance. Additional discussion of the activities of the Huntington Harbour Waterways Committee is provided in Chapter 7.

Big Bear Lake (Amended by Resolution No. R8-2006-0023)

Big Bear Lake, located in the San Bernardino Mountains, was created by the construction of the Bear Valley Dam in 1884. The Lake has a surface area of approximately 3,000 acres, a storage capacity of 73,320 acre-ft and an average depth of 24 feet. The lake reaches its deepest point of 72 feet at the dam. The Big Bear Lake drainage basin encompasses 37 square miles and includes more than 10 streams. Local stream runoff and precipitation on the Lake are the sole source of water supply to the Lake. The spillway altitude is 6,743.2 feet. The major inflows to the lake are creeks, including Rathbone (Rathbun) Creek, Summit Creek, and Grout Creek. Outflow from the Lake is to Bear Creek, which is tributary to the Santa Ana River at about the 4,000-foot elevation level. Twelve percent of Big Bear Lake's drainage basin consists of the Lake itself. The US Forest Service is the largest landowner in the Big Bear area. Two ski resorts, Bear Mountain and Snow Summit, lease land from the Forest Service.

The beneficial uses of Big Bear Lake include cold freshwater habitat (COLD), warm freshwater habitat (WARM), water contact recreation (REC1), non-contact water recreation (REC2), municipal and domestic supply (MUN), agriculture supply (AGR), groundwater recharge (GWR), wildlife habitat (WILD) and rare, threatened or endangered species (RARE).

Big Bear Lake is moderately eutrophic. During the summer months, deeper water may exhibit severe oxygen deficits. Nutrient enrichment has resulted in the growth of aquatic plants, which has impaired the fishing, boating, and swimming uses of the lake. To control this vegetation, mechanical harvesters are used to remove aquatic plants, including the roots.

Toxics may be entering the Big Bear Lake watershed and accumulating in aquatic organisms and bottom sediments at concentrations that are of concern, not only for the

protection of aquatic organisms, but for the protection of human health as well. Past Toxic Substances Monitoring Program data have indicated the presence of copper, lindane, mercury, zinc, and PCBs in fish tissue.

During 1992-93, the Regional Board conducted a Phase I Clean Lakes study (Section 314 of the Clean Water Act) to evaluate the current water quality condition of the lake and its major tributaries [Ref. 20]. The focus of the study was to identify the tributaries responsible for inputs of toxics and nutrients. As a result of data collected in the Clean Lakes Study, Big Bear Lake and specific tributaries were placed on the 1994 Clean Water Act Section 303(d) List of Water Quality Limited Segments for the reasons indicated in Table 5-9a-b.

Table 5-9a-b

Big Bear Lake Watershed Waterbodies on the
1994 303(d) List of Impaired Waters

WATERBODY	STRESSOR
Big Bear Lake	nutrients
	noxious aquatic plants
	sedimentation/siltation
	metals
	copper
	mercury
Rathbone (Rathbun) Creek	nutrients
	sedimentation/siltation
Grout Creek	metals
	nutrients
Summit Creek	nutrients
Knickerbocker Creek	metals
	pathogens

In 2000, the Regional Board convened a TMDL workgroup to assist in the development of Total Maximum Daily Loads for the Big Bear Lake watershed. The Big Bear Municipal Water District, a key contributor to the workgroup, created the Big Bear Lake TMDL Task Force, including representatives of the District, Regional Board staff, the San Bernardino County Flood Control District, the City of Big Bear Lake, the Big Bear Area Regional Wastewater Authority, the State of California, Department of Transportation (Caltrans), the US Forest Service and the Big Bear Mountain Resorts. Initial TMDL development efforts were focused on nutrients, leading to Regional Board adoption of a nutrient TMDL for dry

hydrological conditions for Big Bear Lake in 2006. Nutrient TMDLs for wet and/or average hydrological conditions will be incorporated in the Basin Plan when these TMDLs are developed in the future. As shown in Table 5-9a-f, the development of these TMDLs is a requirement of the adopted TMDL implementation plan for the nutrient TMDL for dry hydrological conditions.

1. Big Bear Lake Nutrient Total Maximum Daily Loads (TMDLs)

Past studies, starting in 1968/1969, have shown that Big Bear Lake is moderately eutrophic and that the limiting nutrient is generally phosphorus. In Big Bear Lake, nutrients (nitrogen and phosphorus) are available in the water column and sediment and are taken up by aquatic macrophytes and algae. Nutrients are also bound in living and dead organic material, primarily macrophytes and algae. Decomposition of this organic material, as well as macrophyte and algal respiration, consumes dissolved oxygen, resulting in the depletion of dissolved oxygen from the water column. Oxygen depletion in the hypolimnion results in anoxic conditions, leading to periodic fish kills in Big Bear Lake. Oxygen depletion also results in the release of nutrients from the sediment into the water column, promoting more algae and aquatic macrophyte production. Nutrients released by plant decomposition are cycled back into a bioavailable form.

Although aquatic macrophytes provide protection from shoreline erosion, habitat for fish and other aquatic biota and waterfowl habitat, excessive growth of noxious and nuisance species, particularly Eurasian watermilfoil (*Myriophyllum spicatum*) impairs recreational uses of the Lake and reduces plant and animal species and habitat diversity.

As stated above, development of nutrient TMDLs to address these problems was initiated in 2000. In this process, it was recognized that insufficient data for wet or average hydrological conditions were available to allow calibration of the lake water quality model used to calculate the TMDL. Accordingly, a TMDL was developed to address dry hydrologic conditions only (see Section 1.B., below). This TMDL was adopted by the Regional Board in 2006 and became effective on August 21, 2007. The implementation plan included with this TMDL specifies a requirement for the development of nutrient TMDLs for wet and/or average hydrological conditions.

A key step in the development of the nutrient TMDL was the identification of the numeric targets to be achieved. The numeric targets, identified in Section 1.A., below, do not vary based upon hydrological condition. Like the approved TMDL for dry hydrological conditions, the TMDLs for wet and/or average hydrological conditions that will be developed are expected to assure also that these numeric targets are achieved. Indeed, since the TMDL for dry hydrological conditions was developed to meet the targets under the critical, worst-case conditions, consistent compliance with these targets is expected to be achieved even in the absence of TMDLs for wet/average hydrological conditions, given the greater lake volume and dilution anticipated under

wetter conditions. It is recognized that future modifications to the targets may be found necessary.

1. A. Numeric Targets

As shown in Table 5-9a-c, both "causal and response" numeric targets are specified for Big Bear Lake. The causal target is for phosphorus. Phosphorus is the primary limiting nutrient in Big Bear Lake[1] Response targets include macrophyte coverage, percentage of nuisance aquatic vascular plant species and chlorophyll *a* concentration. These response targets are more direct indicators of impairment and are specified to assess and track water quality improvements in Big Bear Lake

A weight of evidence approach will be used to assess compliance with the TMDL, which means that data pertaining to all the numeric targets will be evaluated and non-compliance with one target will not automatically imply non-compliance with the TMDL.

[1]There is evidence that nitrogen is a limiting nutrient under certain conditions. However, given data and analytical limitations, no nitrogen targets are specified. Nitrogen monitoring is required as part of this TMDL. The data will be used to specify nitrogen targets in the future, as warranted.

Table 5-9a-c
Big Bear Lake Nutrient TMDL Numeric Targets[a]

Indicator	Target Value
Total P concentration	Annual average[b] no greater than 35 µg/L; to be attained no later than 2015 (dry hydrological conditions), 2020 (all other times)[c]
Macrophyte Coverage	30-40% on a total lake area basis; to be attained by 2015 (dry hydrological conditions), 2020 (all other times) [c, d]
Percentage of Nuisance Aquatic Vascular Plant Species	95% eradication on a total area basis of Eurasian Watermilfoil and any other invasive aquatic plant species; to be attained no later than 2015 (dry hydrological conditions), 2020 (all other times) [c, d]
Chlorophyll *a* concentration	Growing season[e] average no greater than 14 µg/L; to be attained no later than 2015 (dry hydrological conditions), 2020 (all other times)[c]

[a] Compliance with the targets to be achieved as soon as possible, but no later than the date specified

[b] Annual average determined by the following methodology: the nutrient data from both the photic composite and discrete bottom samples are averaged by station number and month; a calendar year average is obtained for each sampling location by averaging the average of each month; and finally, the separate annual averages for each location are averaged to determine the lake-wide average. The open-water sampling locations used to determine the annual average are MWDL1, MWDL2, MWDL6, and MWDL9 (see 1.B.4. Implementation, Task 4.2, Table 5-9a-i).

[c] Compliance date for wet and/or average hydrological conditions may change in response to approved TMDLs for wet/average hydrological conditions.

[d] Calculated as a 5-yr running average based on measurements taken at peak macrophyte growth as determined in the Aquatic Plant Management Plan (see 1.B.4. Implementation, Task 6C)

[e] Growing season is the period from May 1 through October 31 of each year. The open-water sampling locations used to determine the growing season average are MWDL1, MWDL2, MWDL6 and MWDL9 (see 1.B.4. Implementation, Task 4.2, Table 5-9a-i). The chlorophyll *a* data from the photic samples are averaged by station number and month; a growing season average is obtained for each sampling location by averaging the average of each month; and finally, the separate growing season averages for each location are averaged to determine the lake-wide average.

1.B. Big Bear Lake Nutrient Total Maximum Daily Load (TMDL) for Dry Hydrological Conditions

The TMDL technical report [Ref. #25] describes in detail the technical basis for the TMDL for Dry Hydrological Conditions that follow.

1. B. 1. Nutrient TMDL, WLAs and LAs and Compliance Dates – Dry Hydrological Conditions

A TMDL, and the WLAs and LAs necessary to achieve it, are established for total phosphorus for dry hydrological conditions only. As stated above, phosphorus and nitrogen are the nutrients that cause beneficial use impairment in Big Bear Lake. Dry hydrological conditions are defined by the conditions observed from 1999-2003; that is, average tributary inflow to Big Bear Lake ranging from 0 to 3,049 AF, average lake levels ranging from 6671 to 6735 feet and annual precipitation ranging from 0 to 23 inches. TMDLs, WLAs and LAs for wet and/or average hydrological conditions will be established as part of the TMDL Phase 2 activities once additional data have been collected (see 1.B.4. TMDL Implementation, Task 9).

The phosphorus TMDL for Big Bear Lake for dry hydrological conditions is shown in Table 5-9a-d. Wasteload allocations for point source discharges and load allocations for nonpoint source discharges are shown in Table 5-9a-e.

Table 5-9a-d

Big Bear Lake Nutrient TMDL for Dry Hydrological Conditions

	Total Phosphorus (lbs/yr) [b]
TMDL[a]	26,012

[a] Compliance to be achieved as soon as possible, but no later than December 31, 2015.
[b] Specified as an annual average for dry hydrological conditions only.

Table 5-9a-e

Big Bear Lake
Phosphorus Wasteload and Load Allocations for Dry Hydrological Conditions

Big Bear Lake Nutrient TMDL for Dry Hydrological Conditions	Total Phosphorus Load Allocation (lbs/yr)[a, b]
TMDL	26,012
WLA	475
Urban	475
LA	25,537
Internal Sediment	8,555
Internal macrophyte	15,700
Atmospheric Deposition	1,074
Forest	175
Resort	33

[a] Allocation compliance to be achieved as soon as possible, but no later than December 31, 2015.
[b] Specified as an annual average for dry hydrological conditions only.

1.B.2. Margin of Safety

The Big Bear Lake Nutrient TMDL for Dry Hydrological Conditions includes an implicit margin of safety (MOS) as follows:

1. The derivation of numeric targets based on the 25th percentile of nutrient data;
2. The use of conservative assumptions in modeling the response of Big Bear Lake to nutrient loads.

1. B.3. Seasonal Variations/Critical Conditions

The critical condition for attainment of aquatic life and recreational uses in Big Bear Lake occurs during the summer and during dry years, when nutrient releases from the sediment are greatest and water column concentrations increase. Macrophyte biomass peaks in the summer/early fall. Recreational uses of the lake are also highest during the summer. This nutrient TMDL for Big Bear Lake is focused on the critical dry hydrological conditions and, in particular, on the control of the internal sediment loads that dominate during these periods. This is the first phase of TMDLs needed to address eutrophication in Big Bear Lake. The next phase will include collection of data needed to refine the in-lake and watershed models (see

1.B.4. TMDL Implementation, Task 6A) and to develop TMDLs that address other hydrological conditions (see 1.B.4. TMDL Implementation, Task 9). TMDLs for wet and average hydrological conditions will be developed to address external loading that contributes to the nutrient reservoir in the lake and thus eutrophic conditions, particularly during the critical dry periods. However, it is important to note again that since the TMDL for dry hydrological conditions was developed to meet the numeric targets under the critical, worst-case conditions, consistent compliance with these targets is expected to be achieved even in the absence of TMDLs for wet/average hydrological conditions, given the greater lake volume and dilution anticipated under wetter conditions.

The TMDL recognizes that different nutrient inflow and cycling processes dominate the lake during different seasons. These processes were simulated in the in-lake model using data collected during all seasons over a multi-year period**.** Thus, the model results reflect all seasonal variations. The phosphorus numeric target is expressed as an annual average, while the chlorophyll *a* numeric target is expressed as a growing season average. The intent is to set targets that will, when achieved, result in improvement of the trophic status of Big Bear Lake year-round.

Compliance with numeric targets will ensure water quality improvements that prevent excessive algae blooms and fish kills, particularly during the critical summer period when these problems are most likely to occur.

1.B.4. TMDL Implementation

Table 5-9a-f outlines the tasks and schedules to implement the TMDL for Dry Hydrological Conditions. Each of these tasks is described below.

Table 5-9a-f

Big Bear Lake Nutrient TMDL Implementation
Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As soon As Possible but No Later Than
TMDL Phase 1		
Task 1	Establish New Waste Discharge Requirements for Nutrient Sources	February 29, 2008
Task 2	Establish New Waste Discharge Requirements for Lake Restoration Activities	February 28, 2009
Task 3	Revise Existing Waste Discharge Requirements	February 29, 2008
Task 4	Nutrient Water Quality Monitoring Program 4.1 Watershed-wide Nutrient Monitoring Plan(s) 4.2 Big Bear Lake Nutrient Monitoring Plan(s)	Plan/schedule due November 30, 2007. Annual reports due February 15
Task 5	*Atmospheric Deposition Determination*	Plan/schedule due August 31, 2008
Task 6	*Big Bear Lake – Lake Management Plan, including:* *6A. Big Bear Lake and Watershed Model Updates* 6B. Big Bear Lake In-Lake Sediment Nutrient Reduction Plan 6C. Big Bear Lake Aquatic Plant Management Plan	Plan/schedule due August 31, 2008. Annual reports due February 15
TMDL Phase 2		
Task 7	Review/Revision of Big Bear Lake Water Quality Standards 7.1 Review/Revise Nutrient Water Quality Objectives 7.2 Development of biocriteria 7.3 Development of natural background definition	December 31, 2015
Task 8	Review Big Bear Lake Tributary Data	December 31, 2008
Task 9	Develop TMDLs, WLAs and LAs for wet and/or average hydrological conditions	December 31, 2012
Task 10	Review of TMDL/WLAs/Las	Once every 3 years

Task 1: Establish New Waste Discharge Requirements for Nutrient Sources

On or before February 29, 2008, the Regional Board shall issue the following new waste discharge requirements

1.1 Waste Discharge Requirements (WDRs) or Conditional Waiver of WDRs to the US Forest Service to incorporate the nutrient load allocations, compliance schedule and monitoring and reporting requirements for Forested Areas.

Other nutrient discharges will be addressed and permitted as appropriate.

Task 2: Establish New Waste Discharge Requirements for Lake Restoration Activities

On or before February 28, 2009, the Regional Board shall issue the following new waste discharge requirements

NPDES Permit to the US Forest Service, the State of California, Department of Transportation (Caltrans), the County of San Bernardino, San Bernardino County Flood Control District, the City of Big Bear Lake, and Big Bear Mountain Resorts for Lake restoration activities, including, but not limited to alum treatment and/or herbicide treatment. Requirements specified in these Waste Discharge Requirements, shall be developed using the Aquatic Plant Management Plan and Schedule submitted pursuant to Task 6C.

Task 3: Review and/or Revise Existing Waste Discharge Requirements

Waste Discharge Requirements (WDRs) have been issued by the Regional Board regulating discharge of various types of wastes in the Big Bear Lake watershed. On or before February 29, 2008, these WDRs shall be reviewed and revised as necessary to incorporate the nutrient wasteload allocations, compliance schedule and TMDL monitoring and reporting requirements.

3.1 Waste Discharge Requirements for the San Bernardino County Flood Control and Transportation District, the County of San Bernardino and the Incorporated Cities of San Bernardino County within the Santa Ana Region, Areawide Urban Runoff, NPDES No. CAS 618036 (Regional Board Order No. R8-2002-0012). The current Order has provisions to address TMDL issues. In light of these provisions, revision of the Order may not be necessary to address TMDL requirements.

3.2 State of California, Department of Transportation (Caltrans) Stormwater Permit

Provision E.1 of Order No. 99-06-DWQ requires Caltrans to maintain and implement a Storm Water Management Plan (SWMP). Annual updates of the SWMP needed to maintain an effective program are required to be submitted to the State Water

Resources Control Board.

Provision E.2 of Order No. 99-06-DWQ requires Caltrans to submit a Regional Workplan by April 1 of each year for the Executive Officer's approval. As part of the annual update of the SWMP and Regional Workplan, Caltrans shall submit plans and schedules for conducting the monitoring and reporting requirements specified in Task 4 and the special studies required in Task 6.

Task 4: Monitoring

4.1 Watershed-wide Nutrient Water Quality Monitoring Program

No later than November 30, 2007, the US Forest Service, the State of California, Department of Transportation (Caltrans), the County of San Bernardino, San Bernardino County Flood Control District, the City of Big Bear Lake and Big Bear Mountain Resorts shall, as a group, submit to the Regional Board for approval a proposed watershed-wide nutrient monitoring program that will provide data necessary to review and update the Big Bear Lake Nutrient TMDL, to determine specific sources of nutrients and to develop TMDLs for other hydrological conditions. Data to be collected and analyzed shall address, at a minimum, determination of compliance with the phosphorus dry condition TMDL, including the WLAs and LAs, and with the existing total inorganic nitrogen (TIN) objective.

At a minimum, the proposed plan shall include the collection of samples at the stations specified in Table 5-9a-g and shown in Figure 5-7, at the frequency specified in Table 5-9a-h. Modifications to the required sampling stations, sampling frequencies and constituents to be monitored (see below) will be considered upon request by the stakeholders, accompanied by a report that describes the rationale for the proposed changes and identifies recommended alternatives. In addition to water quality samples, every two weeks on a year-round basis, visual monitoring (including documenting flow type and stage) determinations shall be made at all stations shown in Table 5-9a-g. Flow measurements will be required each time water quality samples are obtained.

At a minimum, samples shall be analyzed for the following constituents:

- Total nitrogen
- Nitrate + nitrite nitrogen
- Total phosphorus
- Total dissolved phosphorus
- Suspended sediment concentration
- Chlorophyll *a*
- Dissolved oxygen
- Alkalinity
- Bedload concentration
- Total nitrogen in sediment
- Ammonia nitrogen
- Total dissolved nitrogen
- Ortho-phosphate (SRP)
- Temperature
- Turbidity
- pH
- Conductivity
- Hardness
- Grain size
- Total phosphorus in sediment

Note: Chlorophyll *a* to be collected and analyzed only from May 1- October 31 of each year at the frequencies described in Table 5-9a-h; chlorophyll *a* sampling not required at Bear Creek outlet.

In addition, the proposed plan shall include a proposed plan and schedule for development of a Big Bear Lake Sedimentation Processes Plan for the determination of nutrient loads associated with sediment. At a minimum, the proposed plan shall include the placement of sediment traps at the mouths of Rathbun, Knickerbocker, Grout and Boulder Creeks to determine the rate of influx of sediment and particulate nutrients to Big Bear Lake, as specified in Table 5-9a-g and shown in Figure 5-7, at the specified frequency indicated in Table 5-9a-h. Modifications to the required sampling stations, sampling frequencies and constituents to be monitored will be considered upon request by the stakeholders, accompanied by a report that describes the rationale for the proposed changes and identifies recommended alternatives. The proposed monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL/WLAs/LAs shall be submitted by February 15 of each year.

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval. Any such individual or group monitoring plan is due no later than November 30, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report of data collected pursuant to approved individual/group plan(s) shall be submitted by February 15 of each year. The report shall summarize the data and evaluate compliance with the TMDL/WLAs/LAs.

Table 5-9a-g
Big Bear Lake Watershed
Minimum Required Sampling Station Locations

Station Number	Station Description
MWDC2	Bear Creek Outlet
MWDC3	Grout Creek at Hwy 38
MWDC4	Rathbun Creek at Sandalwood Ave.
MWDC5	Summit Creek at Swan Dr.
MWDC6	Rathbun Creek below the Zoo
MWDC8	Knickerbocker Creek at Hwy 18
MWDC13	Boulder Creek at Hwy 18

Note: Bear Creek outlet to be sampled monthly from March – November. At a minimum, samples shall be analyzed at the frequencies specified in Table 5-9a-h:

Table 5-9a-h
Big Bear Lake Watershed
Sampling Frequency

Flow type	Months monitoring is required	Frequency
Baseflow	January 1 – December 31	Once/month when baseflow is present;
Snowmelt	January 1 – May 31[1]	Varied -See note 2 below
Storm events	January 1 – December 31	3 storms per year[3]

[1] Sampling to begin after the first substantial snowfall resulting in an accumulation of 1.0 inch or more of snow

[2] Samples to be collected daily for the first three days of the snowmelt period. If ambient air temperatures remain above freezing after three days have passed, snowmelt sampling will then be performed once a week for the following three weeks or until the snowmelt period ceases. Snowmelt cessation will be determined by one of the following: a) ambient air temperatures drop below freezing during most of the day; or b) a storm/rain precipitation event occurs after the snowmelt event was initiated. Beginning March 15th of each year, snowmelt flows will most likely be continuous since ambient air temperatures will usually remain above freezing. From March 15th through May 31 of each year, snowmelt sampling events will be conducted daily for the first two days of a snowmelt event and then once a week thereafter until the spring runoff period has ended or the tributary station location shows no signs of daily flows for one week. Flow status will be evaluated in the afternoon, when ambient air temperatures are highest and flow potential is greatest.

[3] Two storm events to be sampled during October – March; 1 storm event to be sampled during April – September. For each storm event, eight samples across the hydrograph are to be collected.

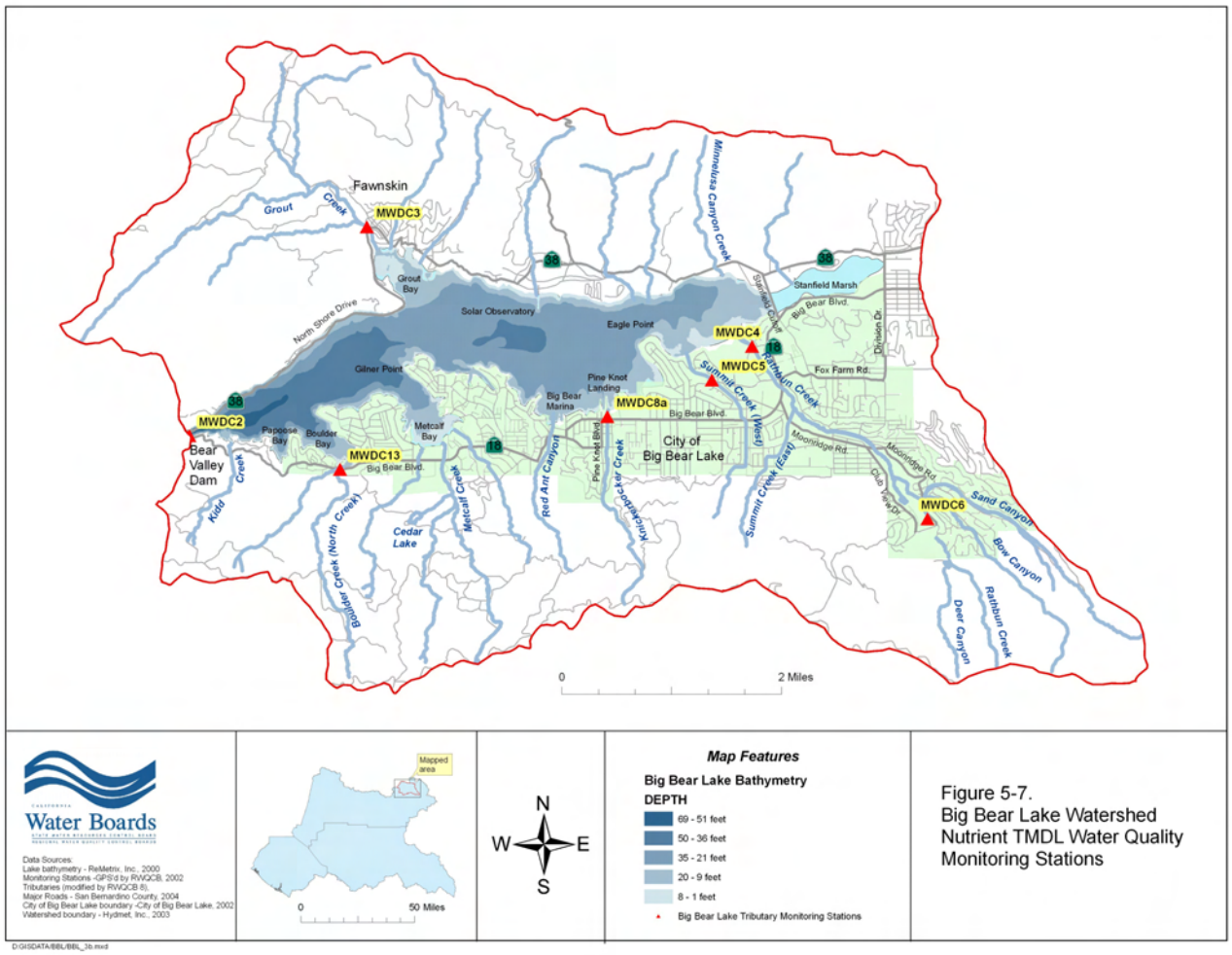


Figure 5-7 – Big Bear Lake Watershed Nutrient TMDL Water Quality Stations

4.2 Big Bear Lake: In-Lake Nutrient Monitoring Program

No later than November 30, 2007, the US Forest Service, the State of California, Department of Transportation (Caltrans), the County of San Bernardino, San Bernardino County Flood Control District, the City of Big Bear Lake, and Big Bear Mountain Resorts shall, as a group, submit to the Regional Board for approval a proposed Big Bear Lake nutrient monitoring program that will provide data necessary to review and update the Big Bear Lake Nutrient TMDL, and to develop TMDLs for other hydrological conditions. Data to be collected and analyzed shall address, at a minimum: (1) determination of compliance with phosphorus and chlorophyll *a* numeric targets; (2) determination of compliance with the existing total inorganic nitrogen (TIN) objective; and (3) refinement of the in-lake model for the purposes of TMDL review and development.

At a minimum, the proposed plan shall include the collection of samples at the stations specified in Table 5-9a-i and shown in Figure 5-8, at the specified frequency indicated in Table 5-9a-i. Modifications to the required sampling stations, sampling frequencies and constituents to be monitored (see below) will be considered upon request by the stakeholders, accompanied by a report that describes the rationale for the proposed changes and identifies recommended alternatives. With the exception of hardness, alkalinity, total organic carbon (TOC), dissolved organic carbon (DOC), and chlorophyll *a,* each sample to be analyzed shall be collected as a photic zone composite (from the surface to 2 times the secchi depth) and as a bottom discrete (0.5 meters off the surface bottom) sample. Hardness, alkalinity, TOC, DOC, and chlorophyll *a* shall be collected as photic zone composites. Dissolved oxygen, water temperature, turbidity, specific conductance, and pH shall be measured at 1-meter intervals from the surface to 0.5 meters from the bottom using a multi-parameter water quality meter. Water clarity shall be measured with a secchi disk.

At a minimum, in-lake samples must be analyzed for the following constituents:

- Specific conductance
- Water temperature
- Chlorophyll *a*
- Total nitrogen
- Nitrate +nitrite nitrogen
- Total phosphorus
- Total hardness
- Total dissolved phosphorus
- Dissolved organic carbon(DOC)
- Total dissolved nitrogen
- Dissolved oxygen
- Water clarity (secchi depth)
- Ammonia nitrogen
- Alkalinity
- Turbidity
- Ortho-phosphate (SRP)
- Total suspended solids (TSS)
- pH
- Total dissolved solids (TDS)
- Total organic carbon (TOC)

The monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL/WLAs/LAs and numeric targets shall be submitted by February 15 of each year.

Table 5-9a-i

Big Bear Lake Minimum Required Sampling Station Locations

Station Number	Station Description
MWDL1	Big Bear Lake – Dam
MWDL2	Big Bear Lake – Gilner Point
MWDL6	Big Bear Lake – Mid Lake Middle
MWDL9	Big Bear Lake – Stanfield Middle

Frequency of sampling at all stations: for all constituents except TOC and DOC, monthly from March – November; bi-weekly (i.e., every other week) from June 1 through October 31. TOC and DOC to be monitored four times per year (quarterly) from January through December.

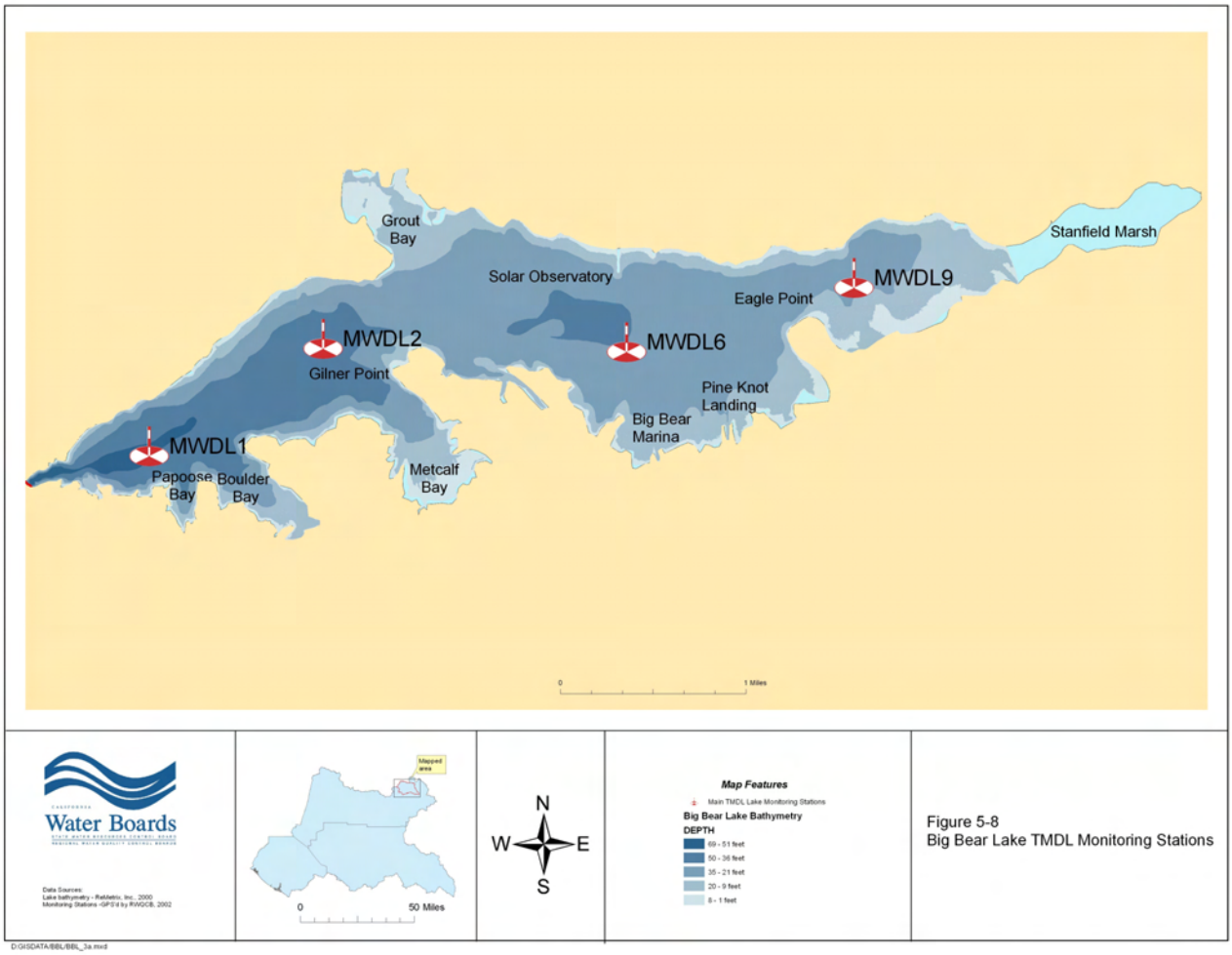


Figure 5-8 Big Bear Lake TMDL Monitoring Stations

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval. Any such individual or group monitoring plan is due no later than November 30, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report of data collected pursuant to approved individual/group plan(s), shall be submitted by February 15 of each year. The report shall summarize the data and evaluate compliance with the TMDL/WLAs/LAs and numeric targets.

Task 5: Atmospheric Deposition Determination

No later than August 31, 2008, the Regional Board, in coordination with local stakeholders, the South Coast Air Quality Management District and the California Air

Resources Board, shall develop a plan and schedule for quantifying atmospheric deposition of nutrients in the Big Bear Lake watershed.

Task 6: Big Bear Lake-Lake Management Plan

No later than August 31, 2008, the US Forest Service, the State of California, Department of Transportation (Caltrans), the County of San Bernardino, San Bernardino County Flood Control District, the City of Big Bear Lake, and Big Bear Mountain Resorts, shall, as a group, submit to the Regional Board for approval a proposed Lake Management Plan for Big Bear Lake. The purpose of the plan is to identify a coordinated and comprehensive strategy for management of the lake and surrounding watershed to address restoration and protection of the lake's beneficial uses.The plan shall include the following:

A) A proposed plan and schedule for updating the existing Big Bear Lake watershed nutrient model and the Big Bear Lake in-lake nutrient model. The plan and schedule must take into consideration additional data and information that are or will be generated from the required TMDL monitoring programs (Tasks 4.1 and 4.2, above).

B) A proposed plan and schedule for in-lake sediment nutrient reduction for Big Bear Lake. The proposed plan shall include an evaluation of the applicability of various in-lake treatment technologies to support development of a long-term strategy for control of nutrients from the sediment. The submittal shall also contain a proposed sediment nutrient monitoring program to evaluate the effectiveness of any strategies implemented.

C) The proposed plan shall include an evaluation of the applicability of various in-lake treatment technologies to control noxious and nuisance aquatic plants. The plan shall also include a description of the monitoring conducted and proposed to track aquatic plant diversity, coverage, and biomass. Data to be collected and analyzed shall address, at a minimum, determination of compliance with the numeric targets for macrophyte coverage and percentage of nuisance aquatic vascular plant species (see 1.A., above).

In addition, at a minimum, the proposed plan shall also address the following:

- The plan shall be based on identified and acceptable goals for lake capacity, biological resources and recreational opportunities. Acceptable goals shall be identified in coordination with the Regional Board and other responsible agencies, including the California Department of Fish and Game and the U.S. Fish and Wildlife Service.
- The plan shall include a proposed plan and schedule for the development of biocriteria for Big Bear Lake. (This is intended to complement Regional Board efforts to develop biocriteria and to signal the parties' commitment to participate substantively.)
- The plan must identify a scientifically defensible methodology for measuring changes in the capacity of the lake.

- The proposed plan shall identify recommended short and long-term strategies for control and management of sediment and dissolved and particulate nutrient inputs to the lake.
- The plan shall also integrate the beneficial use survey information required to be developed pursuant to the Regional Board's March 3, 2005, Clean Water Act Section 401 Water Quality Standards Certification for Big Bear Lake Nutrient/Sediment Remediation Project, City of Big Bear Lake, County of San Bernardino, California. The purpose of the beneficial use survey is to correlate beneficial uses of the lake with lake bottom contours. The survey is required to be conducted throughout the lake. The survey will determine the location and the quality of beneficial uses of the lake and the contours of the lake bottom where these uses occur. The survey is expected to be used in regulating future lake dredge projects to maximize the restoration and protection of the lake's beneficial uses.

The Big Bear Lake – Lake Management Plan shall be implemented upon Regional Board approval at a duly noticed public meeting. Once approved, the plan shall be reviewed and revised as necessary at least once every three years. The review and revision shall take into account assessments of the efficacy of control/management strategies implemented and relevant requirements of new or revised TMDLs for Big Bear Lake and its watershed. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL/WLAs/LAs and numeric targets shall be submitted by February 15 of each year.

In lieu of this coordinated plan, one or more of the parties identified above may submit a proposed individual or group Big Bear Lake – Lake Management Plan and schedule for approval by the Regional Board. Any such individual or group plan must conform to the requirements specified above and is due no later than August 31, 2008. An individual or group plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL/WLAs/LAs and numeric targets shall be submitted by February 15 of each year.

Task 7: Review and Revision of Big Bear Lake Water Quality Standards

By December 31, 2015, the Regional Board shall:

7.1 Review/revise as necessary the total inorganic nitrogen and total phosphorus numeric water quality objectives for Big Bear Lake. The Regional Board shall also consider the development of narrative or numeric objectives for other indicators of impairment (e.g., chlorophyll *a*, macrophyte coverage and species composition), in lieu of or in addition to review/revision of the numeric objectives for phosphorus and nitrogen.

7.2 Develop biocriteria for Big Bear Lake.

7.3 Develop a definition for natural background sources of nutrients (and other constituents) to Big Bear Lake and its tributaries.

Given budgetary constraints, completion of these tasks are likely to require substantive contributions from interested parties.

Task 8: Review of Big Bear Lake Tributary Data

No later than December 2008, the Regional Board shall review data collected on Rathbun Creek, Summit Creek and Grout Creek to determine whether beneficial uses of these tributaries are impaired by nutrients. If the Creeks are found to be impaired by nutrients, the Regional Board shall develop a TMDL development project plan and schedule. If these tributaries are found not to be impaired by nutrients, Regional Board shall schedule the delisting of the tributaries from the 303(d) list of impaired waters at the earliest opportunity.

Task 9: Development of TMDLs for Wet and/or Average Hydrological Conditions

No later than December 31, 2012, the Regional Board shall utilize additional water quality data and information collected pursuant to monitoring program requirements (Tasks 4 and 5) and model updates (Task 6A) to develop proposed nutrient TMDLs for Big Bear Lake for wet and/or average hydrological conditions. Completion of this task is contingent on the collection of requisite data for wet and/or average hydrological conditions.

Task 10: Review/Revision of the Big Bear Lake Nutrient TMDL for Dry Hydrological Conditions (TMDL "Re-opener")

The basis for the TMDL for Dry Hydrological Condtions, the implementation plan and schedule will be re-evaluated at least once every three years[2] to determine the need for modifying the allocations, numeric targets and TMDL. Regional Board staff will continue to review all data and information generated pursuant to the TMDL requirements on an ongoing basis. Based on results generated through the monitoring programs, special studies and/or modeling analyses, changes to the TMDL may be warranted. Such changes will be considered through the Basin Plan Amendment process.

The Regional Board is committed to the review of this TMDL every three years, or more frequently if warranted by these or other studies.

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[2] The three-year schedule is tied to the 3 year triennial review schedule.

Lake Elsinore/San Jacinto River Watershed (Amended by Resolution No. R8-2006-0023)

The Lake Elsinore/San Jacinto River Watershed is located in Riverside County and includes the following major waterbodies: Lake Hemet, San Jacinto River, Salt Creek, Canyon Lake and Lake Elsinore. The total drainage area of the San Jacinto River watershed is approximately 782 square miles. Over 90 percent of the watershed (735 square miles) drains into Canyon Lake. Lake Elsinore is the terminus of the San Jacinto River watershed. The local tributary area to Lake Elsinore, consisting of drainage from the Santa Ana Mountains and the City of Lake Elsinore, is 47 square miles.

Land use in the watershed includes open/forested, agricultural (including concentrated animal feeding operations such as dairies and chicken ranches, and irrigated cropland), and urban uses, including residential, industrial and commercial. Vacant/open space is being converted to residential uses as the population in the area expands. The municipalities in the watershed include the cities of San Jacinto, Hemet, Perris, Canyon Lake, Lake Elsinore and portions of Moreno Valley and Beaumont.

1. Lake Elsinore and Canyon Lake Nutrient Total Maximum Daily Load (TMDL)

Lake Elsinore and Canyon Lake are not attaining water quality standards due to excessive nutrients (nitrogen and phosphorus). Reports prepared by Regional Board staff describe the impact nutrient discharges have on the beneficial uses of Lake Elsinore and Canyon Lake [Ref. #26,27] Lake Elsinore was formed in a geologically active graben area and has been in existence for thousands of years. Due to the mediterranean climate and watershed hydrology, fluctuations in the level of Lake Elsinore have been extreme, with alternate periods of a dry lake bed and extreme flooding. These drought/flood cycles have a great impact on lake water quality. Fish kills and excessive algae blooms have been reported in Lake Elsinore since the early 20th century. As a result, in 1994, the Regional Board placed Lake Elsinore on the 303(d) list of impaired waters due to excessive levels of nutrients and organic enrichment/low dissolved oxygen.

Canyon Lake, located approximately 5 miles upstream of Lake Elsinore, was formed by the construction of Railroad Canyon Dam in 1928. Approximately 735 square miles of the 782 square mile San Jacinto River watershed drain to Canyon Lake. During most years, runoff from the watershed terminates at Canyon Lake without reaching Lake Elsinore, resulting in the buildup of nutrients in Canyon Lake. While Canyon Lake does not have as severe an eutrophication problem as Lake Elsinore, there have been periods of algal blooms and anecdotal reports of occasional fish kills. Accordingly, in

1998, the Regional Board added Canyon Lake to the 303(d) list of impaired waters due to excessive levels of nutrients.
A TMDL technical report prepared by Regional Board staff describes the nutrient related problems in Canyon Lake and Lake Elsinore in greater detail and discusses the technical basis for the TMDLs that follow [Ref. # 28].

A. Lake Elsinore and Canyon Lake Nutrient TMDL Numeric Targets

Numeric targets for Lake Elsinore and Canyon Lake are based on reference conditions when beneficial uses in the lakes were not significantly impacted by nutrients. Table 5-9n shows both "causal" and "response" interim and final numeric targets for both lakes. Causal targets are those for phosphorus and nitrogen. Phosphorus and nitrogen are the primary limiting nutrients in Lake Elsinore and Canyon Lake, respectively. However, under certain conditions, nitrogen may be limiting in Lake Elsinore and phosphorus may be limiting in Canyon Lake. Targets for both nutrients are therefore necessary . Reduction in nitrogen inputs will be necessary over the long-term and only final targets are specified. Response targets include chlorophyll *a* and dissolved oxygen. These targets are specified to assess water quality improvements in the lakes. Finally, ammonia targets are specified to prevent un-ionized ammonia toxicity to aquatic life.

Table 5-9n

Lake Elsinore and Canyon Lake Nutrient TMDL Numeric Targets*

Indicator	Lake Elsinore	Canyon Lake
Total P concentration (Final)	Annual average no greater than 0.1 mg/L; to be attained no later than 2020	Annual average no greater than 0.1 mg/L; to be attained no later than 2020
Total N concentration (Final)	Annual average no greater than 0.75 mg/L; to be attained no later than 2020	Annual average no greater than 0.75 mg/L; to be attained no later than 2020
Ammonia nitrogen concentration (Final) [Ref. #4]	Calculated concentrations to be attained no later than 2020 Acute: 1-hour average concentration of total ammonia nitrogen (mg/L) not to exceed, more than once every three years on the average, the CMC (acute criteria), where $CMC = 0.411/(1+10^{7.204-pH}) + 58.4/(1+10^{pH-7.204})$ Chronic: thirty-day average concentration of total ammonia nitrogen (mg/L) not to exceed, more than once every three years on the average, the CCC (chronic criteria) $CCC = (0.0577/(1+10^{7.688-pH}) + 2.487/(1+10^{pH-7.688})) * \min(2.85,1.45*10^{0.028(25-T)})$	Calculated concentrations to be attained no later than 2020 Acute: 1-hour average concentration of total ammonia nitrogen (mg/L) not to exceed, more than once every three years on the average, the CMC (acute criteria), where $CMC = 0.411/(1+10^{7.204-pH}) + 58.4/(1+10^{pH-7.204})$ Chronic: thirty-day average concentration of total ammonia nitrogen (mg/L) not to exceed, more than once every three years on the average, the CCC (chronic criteria) $CCC = (0.0577/(1+10^{7.688-pH}) + 2.487/(1+10^{pH-7.688})) * \min(2.85,1.45*10^{0.028(25-T)})$
Chlorophyll *a* concentration (Interim)	Summer average no greater than 40 ug/L; to be attained no later than 2015	Annual average no greater than 40 ug/L; to be attained no later than 2015
Chlorophyll *a* concentration (Final)	Summer average no greater than 25 ug/L; to be attained no later than 2020	Annual average no greater than 25 ug/L; to be attained no later than 2020
Dissolved oxygen concentration (Interim)	Depth average no less than 5 mg/L; to be attained no later than 2015	Minimum of 5 mg/L above thermocline; to be attained no later than 2015
Dissolved oxygen concentration (Final)	No less than 5 mg/L 1 meter above lake bottom; to be attained no later than 2020	Daily average in hypolimnion no less than 5 mg/L; to be attained no later than 2020.

* compliance with targets to be achieved as soon as possible, but no later than the date specified

B. Lake Elsinore and Canyon Lake Nutrient TMDLs, Wasteload Allocations, Load Allocations and Compliance Dates

As discussed in the technical TMDL report, nutrient loading to Canyon Lake and Lake Elsinore varies depending on the hydrologic conditions that occur in the San Jacinto watershed. As part of the TMDL analysis and development, three hydrologic scenarios

and the relative frequency of each of these conditions (based upon an 87 year record of flow data at the USGS Gauging station downstream of Canyon Lake), were identified as shown in Table 5-9o. The resulting TMDLs, wasteload allocations and load allocations are based on 10-year running flow weighted average nutrient loads, taking into account the frequency of the three hydrologic conditions and the nutrient loads associated with each of them. Phosphorus and nitrogen TMDLs for Canyon Lake and Lake Elsinore are shown in Table 5-9p. The TMDLs, expressed as 10–year running averages, will implement the numeric targets and thereby attain water quality standards,. Phosphorus and nitrogen wasteload allocations for point source discharges and load allocations for nonpoint source discharges, also expressed as 10-year running averages, are shown in Tables 5-9q and 5-9r. No TMDLs, wasteload allocations or load allocations are specified for chlorophyll a, dissolved oxygen or ammonia. Chlorophyll a and dissolved oxygen targets are intended to serve as measures of the effectiveness of phosphorus and nitrogen reductions implemented to meet TMDL requirements. Until ammonia transformations, and nitrogen dynamics in general, are better understood, no ammonia TMDLs, wasteload allocations or load allocations are specified.

Table 5-9o
San Jacinto River Hydrologic Conditions with Relative Flow Frequency at the USGS Gauging Station Downstream of Canyon Lake (Station No. 1170500)

Hydrologic Condition	Representative Water Year	Years of Hydrologic Condition	Relative Frequency (%)	Description
Wet	1998	14	16	Both Canyon Lake and Mystic Lake overflow; flow at the USGS gauging station 11070500 17,000 AF or greater
Moderate	1994	36	41	No Mystic Lake overflow; Canyon Lake overflowed; flow at the USGS gauging station 11070500 less than 17,000 AF and greater than 2,485 AF
Dry	2000	37	43	No overflows from Mystic Lake or Canyon Lake; flow at the USGS gauging station 11070500 371 AF or less

Table 5-9p
Nutrient TMDLs and Compliance Dates for Lake Elsinore and Canyon Lake

TMDL	Final Total Phosphorus TMDL (kg/yr)[a, b]	Final Total Nitrogen TMDL (kg/yr) [a, b]
Canyon Lake	8,691	37,735
Lake Elsinore	28,584	239,025

[a] Final compliance to be achieved as soon as possible, but no later than December 31, 2020.
[b] TMDL specified as 10-year running average.

Table 5-9q

Canyon Lake
Nitrogen and Phosphorus Wasteload and Load Allocations[a]

Canyon Lake Nutrient TMDL	Final Total Phosphorus Load Allocation (kg/yr)[b, c]	Final Total Nitrogen Load Allocation (kg/yr) [b, c]
TMDL	**8,691**	**37,735**
WLA	486	6,248
Supplemental water	48	366
Urban	306	3,974
CAFO	132	1,908
LA	**8,205**	**31,487**
Internal Sediment	4,625	13,549
Atmospheric Deposition	221	1,918
Agriculture	1,183	7,583
Open/Forest	2,037	3,587
Septic systems	139	4,850

[a] The TMDL allocations for Canyon Lake apply to those land uses located upstream of Canyon Lake.
[b] Final allocation compliance to be achieved as soon as possible, but no later than December 31, 2020.
[c] TMDL and allocations specified as 10-year running average.

Table 5-9r

Lake Elsinore
Nitrogen and Phosphorus Wasteload and Load Allocations[a]

Lake Elsinore Nutrient TMDL	Final Total Phosphorus Load Allocation (kg/yr)[b, c]	Final Total Nitrogen Load Allocation (kg/yr)[c, d]
TMDL	**28,584**	**239,025**
WLA	3,845	7,791
Supplemental water [d]	3,721	7,442
Urban	124	349
CAFO	0	0
LA	**21,969**	**210,461**
Internal Sediment	21,554	197,370
Atmospheric Deposition	108	11,702
Agriculture	60	213
Open/Forest	178	567
Septic systems	69	608
CL Watershed [e]	2,770	20,774

[a] The Lake Elsinore TMDL allocations for urban, agriculture open/forest, septic systems and CAFOs only apply to those land uses located downstream of Canyon Lake.
[b] Final allocation compliance to be achieved as soon as possible, but no later than December 31, 2020.
[c] TMDL and allocations specified as 10-year running average.
[d] WLA for supplemental water should met as soon as possible as a 5 year running average.
[e] Allocation for Canyon Lake overflows

The TMDL distributes the portions of the waterbody's assimilative capacity to various pollution sources so that the waterbody achieves its water quality standards. The Regional Board supports the trading of pollutant allocations among sources, where appropriate. Trading can take place between point/point, point/nonpoint, and nonpoint/nonpoint pollutant sources. Optimizing alternative point and nonpoint control strategies through allocation tradeoffs may be a cost-effective way to achieve pollution reduction benefits. (See Section E. TMDL Implementation, Task 11, below).

C. Margin of Safety

The Canyon Lake and Lake Elsinore Nutrient TMDLs include an implicit margin of safety (MOS) as follows:

- the derivation of numeric targets based on the 25th percentile of data for Lake Elsinore; Canyon Lake numeric targets to be consistent with the Lake Elsinore targets;
- the use of multiple numeric targets to measure attainment of beneficial uses and thereby assure TMDL efficacy;
- the use of conservative literature values in the absence of site-specific data for source loading rates in the watershed nutrient model;
- the use of conservative assumptions in modeling the response of Lake Elsinore and Canyon Lake to nutrient loads; and
- requiring load reductions to be accomplished during hydrological conditions when model results indicate, in some instances, that theoretical loads could be higher.

D. Seasonal Variations/Critical Conditions

The Canyon Lake and Lake Elsinore Nutrient TMDLs account for seasonal and annual variations in external and internal nutrient loading and associated impacts on beneficial uses by the use of a 10-year running average allocation approach. This 10-year running average approach addresses variation in hydrologic conditions (wet, moderate and dry) that can dramatically affect both nutrient loading and lake response.

Compliance with numeric targets will ensure water quality improvements that prevent excessive algae blooms and fish kills, particularly during the critical summer period when these problems are most likely to occur.

E. TMDL Implementation

Typically, under dry and moderate conditions, the internal nutrient loading drives the nutrient dynamics in both Canyon Lake and Lake Elsinore. However, it is the extreme (albeit infrequent) loading that occurs during wet conditions that provides the nutrients to the lakes that remain in the lakes as internal nutrient sources in subsequent years. Given the complexity of the San Jacinto River watershed hydrology, control of nutrients input to the lakes is needed for all hydrologic conditions. Collection of additional monitoring data is critical to developing long-term solutions for nutrient control. With that in mind, the submittal of plans and schedules to implement the TMDLs should take into consideration the need to develop and implement effective short-term solutions, as well as allow for the development of long-term solutions once additional data have been generated.

Implementation of tasks and schedules as specified in Table 5-9s is expected to achieve compliance with water quality standards. Each of these tasks is described below.

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Table 5-9s

Lake Elsinore and Canyon Lake Nutrient TMDL Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As soon As Possible but No Later Than
TMDL Phase 1		
Task 1	Establish New Waste Discharge Requirements	March 31, 2006
Task 2	Revise Existing Waste Discharge Permits	March 31, 2006
Task 3	Identify Agricultural Operators	October 31, 2005
Task 4	Nutrient Water Quality Monitoring Program 4.1 Watershed-wide Nutrient Monitoring Plan(s) 4.2 Lake Elsinore Nutrient Monitoring Plan(s) 4.3 Canyon Lake Nutrient Monitoring Plan(s)	• Initial plan/schedule due December 31, 2005 • Annual reports due August 15 • Revised plan/schedule due December 31, 2006
Task 5	Agricultural Discharges – Nutrient Management Plan	Plan/schedule due September 30, 2007
Task 6	On-site Disposal Systems (Septic Systems) Management Plan	Dependent on State Board approval of relevant regulations (see text).
Task 7	Urban Discharges 7.1 Revision of Drainage Area Management Plan (DAMP) 7.2 Revision of the Water Quality Management Plan (WQMP) 7.3 Update of the Caltrans Stormwater Management Plan and Regional Plan 7.4 Update of US Air Force, March Air Reserve Base SWPPP	Plan/schedule due: 7.1 August 1, 2006 7.2 August 1, 2006 7.3 April 1, 2006 7.4 Dependent on Task 3 results. See text.
Task 8	Forest Area – Review/Revision of Forest Service Management Plans	Plan/schedule due September 30, 2007
Task 9	Lake Elsinore In-Lake Sediment Nutrient Reduction Plan	Plan/schedule due March 31, 2007
Task 10	Canyon Lake In-Lake Sediment Treatment Evaluation	Plan/schedule due March 31, 2007
Task 11	Watershed and Canyon Lake and Lake Elsinore In-Lake Model Updates	Plan/schedule due March 31, 2007
Task 12	Pollutant Trading Plan	Plan/schedule due September 30, 2007
Task 13	Review and Revise Nutrient Water Quality Objectives	December 31, 2009
Task 14	Review of TMDL/WLA/LA	Once every 3 years to coincide with the Regional Board's triennial review

Task 1: Establish New Waste Discharge Requirements

On or before March 31, 2006, the Regional Board shall issue new waste discharge requirements (NPDES permit) to Elsinore Valley Municipal Water District for supplemental water discharges to Canyon Lake that incorporate the appropriate interim and final wasteload allocations, compliance schedule and monitoring program requirements.

Other proposed nutrient discharges will be addressed and permitted as appropriate.

Task 2: Review and/or Revise Existing Waste Discharge Requirements

There are five Waste Discharge Requirements (WDRs) issued by the Regional Board regulating discharge of various types of wastes in the San Jacinto watershed. On or before March 31, 2006, each of these WDRs shall be reviewed and revised as necessary to implement the Lake Elsinore and Canyon Lake Nutrient TMDLs, including the appropriate nitrogen and phosphorus interim and final wasteload allocations, compliance schedules and/or monitoring program requirements.

2.1 Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside and the Incorporated Cities of Riverside County within the Santa Ana Region, Areawide Urban Runoff, NPDES No. CAS 618033 (Regional Board Order No. R8-2002-0011). The current Order has provisions to address TMDL issues (see Task 7.1, below). In light of these provisions, revision of the Order may not be necessary to address TMDL requirements.

2.2 Watershed-Wide Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with New Developments in the San Jacinto Watershed, Order No. 01-34, NPDES No. CAG 618005. It is expected that this Order will be rescinded once the Regional Board/Executive Officer approves a Water Quality Management WQMP) under Order No. R8-2002-0011 (see 2.1, above and Task 7.2, below)

2.3 General Waste Discharge Requirements for Concentrated Animal Feeding Operations (Dairies and Related Facilities) within the Santa Ana Region, NPDES No. CAG018001 (Regional Board Order No. 99-11).

2.4 Waste Discharge and Producer/User Reclamation Requirements for the Elsinore Valley Municipal Water District, Regional Water Reclamation Facility Riverside County, Order No. 00-1, NPDES No. CA8000027. Revised permit specifications will take into consideration the Lake Elsinore Recycled Water Pilot Project findings.

2.5 Waste Discharge Requirements for Eastern Municipal Water District, Regional Water Reclamation System, Riverside County, Order No. 99-5, NPDES No. CA8000188[1]. Revised permit specifications will take into consideration the Lake Elsinore Recycled Water Pilot Project findings.

2.6 Waste Discharge Requirements for US Air Force, March Air Reserve Base, Storm Water Runoff, Riverside County, Order No. R8-2004-0033, NPDES CA 00111007

Task 3: Identify Agricultural Operators

On or before October 31, 2005, the Regional Board shall develop a list of all known agricultural operators in the San Jacinto watershed that will be responsible for implementing requirements of this TMDL. The Regional Board will send a notice to these operators informing them of their TMDL responsibility and alerting them to potential regulatory consequences of failure to comply.

Task 4: Monitoring

No later than December 31, 2005, the US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval monitoring program as required by Tasks 4.1, 4.2 and 4.3.

If modifications to the monitoring program are warranted, no later than December 31, 2006, the US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a revised proposed Watershed nutrient monitoring program (Task 4.1), Lake Elsinore monitoring program (Task 4.2) and Canyon Lake nutrient monitoring program (Task 4.3).

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval for the monitoring program specified in tasks 4.1, 4.2 and 4.3. Any such individual or

[1] Contingent on Eastern Municipal Water District discharge of recycled water to Lake Elsinore.

group monitoring plan is due no later than December 31, 2005. If needed, any individual or group revised monitoring plan is due no later than December 31, 2006.

4.1 Watershed-wide Nutrient Water Quality Monitoring Program

The US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a proposed watershed-wide nutrient monitoring program that will provide data necessary to review and update the Lake Elsinore and Canyon Lake Nutrient TMDL. Data to be collected and analyzed shall address, at a minimum: (1) determination of compliance with interim and/or final nitrogen and phosphorus allocations; and (2) determination of compliance with the nitrogen and phosphorus TMDL, including the WLAs and LAs.

At a minimum, the stations specified in Table 5-9t and shown in Figure 5-3, at the frequency specified in Table 5-9t, shall be considered for inclusion in the proposed monitoring plan. If one or more of these monitoring stations are not included, rationale shall be provided and proposed alternative monitoring locations shall be identified in the proposed monitoring plan. In addition to water quality samples, at a minimum, daily discharge (stream flow) determinations shall be made at all stations shown in Table 5-9t.

At a minimum, samples shall be analyzed for the following constituents:

- organic nitrogen
- nitrite nitrogen
- total phosphorus
- total hardness
- total suspended solids (TSS)
- biological oxygen demand (BOD)
- ammonia nitrogen
- nitrate nitrogen
- ortho-phosphate (SRP)
- total dissolved solids (TDS)
- turbidity
- chemical oxygen demand (COD)
- pH
- water temperature

The proposed monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the WLAs/LAs shall be submitted by August 15 of each year.

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval. This individual monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report of data collected pursuant to approved individual/group plan(s) shall be submitted by August 15 of each year. The report shall summarize the data and evaluate compliance with the WLAs/LAs.

It may be that implementation of these monitoring requirements will be required through the issuance of Water Code Section 13267 letters to the affected parties. The monitoring plan(s) will be considered by the Regional Board and implemented upon the Regional Board's approval.

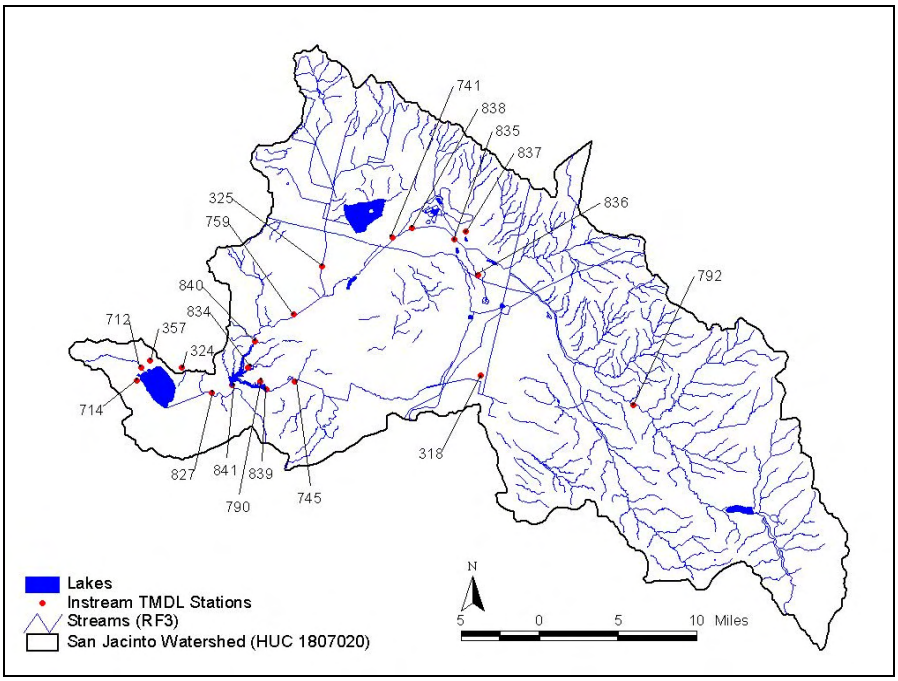


Figure 5-3 – San Jacinto River Watershed Nutrient TMDL Water Quality Stations Locations

Table 5-9t
Lake Elsinore and Canyon Lake Watershed
Minimum Required Sampling Station Locations

Station Number	Station Description
792	San Jacinto River @ Cranston Guard Station
318	Hemet Channel at Sanderson Ave.
745	Salt Creek @ Murrieta Road
759	San Jacinto River @ Goetz Rd
325	Perris Valley Storm Drain @ Nuevo Rd.
741	San Jacinto River @ Ramona Expressway
827	San Jacinto River upstream of Lake Elsinore
790	Fair Weather Dr. Storm Drain in Canyon Lake
357	4 Corners Storm Drain in Elsinore
714	Ortega Flood Channel in Elsinore
324	Lake Elsinore Outlet Channel
712	Leach Canyon Channel in Elsinore
834	Sierra Park Drain in Canyon Lake
835	Bridge Street and San Jacinto River
836	North Side of Ramona Expressway near Warren Road
837	Mystic Lake inflows
838	Mystic Lake outflows
841	Canyon Lake spillway

Frequency of sampling at all stations: dry season – none; wet season; minimum of 3 storms/year whenever possible and 8 samples across each storm hydrograph

4.2 Lake Elsinore: In-Lake Nutrient Monitoring Program

The US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a proposed Lake Elsinore nutrient monitoring program that will provide data necessary to review and update the Lake Elsinore Nutrient TMDL. Data to be collected and analyzed shall address, at a minimum: determination of compliance with interim and final nitrogen, phosphorus, chlorophyll *a*, and dissolved oxygen numeric targets. In addition, the monitoring program shall evaluate and determine the relationship between ammonia toxicity and the total nitrogen allocation to ensure that the total nitrogen allocation will prevent ammonia toxicity in Lake Elsinore.

At a minimum, the proposed plan shall include the collection of samples at the stations specified in Table 5-9u and shown in Figure 5-4, at the specified frequency indicated in Table 5-9u. With the exception of dissolved oxygen and water temperature, all samples to be analyzed shall be depth integrated.

The monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL shall be submitted by August 15 of each year.

Table 5-9u

Lake Elsinore Minimum Required Sampling Station Locations

Station Number	Station Description
LE 14	Lake Elsinore – inlet
LE 15	Lake Elsinore – four corners
LE 16	Lake Elsinore – mid-lake

Frequency of sampling at all stations: monthly October through May; bi-weekly June through September.

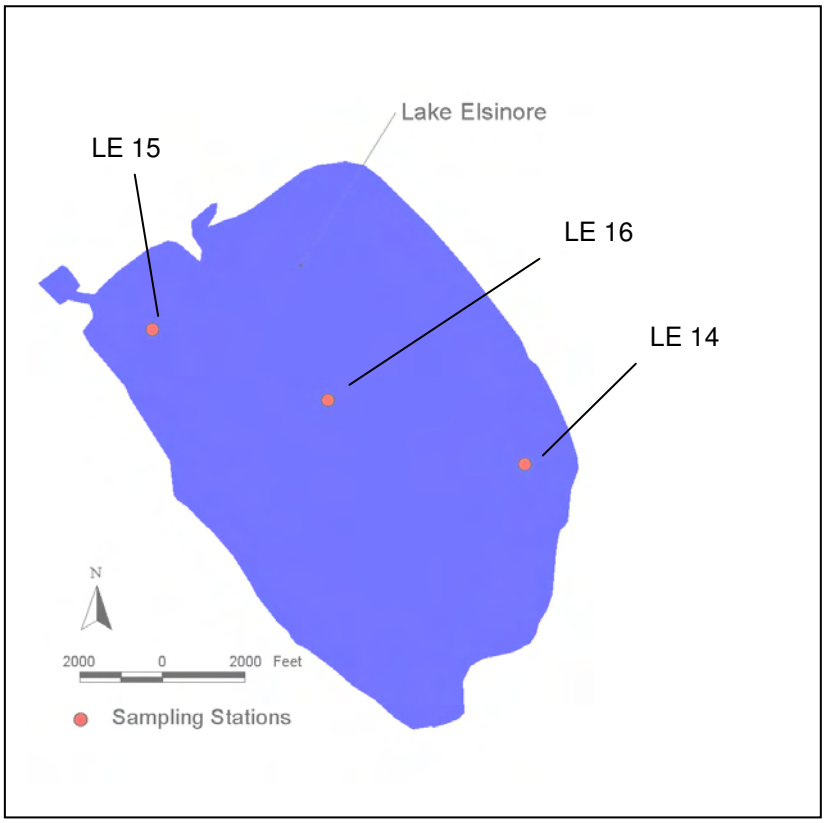


Figure 5-4 Lake Elsinore TMDL monitoring Stations

At a minimum, in-lake samples must be analyzed for the following constituents:

- specific conductance
- water temperature
- pH
- chlorophyll *a*
- organic nitrogen
- nitrite nitrogen
- organic phosphorus
- total hardness
- total dissolved solids (TDS)
- chemical oxygen demand (COD)
- dissolved oxygen
- water clarity (secchi depth)
- ammonia nitrogen
- nitrate nitrogen
- turbidity
- ortho-phosphate (SRP)
- total suspended solids (TSS)
- biological oxygen demand (BOD)

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval. This individual monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report of data collected pursuant to approved individual/group plan(s), shall be submitted by August 15 of each year. The report shall summarize the data and evaluate compliance with the numeric targets.

It may be that implementation of these requirements will be required through the issuance of Water Code Section 13267 letters to the affected parties. The monitoring plan(s) will be considered by the Regional Board and implemented upon the Regional Board's approval.

4.3 Canyon Lake Nutrient Monitoring Program

The US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a proposed Canyon Lake nutrient monitoring program that will provide data necessary to review and update the Canyon Lake Nutrient TMDL. Data to be collected and analyzed shall address, at a minimum: determination of compliance with interim and final nitrogen, phosphorus, chlorophyll *a*, and dissolved oxygen numeric targets. In addition, the monitoring program shall evaluate and determine the relationship between ammonia toxicity and the total nitrogen allocation to ensure that the total nitrogen allocation will prevent ammonia toxicity in Canyon Lake.

At a minimum, the proposed plan shall include the collection of samples at the stations specified in Table 5-9v and shown in Figure 5-5, at the specified frequency indicated in Table 5-9v. Discrete samples in Canyon Lake are to be collected in the epilimnion, hypolimnion and thermocline when and where appropriate.

The monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL shall be submitted by August 15 of each year.

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Table 5-9v

Canyon Lake Minimum Required Sampling Station Locations

Station Number	Station Description
CL 07	Canyon Lake – At the Dam
CL 08	Canyon Lake – North Channel
CL 09	Canyon Lake – Canyon Bay
CL 10	Canyon Lake – East Bay

Frequency of sampling at all stations: monthly October through May; bi-weekly June through September.

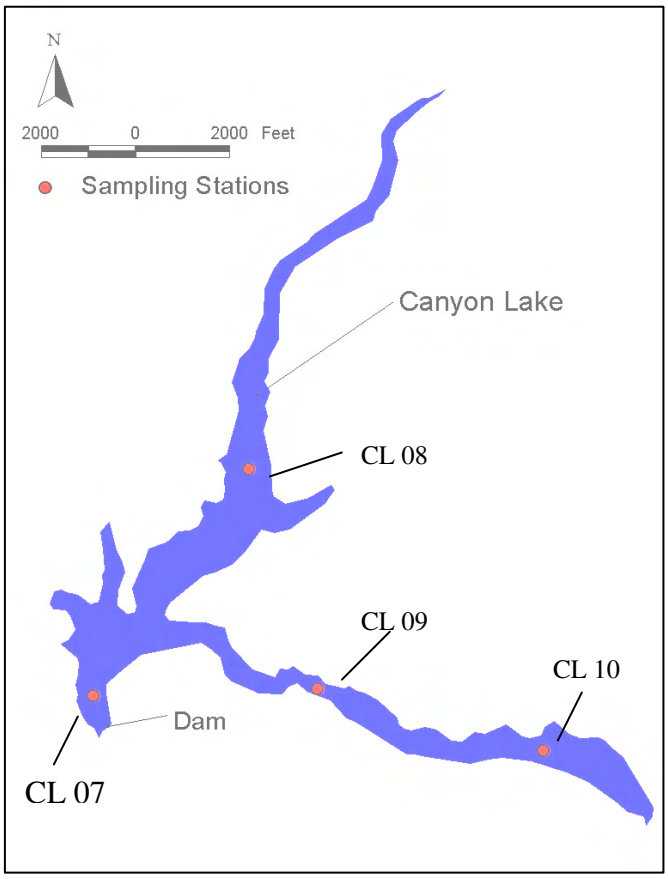


Figure 5-5 – Canyon Lake Nutrient TMDL Monitoring Station Locations

At a minimum, in-lake samples must be analyzed for the following constituents:

- specific conductance
- water temperature
- pH
- chlorophyll *a*
- organic nitrogen
- nitrite nitrogen
- organic phosphorus
- total hardness
- total dissolved solids (TDS)
- chemical oxygen demand (COD)
- dissolved oxygen
- water clarity (secchi depth)
- ammonia nitrogen
- nitrate nitrogen
- turbidity
- ortho-phosphate (SRP)
- total suspended solids (TSS)
- biological oxygen demand (BOD)

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval. This individual plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report of data collected pursuant to approved individual/group plan(s) shall be submitted by August 15 of each year. The report shall summarize the data and evaluate compliance with the numeric targets.

It may be that implementation of these requirements will be required through the issuance of Water Code Section 13267 letters to the affected parties. The monitoring plan(s) will be considered by the Regional Board and implemented upon the Regional Board's approval.

Task 5: Agricultural Activities

No later than September 30, 2007, the agricultural operators within the Lake Elsinore and Canyon Lake watershed (see Task 2), in cooperation with the Riverside County Farm Bureau, the UC Cooperative Extension, Western Riverside County Ag Coalition shall, as a group, submit a proposed Nutrient Management Plan (NMP). The Nutrient Management Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

In lieu of a coordinated plan, one or more of the parties identified above may submit a proposed individual or group Nutrient Management Plan to conduct the above studies for areas within their jurisdiction. Any such individual or group plan shall also be submitted for Regional Board approval no later than September 30, 2007. This Nutrient Management Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

At a minimum, the NMP shall include, plans and schedules for the following. In order to facilitate any needed update of the numeric targets and/or the TMDLs and/or agricultural LA, the proposed schedule shall take into consideration the Regional Board's triennial review schedule.

- implementation of nutrient controls, BMPs and reduction strategies designed to meet load allocations;
- evaluation of effectiveness of BMPs;
- development and implementation of compliance monitoring; and
- development and implementation of focused studies that will provide the following data and information
  - inventory of crops grown in the watershed;
  - amount of manure and/or fertilizer applied to each crop with corresponding nitrogen and phosphorus amounts; and
  - amount of nutrients discharged from croplands.

The Regional Board expects that the NMP will be submitted and implemented pursuant to these TMDL requirements. Where and when necessary to implement these requirements, the Regional Board will issue appropriate waste discharge requirements.

Compliance with the agricultural load allocation may be achieved through a Regional Board approved pollutant trading program.

Task 6: On-site Disposal Systems (Septic System) Management Plan

No later than 6 months after the effective date of an agreement between the County of Riverside and the Regional Board to implement regulations adopted pursuant to Water Code Sections 13290-13291.7, or if no such agreement is required or completed, within 12 months of the effective date of these regulations, the County of Riverside and the Cities of Perris, Moreno Valley and Murrieta shall, as a group, submit a Septic System Management Plan to identify and address nutrient discharges from septic systems within the San Jacinto watershed. The Septic System Management Plan shall implement regulations adopted by the State Water Resources Control Board pursuant to California Water Code Section 13290 – 13291.7.

At a minimum, the Septic System Management Plan shall include plans and schedules for the development and implementation of the following. In order to facilitate any needed update of the numeric targets and/or the TMDLs and septic system LA, the proposed schedule shall take into consideration the Regional Board's triennial review schedule.

- public education program;
- tracking system, including maintenance thereof;

- maintenance standards;
- enforcement provisions;
- monitoring program; and
- sanitary survey.

In lieu of a coordinated plan, one or more of the agencies with septic system oversight responsibilities may submit an individual or group Management Plan to develop the above Plan for areas within their jurisdiction. Any such individual or group plan shall also be submitted no later than March 31, 2006. This Septic System Management Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

Compliance with the septic systems load allocation may be achieved through a Regional Board approved pollutant trading program.

Task 7: Urban Discharges

Urban discharges, including stormwater runoff, are those discharges from the cities and unincorporated communities in the San Jacinto River watershed. These discharges are regulated under the Riverside County MS4 NPDES permit, the San Jacinto Watershed Construction Activities Storm Water permit, the State Board's General Permit for Storm Water Runoff from Construction Activities, and the State Board's General Permit for Storm Water Runoff from Industrial Activities. Nuisance and stormwater runoff from state highways and right of ways is regulated under the State of California, Department of Transportation (Caltrans) statewide general NPDES permit. Finally, nuisance and stormwater runoff from the March Air Reserve Base is also regulated through an NPDES permit.

7.1 Revision to the Drainage Area Management Plan (DAMP)

Provision XIII.B. of Order No. R8-2002-0011 (see 2.1, above) requires the permittees to revise their Drainage Area Management Plan (DAMP) to include TMDL requirements. By August 1, 2006, the permittees shall review and revise the DAMP and or WQMP (see 7.2 below) as necessary to address the requirements of these nutrient TMDLs. Further review and revision of the DAMP needed to address these TMDLs shall be completed in accordance with the requirements of Order No. R8-2002-0011 or amendments/updates thereto that are adopted by the Regional Board at a public hearing. The DAMP revisions shall include schedules for meeting the interim and final nutrient wasteload allocations. In order to facilitate any needed update of the numeric targets and/or the TMDLs and urban discharge WLA, the proposed schedule shall take into consideration the Regional Board's triennial review schedule. The revised DAMP/WQMP shall also include a proposal for 1) evaluating the effectiveness of BMPs and other control actions implemented and 2) evaluating compliance with the nutrient waste load allocation for urban runoff. The proposal must be implemented upon approval by the Regional Board after public notice and public hearing, or upon approval by the Executive Officer if no significant comments are received during the public notice period.

7.2 Revision of the Water Quality Management Plan (WQMP)

Provision VIII.B. of Order No. R8-2002-0011 (see 2.1, above) requires the permittees to develop and submit a WQMP by June 2004 for approval. On September 17, 2004, the Board approved a WQMP developed by the permittees. The approved WQMP includes source control BMPs, design BMPs and treatment control BMPs. Further revisions to the WQMP and/or the DAMP may be necessary to meet the WLA for urban runoff. By August 1, 2006, the permittees shall submit a revised WQMP and/or revised DAMP (see 7.1 above) that addresses the nutrient input from new developments and significant redevelopments to assure compliance with the nutrient wasteload allocations for urban runoff. The WQMP shall also address requirements currently in Order No. 01-34 (see 2.2, above). Once the WQMP is approved, Order No. 01-34 may be rescinded. Further review and revision of the WQMP necessary to assure that TMDL requirements are addressed shall be completed in accordance with the requirements of Order No. R8-2002-0011 or amendments/updates thereto that are adopted by the Regional Board at a public hearing.

7.3 Revision of the State of California, Department of Transportation (Caltrans) Stormwater Permit

Provision E.1 of Order No. 99-06-DWQ requires Caltrans to maintain and implement a Storm Water Management Plan (SWMP). Annual updates of the SWMP needed to maintain an effective program are required to be submitted to the State Water Resources Control Board.

Provision E.2 of Order No. 99-06-DWQ requires Caltrans to submit a Regional Workplan by April 1 of each year for the Executive Officer's approval. By April 1, 2006, Caltrans shall submit a Regional Workplan that includes plans and schedules for meeting the interim and final nutrient wasteload allocations, and provides a proposal for 1) evaluating the effectiveness of BMPs and other control actions implemented and 2) evaluating compliance with the nutrient waste load allocations for urban runoff , which includes runoff from Caltrans facilities. In order to facilitate any needed update of the numeric targets and/or the TMDLs and urban discharge WLA, the proposed schedule shall take into consideration the Regional Board's triennial review schedule. The proposal shall be implemented upon the Executive Officer's approval. Annual updates to the Regional Workplan shall include, as necessary, revised plans and schedules for meeting the interim and final nutrient wasteload allocations and revised proposals for evaluating the efficacy of control actions and compliance with the nutrient wasteload allocations.

7.4 Revision to the United States Air Force, March Air Reserve Base, Stormwater Permit

Order No. R8-2004-0033 specifies monitoring and reporting requirements for stormwater runoff from the US Air Force, March Air Reserve facility. Provision C.17

indicates that the order could be reopened to incorporate TMDL requirements. Provisions C.18.a and C.18.b require that March Air Reserve Base submit a report and revise the Stormwater Pollution Prevention Plan (SWPPP) to address any pollutants that may be causing or contributing to exceedances of water quality standards. Results from the TMDL nutrient monitoring program conducted pursuant to Task 3, shall serve as the basis for revision of the SWPPP and/or reopening the order.

Development of the Municipal permittee's WQMP and revisions to their DAMP, development of the Caltrans SWMP and Regional Workplan, and Revision to the March Air Reserve Base SWPPP, shall address the urban component of the nutrient TMDL.

Compliance with the urban wasteload allocation may be achieved through a Regional Board approved pollutant trading program.

Task 8: Forest Area –Identification of Forest Lands Management Practices

No later than September 30, 2007, the US Forest Service shall submit for approval a plan with a schedule for identification, development and implementation of Management Practices to reduce nutrient discharges emanating from the Cleveland National Forest and the San Bernardino National Forest . The Plan shall identify watershed-specific appropriate Best Management Practices (BMPs) that will be implemented to achieve the interim and final load allocations for forest/. The proposal shall include specific recommendations and a schedule for 1) evaluating the effectiveness of control actions implemented to reduce nutrient discharges from forest and 2) evaluating compliance with the nutrient load allocation from forest/open space. The revised watershed-specific Management Practices shall be implemented upon Regional Board approval at a duly noticed public meeting.

Compliance with the open space/forest load allocation may be achieved through a Regional Board approved pollutant trading program.

Task 9: Lake Elsinore Sediment Nutrient Reduction Plan

No later than March 31, 2007, the US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, the State of California, Department of Transportation (Caltrans), the State of California, Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a proposed plan and schedule for in-lake sediment nutrient reduction for Lake Elsinore. The proposed plan shall include an evaluation of the applicability of various in-lake treatment technologies to prevent the

release of nutrients from lake sediments to support development of a long-term strategy for control of nutrients from the sediment. The submittal shall also contain a proposed sediment nutrient monitoring program to evaluate the effectiveness of any strategies that are implemented. The Lake Elsinore In-lake Sediment Nutrient Reduction Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

In lieu of this coordinated plan, one or more of the parties identified above may submit a proposed individual or group In-lake Sediment Nutrient Reduction Plan for approval by the Regional Board. Any such individual or group Plan is due no later than March 31, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting.

Compliance with the Lake Elsinore Sediment Nutrient Reduction Plan requirement may be achieved through a Regional Board approved pollutant trading program.

Task 10: Canyon Lake Sediment Nutrient Treatment Evaluation Plan

No later than March 31, 2007, the US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a proposed plan and schedule for evaluating in-lake sediment nutrient treatment strategies for Canyon Lake. The proposed plan shall include an evaluation of the applicability of various in-lake treatment technologies to prevent the release of nutrients from lake sediments in order to develop a long-term strategy for control of nutrients from the sediment. The submittal shall also contain a proposed sediment nutrient monitoring program to evaluate the effectiveness of any strategies that are implemented. The Canyon Lake In-lake Sediment Nutrient Treatment Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

In lieu of this coordinated plan, one or more of the parties identified above may submit a proposed individual or group In-lake Sediment Nutrient Treatment Evaluation Plan for approval by the Regional Board. Any such individual or group Plan is due no later than March 31, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting.

Task 11: Update of Watershed and In-Lake Nutrient Models

No later than March 31, 2007, the US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities

of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators shall, as a group, submit to the Regional Board for approval a proposed plan and schedule for updating the existing Lake Elsinore/San Jacinto River Nutrient Watershed Model and the Canyon Lake and Lake Elsinore in-lake models. The plan and schedule must take into consideration additional data and information that are generated from the respective TMDL monitoring programs. In order to facilitate any needed update of the numeric targets and/or the TMDLs/WLAs/LAs, the proposed schedule shall take into consideration the Regional Board's triennial review schedule. The plan for updating the Watershed and In-lake Models shall be implemented upon Regional Board approval at a duly noticed public meeting.

In lieu of this coordinated plan, one or more of the parties identified above may submit a proposed individual or group plan for update of the Lake Elsinore/San Jacinto River Nutrient Watershed Model and the Canyon Lake and Lake Elsinore in-lake models. The plan and schedule must take into consideration additional data and information that are generated from the respective TMDL monitoring programs. In order to facilitate any needed update of the numeric targets and/or the TMDLs/WLAs/LAs, the proposed schedule shall take into consideration the Regional Board's triennial review schedule. Any such individual or group Plan is due no later than March 31, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting.

Task 12: Pollutant Trading Plan

No later than September 30, 2007, the US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators shall, as a group, submit to the Regional Board for approval a proposed Pollutant Trading Plan. At a minimum, this plan shall contain a plan, schedule and funding strategy for project implementation, an approach for tracking pollutant credits and a schedule for reporting status of implementation of the Pollutant Trading Plan to the Regional Board, The Pollutant Trading Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

In lieu of this coordinated plan, one or more of the parties identified above may submit a proposed individual or group Pollutant Trading Plan. Any such individual or group Plan is due no later than September 30, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting.

Task 13: Review and Revision of Water Quality Objectives

By December 31, 2009, the Regional Board shall review and revise as necessary the total inorganic nitrogen numeric water quality objectives for Lake Elsinore and Canyon Lake. In addition, the Regional Board shall evaluate the appropriateness of establishing total phosphorus and un-ionized ammonia numeric water quality objectives for both Lake Elsinore and Canyon Lake. Given budgetary constraints, completion of this task is likely to require substantive contributions from interested parties.

Task 14: Review/Revision of the Lake Elsinore/Canyon Lake Nutrient TMDL

The basis for the TMDLs and implementation schedule will be re-evaluated at least once every three years[2] to determine the need for modifying the load allocations, numeric targets and TMDLs. Regional Board staff will continue to review all data and information generated pursuant to the TMDL requirements on an ongoing basis. Based on results generated through the monitoring programs, special studies, modeling analysis, and/or special studies by one or more responsible parties, changes to the TMDL, including revisions to the numeric targets, may be warranted. Such changes would be considered through the Basin Plan Amendment process.

The Regional Board is committed to the review of this TMDL every three years, or more frequently if warranted by these or other studies

(End of Resolution No. R8-2004-0037)

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[2] The three-year schedule will coincide with the Regional Board's triennial review schedule.

Middle Santa Ana River Watershed (Amended by Resolution No. R8-2005-0001)

The Middle Santa Ana River Watershed covers approximately 488 square miles and lies largely in the southwestern corner of San Bernardino County, and the northwestern corner of Riverside County. A small part of Los Angeles County (Pomona/Claremont area) is also included. This watershed is comprised of three sub–watersheds. The first sub-watershed is the Chino Basin Watershed, which includes portions of San Bernardino County, Los Angeles County, and Riverside County. Surface drainage in this area is directed to Chino Creek and Cucamonga/Mill Creek and is generally southward, from the San Gabriel Mountains toward the Santa Ana River and the Prado Flood Control Basin. The second sub–watershed, the Riverside Watershed, is located in Riverside County. Surface drainage in this area is generally westward from the City of Riverside to the Santa Ana River, Reach 3. The third sub–watershed, the Temescal Canyon Watershed, is also located in Riverside County. Surface drainage in this area is generally northward to Temescal Creek.

Land uses in the Middle Santa Ana River watershed include urban, agriculture, and open space. Although originally developed as an agricultural area, the watershed is being steadily urbanized. Incorporated cities in the Middle Santa Ana River watershed include Pomona, Chino Hills, Upland, Montclair, Claremont, Ontario, Rancho Cucamonga, Rialto, Chino, Fontana, Norco, Corona, and Riverside. In addition, there are several pockets of urbanized unincorporated areas. The current population of the watershed, based upon 2000 census data, is approximately 1.4 million people. The principal remaining agricultural area in the watershed is the area formerly known as the Chino Dairy Preserve. This area is located in the south–central part of the Chino Basin watershed and contains approximately 300,000 cows, which generate the waste equivalent of more than two million people. Recently, the cities of Ontario and Chino annexed the San Bernardino County portions of this area. The remaining portion of the former preserve, which is in Riverside County, remains unincorporated. Open space areas include National Forest lands and State Parks lands.

Middle Santa Ana River Watershed Bacterial Indicator Total Maximum Daily Loads(TMDLs)

Middle Santa Ana River Watershed waterbodies listed on the Clean Water Act Section 303(d) list of impaired waters due to violations of REC1 fecal coliform bacteria objectives are shown in Table 5-9w.

Table 5-9w – Middle Santa Ana River Watershed Waterbodies on the 303(d) List Due to Bacterial Contamination

Waterbody, Reach
Santa Ana River, Reach 3
Chino Creek, Reach 1
Chino Creek, Reach 2
Mill Creek (Prado Area)
Cucamonga Creek, Reach 1
Prado Park Lake

During storm events, these waterbodies receive and transport runoff from urban, agricultural, and open space areas. During dry weather, these waterbodies receive and transport nuisance runoff, primarily from urban areas. Based on monitoring results, and observed waterbody conditions (fish kills and waste-laden stormflows), the Regional Board placed these waterbodies on the 303(d) list of impaired waters due to levels of bacterial indicators that exceeded established objectives for REC1 uses. The listings took place from 1988 to 1998.
A TMDL technical report prepared by Regional Board staff describes the bacterial indicator related problems in the Middle Santa Ana River Watershed waterbodies in greater detail and discusses the technical basis for the TMDLs that follow [Ref. # 30].

A. Middle Santa Ana River Watershed Bacterial Indicator TMDL Numeric Targets

Bacterial indicator numeric targets for the Middle Santa Ana River Watershed waterbodies shown in Table 5-9x are based, in part, on the fecal coliform water quality objective specified in Chapter 4 for the protection of body-contact recreation (REC1) in inland surface waters.

Recognizing that, in the future, *Escherichia coli* (*E. coli*) may be incorporated into the Basin Plan as new bacterial water quality objectives for REC1, alternative numeric targets for *E. coli* are also specified[1]. These targets are based on *E. coli* criteria recommended by the U.S. Environmental Protection Agency [Ref #31]. The *E. coli* levels were chosen to roughly correspond to the health risk level associated with the fecal coliform objectives.

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[1] USEPA is requiring the states to evaluate and incorporate more appropriate bacterial indicators, including *E. coli*, as water quality standards based on its Ambient Water Quality Criteria for Bacteria – 1986. The Regional Board is participating in the efforts of the Storm Water Quality Standards Task Force (SWQSTF), which is evaluating USEPA's bacterial indicator recommendations and REC1 beneficial use designations for waterbodies within the Santa Ana Region, including the Middle Santa Ana River watershed waterbodies. This numeric target and resulting TMDLs, WLAs and LAs will be adjusted accordingly when and if recommendations from the SWQSTF are incorporated into the Basin Plan.

The numeric targets for both bacterial indicators incorporate an explicit 10% margin of safety to address uncertainties recognized in the development of the TMDLs.

These numeric targets are specified as follows:

> **Fecal coliform: log mean less than 200 organisms/100 mL based on five or more samples per 30 day period, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30–day period**.
>
> ***E. coli*: log mean less than 126 organisms/100 mL based on five or more samples per 30–day period, and not more than 10% of the samples exceed 235 organisms/100mL for any 30 day period.**

The fecal coliform numeric targets (and other fecal coliform related provisions of these TMDLs) will become ineffective upon the replacement of the fecal coliform REC1 objectives in the Basin Plan with REC1 objectives based on *E. coli* Incorporation of new *E. coli* objectives will be considered through the Basin Planning process.

B. Middle Santa Ana River Watershed Bacterial Indicator TMDLs, Wasteload Allocations, Load Allocations and Compliance Dates

As discussed in the technical TMDL Report, the bacterial indicator TMDLs are expressed in terms of density since it is the number of organisms in a given volume of water (i.e., their density), and not their mass that is significant with respect to public health and the protection of beneficial uses. Similarly, the wasteload allocations for point source discharges (WLAs) and load allocations for nonpoint source discharges (LAs) are also based on density. The density–based WLAs and LAs do not add up to equal the TMDLs, since this is not scientifically valid. To achieve the density–based TMDLs, each WLA and LA must meet the density–based TMDL. As indicated in Table 5-9x, the TMDLs, WLAs and LAs also include a 10% margin of safety (see C., below) applied to the existing Basin Plan fecal coliform objective for REC1 for inland surface waters and to the alternative indicator *E. coli* criteria recommended by the U.S. Environmental Protection Agency. Again, the *E. coli* was chosen to correspond with the health risk level associated with the fecal coliform objectives.

WLAs are specified for urban discharges and discharges from Confined Animal Feeding Operations, including stormwater. LAs are specified for runoff from other types of agriculture and from natural sources (open space/undeveloped forest land). TMDLs, WLAs and LAs are specified for both dry weather discharges and wet weather discharges, with separate compliance schedules. An extended schedule for compliance with the wet weather TMDLs is specified in light of the expected increased difficulty in achieving compliance under these conditions.

Table 5-9x – Total Maximum Daily Loads, Waste Load Allocations, and Load Allocations for Bacterial Indicators in Middle Santa Ana River Waterbodies[a,b,c]

Indicator	Total Maximum Daily Loads for Bacterial Indicators	Waste Load Allocation for Bacterial Indicators in Urban Runoff including stormwater discharges	Waste Load Allocation for Bacterial Indicators in Confined Animal Feeding Operations discharges	Load Allocation for Bacterial Indicators in Agricultural runoff discharges	Load Allocation for Bacterial Indicators from Natural Sources
Dry Summer Conditions: April 1 through October 31, as soon as possible, but no later than December 31, 2015					
Fecal coliform	5–sample/30–day Logarithmic Mean less than 180 organisms/100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.
E. coli	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.
Wet Winter Conditions: November 1 through March 31, as soon as possible, but no later than December 31, 2025					
Fecal coliform	5–sample/30–day Logarithmic Mean less than 180 organisms/100ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30–day period.
E. coli	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.

[a] To be achieved as soon as possible, but no later than dates specified.
[b] TMDLs, WLAs and LAs, include a 10% Margin of Safety
[c] The fecal coliform TMDLs, WLAs, and LAs become ineffective upon the replacement of the REC1 fecal coliform objectives in the Basin Plan by approved REC1 objectives based on E. coli.

C. Margin of Safety

A 10% margin of safety is explicitly incorporated into the Bacterial Indicator TMDLs for the Middle Santa Ana River Watershed to account for unknowns, such as bacterial regrowth, bacteria dilution and organism die–off. As additional data on bacterial dynamics in the Middle Santa Ana River watershed are developed, the margin of safety can be adjusted accordingly.

D. Seasonal Variations/Critical Conditions

The Basin Plan REC1 fecal coliform objectives apply year-round; no distinctions based on climate or other conditions that may affect actual REC1 use are specified[2]. As shown in Table 5-9x, different compliance dates are specified for dry season discharges and wet season discharges. This ensures that dry season recreational beneficial uses are addressed on a priority basis. Additional time is allowed to address complexities associated with the control of wet weather discharges.

E. TMDL Implementation

Implementation is expected to result in compliance with the water quality objectives/numeric targets for fecal coliform and with the numeric targets for *E. coli*. The intent is to ensure protection of the REC1 beneficial uses of Middle Santa Ana River Watershed waterbodies. Collection of additional monitoring data is critical to developing long-term solutions for bacterial indicator control, as well as to consider whether changes to the TMDL are appropriate. With that in mind, the requirements for submittal of plans and schedules to implement the TMDLs take into consideration the need to develop and implement effective short-term solutions, as well as allow for the development of long-term solutions once additional data have been generated.

Implementation of tasks and schedules as specified in Table 5-9y is expected to achieve compliance with the TMDLs and, thereby, water quality standards. Each of these tasks is described below.

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[2] The SWQSTF may recommend changes to the REC1 objectives to reflect conditions, such as high flows, that affect REC1 use. Any such changes will be considered through the Basin Planning process

Table 5-9y – Middle Santa Ana River Watershed Bacterial Indicator TMDL Implementation Plan/Schedule Due Dates

Task	Description	Compliance Date-As soon As Possible but No Later Than
TMDL Phase 1		
Task 1	Revise Existing Waste Discharge Requirements	February 28, 2008
Task 2	Identify Agricultural Operators	June 30, 2007
Task 3	Develop Watershed-Wide Bacterial Indicator Water Quality Monitoring Program Implement Watershed-Wide Bacterial Indicator Water Quality Monitoring Program	November 30, 2007 Upon Regional Board approval Seasonal reports due May 31 and December 31 of each year Triennial reports due every 3 years beginning with first report due February 15, 2010.
Task 4	Urban Discharges 4.1 Develop and Implement Bacterial Indicator Urban Source Evaluation Plan 4.2 San Bernardino County MS4: Revise Municipal Storm Water Management Program (MSWMP) 4.3 Riverside County MS4: Revise Drainage Area Management Plan (DAMP) 4.4 San Bernardino County MS4: Revise Water Quality Management Plan (WQMP) 4.5 Riverside County MS4: Revise Water Quality Management Plan (WQMP)	Plan/schedule due 4.1 November 30, 2007 4.2 Dependent on Task 4.1 results (see text) 4.3 Dependent on Task 4.1 results (see text) 4.4 Dependent on Task 4.1 results (see text) 4.5 Dependent on Task 4.1 results (see text)
Task 5	Agricultural Discharges 5.1 Develop and Implement Bacterial Indicator Agricultural Source Evaluation Plan 5.2 Develop and Implement Bacterial Indicator Agricultural Source Management Plan	Plan/schedule due 5.1 November 30, 2007 5.2 Dependent on Task 5.1 results (see text)
Task 6	Review of TMDLs/WLAs/LAs	Once every 3 years to coincide with the Regional Board's triennial review, or more frequently as warranted

Task 1: Review and/or Revise Existing Waste Discharge Requirements

There are three Waste Discharge Requirements (WDRs) issued by the Regional Board regulating discharge of various types of wastes in the watershed. On or before **February 28, 2008**, each of these WDRs shall be reviewed and revised as necessary to implement the TMDLs, including the appropriate wasteload allocations, compliance schedules and/or monitoring program requirements.

1.1 Waste Discharge Requirements for the San Bernardino County Flood Control and Transportation District, the County of San Bernardino and the Incorporated Cities of San Bernardino County within the Santa Ana Region, Areawide Urban Runoff, NPDES No. CAS 618036 (Regional Board Order No. R8-2002-0012). The current Order has provisions to address TMDL issues (see Task 4, below). In light of these provisions, revision of the Order may not be necessary to address TMDL requirements.

1.2 Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside and the Incorporated Cities of Riverside County within the Santa Ana Region, Areawide Urban Runoff, NPDES No. CAS 618033 (Regional Board Order No. R8-2002-0011). The current Order has provisions to address TMDL issues (see Task 4, below). In light of these provisions, revision of the Order may not be necessary to address TMDL requirements.

1.3 General Waste Discharge Requirements for Concentrated Animal Feeding Operations (Dairies and Related Facilities) within the Santa Ana Region, NPDES No. CAG018001 (Regional Board Order No. 99-11). Updated waste discharge requirements for Concentrated Animal Feeding Operations are expected to be considered by the Regional Board in 2005. These requirements will include appropriate TMDL requirements.

Other waste discharge requirements may be reviewed and/or revised to address bacterial indicator discharges as appropriate.

Task 2: Identify Agricultural Operators

On or before **June 30, 2007**, the Regional Board shall develop a list of all known agricultural owners/operators in the Middle Santa Ana River watershed that will be responsible for implementing requirements of these TMDLs. The Regional Board will send a notice to these operators informing them of their TMDL responsibility and alerting them to the potential regulatory consequences of failure to comply.

To implement the agricultural load allocations for non-Concentrated Animal Feeding Operations, monitoring program requirements specified in Task 3 and the agricultural source evaluation studies (Task 5), the Regional Board may issue waste discharge requirements or a waiver of such waste discharge requirements that is conditioned on satisfactory compliance with these TMDL elements.

Task 3: Watershed-Wide Bacterial Indicator Water Quality Monitoring Program

No later than **November 30, 2007**, the US Forest Service, the County of San Bernardino, the County of Riverside, the cities of Ontario, Chino, Chino Hills, Montclair, Rancho Cucamonga, Upland, Rialto, Fontana, Norco, Riverside, and Corona, Pomona and Claremont and agricultural operators in the watershed, shall as a group, submit to the Regional Board for approval a proposed watershed-wide monitoring program that will provide data necessary to review and update the TMDLs. Data to be collected and analyzed shall address, at a minimum, determination of compliance with the TMDLs, WLAs and LAs.

At a minimum, the stations specified in Tables 5-9z and 5-9aa and shown in Figure 5-6, at the frequency specified in Tables 5-9z and 5-9aa, shall be considered for inclusion in the proposed monitoring plan. If one or more of these monitoring stations are not included, the rationale shall be provided and proposed alternative monitoring locations shall be identified in the proposed monitoring plan. The proposed monitoring plan shall also include a plan to compile streamflow measurements at existing USGS stream gauging stations.

At a minimum, samples shall be analyzed for the following constituents:

- Fecal Coliform
- Escherichia Coli (E. coli)
- Total Suspended Solids
- pH
- Temperature
- Electrical Conductivity
- Dissolved Oxygen
- Turbidity

The proposed monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. Seasonal reports summarizing and including copies of the data collected during the dry season and wet season monitoring periods shall be submitted by May 31 and December 31 of each year. In order to facilitate review and update of the numeric targets and/or the TMDLs, WLAs, LAs, a triennial report summarizing the data collected for the preceding 3 year period and evaluating compliance with the WLAs/LAs shall be submitted every three years, beginning with the first report due February 15, 2010.

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval. Any such individual or group monitoring plan is due no later than **November 30, 2007** and shall be implemented upon Regional Board approval at a duly noticed public

meeting. Seasonal reports summarizing and including copies of the data collected during the dry season and wet season monitoring periods shall be submitted by May 31 and December 31 of each year. In order to facilitate review and update of the numeric targets and/or the TMDLs, WLAs, LAs, a triennial report summarizing the data collected for the preceding 3 year period and evaluating compliance with the WLAs/LAs shall be submitted every three years, beginning with the first report due **February 15, 2010**.

It may be that implementation of these monitoring requirements will be required through the issuance of Water Code Section 13267 letters to the affected parties. The monitoring plan(s) will be considered by the Regional Board and shall be implemented upon the Regional Board's approval.

Table 5-9z – Watershed Minimum Required Weekly Sampling Station Locations

Station Number	**Station Description**
C1	Icehouse Canyon Creek
C2	Chino Creek at Schaeffer Avenue
C3	Prado Park Lake at lake outlet
C7	Chino Creek at Central Avenue
C8	Chino Creek at Prado Golf Course
M2	Cucamonga Creek at Regional Plant No. 1
M5	Mill Creek at Chino–Corona Road
S1	Santa Ana River at MWD Crossing
S3	Santa Ana River at Hamner Avenue
T1	Temescal Wash at Lincoln Avenue
TQ1	Tequesquite Arroyo at Palm Avenue

Frequency of sampling:
dry season: weekly
wet season: two 30-day sampling periods during which a minimum of 5 samples are to be collected (at least one sample weekly) and if possible, a minimum of 5 of those samples must be from storm events.

Table 5-9a-a --Additional Watershed Storm Event Sampling Locations

Station Number	Station Description
M3	Bon View Avenue @ Merrill Avenue
M4	Archibald Avenue @ Cloverdale Avenue
G1	Grove Channel @ Pine Avenue
E1	Euclid Avenue Channel @ Pine Avenue

Frequency of sampling: wet weather – one sample/storm event for 5 storm events/year; dry weather – none.

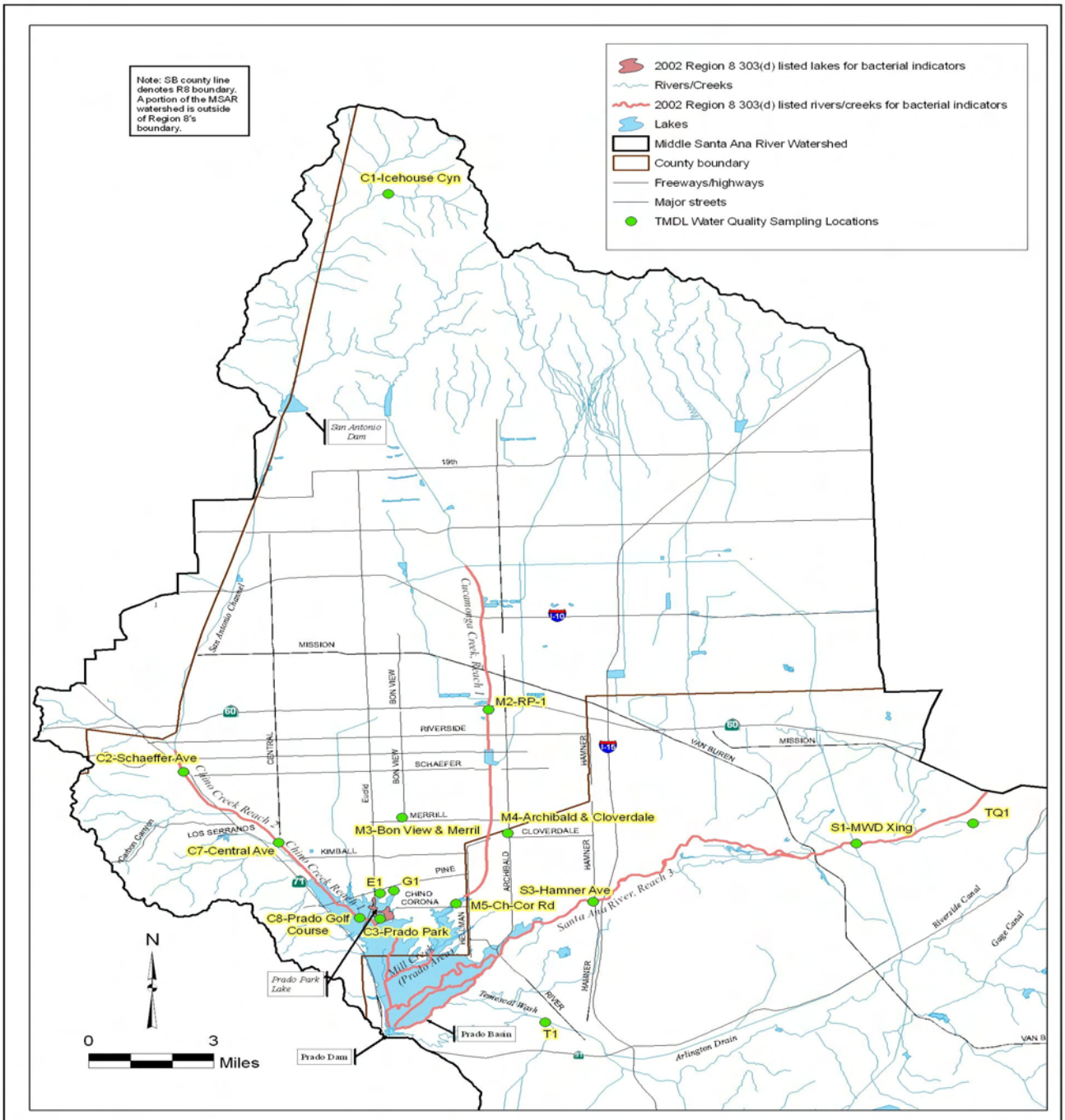
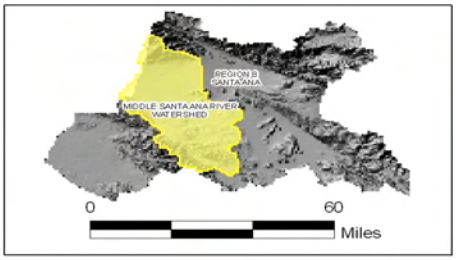


FIGURE 5-6: TMDL WATER QUALITY SAMPLING LOCATIONS



CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

Map created January 2005
Map created by: HB

Data Sources:
Middle Santa Ana River Watershed:
based on Calwater v. 2.2.1 boundaries -
CA Spatial Information Library (2004),
Santa Ana River reach designations,
and GDT streets (SWRCB, 2002)
County: CA Spatial Information Library (2004)
Rivers/creeks, and lakes:
CA Spatial Information Library (1998)
2002 303(d) listed water bodies:
SWRCB (2003)

File name: wbr_tmdl_2.mxd

Task 4: Urban Discharges

Phase I urban discharges, including stormwater runoff, include those from the cities and unincorporated communities in the Middle Santa Ana River Watershed. These discharges are regulated under the MS4 NPDES permits identified in Tasks 1.1 and 1.2 (Review and Revise Existing Waste Discharge Requirements), above. The requirements of these NPDES permits differ somewhat and therefore the TMDL implementation requirements that pertain to the permittees under each permit also vary slightly, as shown below[3].

4.1 Develop and Implement Bacterial Indicator Urban Source Evaluation Plans

On or before **November 30, 2007**, the County of San Bernardino, the County of Riverside, the cities of Ontario, Chino, Chino Hills, Montclair, Rancho Cucamonga, Upland, Rialto, Fontana, Norco, Riverside, and Corona, Pomona and Claremont shall develop a Bacterial Indicator Urban Source Evaluation Plan(s) (USEP). This plan shall include steps needed to identify specific activities, operations, and processes in urban areas that contribute bacterial indicators to Middle Santa Ana River Watershed waterbodies. The plan shall also include a proposed schedule for completion of each of the steps identified. The proposed schedules can include contingency provisions that reflect uncertainty concerning the schedule for completion of the SWQSTF work and/or other investigations that may affect the steps that are proposed. The USEP shall be implemented upon Regional Board approval at a duly noticed public meeting.

4.2 Revise the San Bernardino County Municipal Storm Water Management Program (MSWMP)

Provision XVI.3. of Order No. R8-2002-0012 (see 1.1, above) requires the permittees to revise their Municipal Storm Water Management Program (MSWMP) to include TMDL requirements. Revisions to the MSWMP may be necessary based on the results of Task 4.1, Basin Plan amendments to address recommendations of the SWQSTF, or other investigations. Because of uncertainties regarding the timing of completion of these studies, it is not feasible to identify an explicit date whereby the revision of the MSWMP is to be accomplished. Instead, the Executive Officer shall notify the permittees of the need to revise the MSWMP. Within 90 days of notification by the Executive Officer, the permittees shall submit for Regional Board approval, a plan and schedule to review and revise the MSWMP as necessary to incorporate measures to address the results of

[3] The San Bernardino MS4 permit requires the development and implementation of a Municipal Stormwater Management Program (MSWMP) to address stormwater discharges from existing urban activities. For the Riverside County MS4 permit, the Drainage Area Management Plan (DAMP) addresses stormwater discharges from existing urban activities.

the USEP and/or other studies. Further review and revision of the MSWMP needed to address these TMDLs shall be completed in accordance with the requirements of Order No. R8-2002-0012 or amendments thereto that are adopted by the Regional Board at a public hearing. The MSWMP revisions shall include schedules for meeting the bacterial indicator wasteload allocations based on the schedule established in these TMDLs. In order to facilitate any needed update of the numeric targets and/or the TMDLs and urban discharge WLAs, the proposed schedule shall take into consideration the Regional Board's triennial review schedule. The permittees shall also provide a proposal and schedule for 1) evaluating the effectiveness of BMPs and other control actions implemented and 2) evaluating compliance with the bacterial indicator waste load allocations for urban runoff. The plan and schedule to review the MSWMP must be implemented upon approval by the Regional Board after public notice and public hearing, or upon approval by the Executive Officer if no significant comments are received during the public notice period.

4.3 Revise the Riverside County Drainage Area Management Plan (DAMP)

Provision XIII.B. of Order No. R8-2002-0011 (see 1.2, above) requires the permittees to revise their Drainage Area Management Plan (DAMP) to include TMDL requirements. Revisions to the DAMP may be necessary based on the results of Task 4.1, Basin Plan amendments to address recommendations of the SWQSTF, or other investigations. Because of uncertainties regarding the timing of completion of these studies, it is not feasible to identify an explicit date whereby the revision of the DAMP is to be accomplished. Instead, the Executive Officer shall notify the permittees of the need to revise the DAMP. Within 90 days of notification by the Executive Officer, the permittees shall submit for Regional Board approval, a plan and schedule to review and revise the DAMP as necessary to incorporate measures to address the results of the USEP and/or other studies. Further review and revision of the DAMP needed to address these TMDLs shall be completed in accordance with the requirements of Order No. R8-2002-0011 or amendments/updates thereto that are adopted by the Regional Board at a public hearing. The DAMP revisions shall include schedules for meeting the bacterial indicator wasteload allocations based on the schedule established in these TMDLs. In order to facilitate review and update of the numeric targets and/or the TMDLs and urban discharge WLAs, the proposed schedule shall take into consideration the Regional Board's triennial review schedule. The revised DAMP shall also include a proposal and schedule for 1) evaluating the effectiveness of BMPs and other control actions implemented and 2) evaluating compliance with the bacterial indicator waste load allocations for urban runoff. The plan and schedule to review and revise the DAMP must be implemented upon approval by the Regional Board after public

notice and public hearing, or upon approval by the Executive Officer if no significant comments are received during the public notice period.

4.4 Revise the San Bernardino County Water Quality Management Plan (WQMP)

Provision XII.B. 1. of Order No. R8-2002-0012 requires the permittees to develop and submit a WQMP for new developments and significant redevelopments by January 2004 for the Executive Officer's approval. Revisions to the WQMP may be necessary based on the results of Task 4.1, Basin Plan amendments to address recommendations of the SWQSTF, or other investigations. Because of uncertainties regarding the timing of completion of these studies, it is not feasible to identify an explicit date whereby the revision of the WQMP is to be accomplished. Instead, the Executive Officer shall notify the permittees of the need to revise the WQMP. Within 90 days of notification by the Executive Officer, the permittees shall submit for Regional Board approval a plan and schedule to review and revise the WQMP that addresses the bacterial indicator input from new developments and significant redevelopments to assure compliance with the bacterial indicator wasteload allocations for urban runoff. Further review and revision of the WQMP necessary to address TMDL requirements, shall be completed in accordance with the requirements of Order No. R8-2002-0012 or amendments/updates thereto that are adopted by the Regional Board at a public hearing.

4.5 Revise the Riverside County Water Quality Management Plan (WQMP)

Provision VIII.B. of Order No. R8-2002-0011 (see 1.2, above) requires the permittees to develop and submit a WQMP for new developments and significant redevelopments by June 2004 for approval. On September 17, 2004, the Board approved a WQMP developed by the permittees. The approved WQMP includes source control BMPs, design BMPs and treatment control BMPs. Further revisions to the WQMP may be necessary to meet the WLA for urban runoff. Such revisions may be necessary based on the results of Task 4.1, Basin Plan amendments to address recommendations of the SWQSTF, or other investigations. Because of uncertainties regarding the timing of completion of these studies, it is not feasible to identify an explicit date whereby the revision of the WQMP is to be accomplished. Instead, the Executive Officer shall notify the permittees of the need to revise the WQMP. Within 90 days of notification by the Executive Officer, the permittees shall submit for Regional Board approval a plan and schedule for review and revision of the WQMP that addresses the bacterial indicator input from new developments and significant redevelopments to assure compliance with the bacterial indicator wasteload allocations for urban runoff. Further review and revision of the WQMP necessary to address TMDL requirements, shall be completed in accordance with the requirements of

Order No. R8-2002-0011 or amendments/updates thereto that are adopted by the Regional Board at a public hearing.

If the results of studies conducted pursuant to Tasks 3 and 4.1 above demonstrate that either the Phase II non-traditional small MS4 discharges covered under the statewide Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Systems (Order No. 2003-0005-DWQ) or industrial discharges from facilities covered by the statewide Industrial Stormwater General Permit (Order 97-03-DWQ) or any Regional Board individual industrial permit, are responsible, to a significant degree, for exceedances of the urban WLAs, the Regional Board will take the appropriate regulatory steps to address these discharges.

Task 5: Agricultural Discharges

Agricultural discharges include stormwater runoff, wastewater release and tailwater runoff from agricultural land uses. Tailwater runoff is irrigation water that runs off of agricultural land. Agricultural land uses include concentrated animal feeding operations and irrigated and dry-land farming in the Middle Santa Ana River Watershed. Concentrated animal feeding operations are regulated under WDRs (see Task 1.3,above); irrigated agriculture and dry-land farming are not currently regulated.

5.1 Develop and Implement Bacterial Indicator Agricultural Source Evaluation Plans

On or before **November 30, 2007**, concentrated animal feeding facility operators and agricultural operators in the Middle Santa Ana River Watershed shall develop and implement Bacterial Source Agricultural Source Evaluation Plans (AGSEP). These plans shall include steps needed to identify specific activities, operations, and processes in agricultural areas that contribute bacterial indicators to Middle Santa Ana River Watershed waterbodies. The plan shall also include a proposed schedule for completion of each of the steps identified. The proposed schedules can include contingency provisions that reflect uncertainty concerning the schedule for completion of the SWQSTF work and/or other investigations that may affect the steps that are proposed. The AGSEP shall be implemented upon Regional Board approval at a duly noticed public meeting.

The Regional Board expects that the AGSEP will be submitted and implemented pursuant to these TMDL requirements. Where and when necessary to implement these requirements, the Regional Board will utilize appropriate waste discharge requirements including those for concentrated animal feeding operations (see 1.3, above), or other Water Code authorities.

In lieu of a coordinated source evaluation plan, one or more of the parties identified above may submit a proposed individual or group AGSEP to conduct the above studies for areas within their jurisdiction. Any such individual or group plan shall also be submitted for Regional Board approval no later than. **November 30, 2007**. This AGSEP shall be implemented upon Regional Board approval at a duly noticed public meeting.

5.2 Develop and Implement a Bacterial Indicator Agricultural Source Management Plan

Based on the results of Task 5.1 or other studies conducted in the watershed, concentrated animal feeding operators and agricultural operators within the Middle Santa Ana River Watershed shall, as a group, submit a proposed Bacterial Indicator Agricultural Source Management Plan (BASMP). Because of uncertainties regarding the timing of completion of these studies and in recognition that readily identifiable steps may be taken to reduce bacterial discharges from agricultural lands, it is not feasible to identify an explicit date whereby the development and implementation of the BASMP is to be accomplished. Instead, the Executive Officer shall notify agricultural operators of the need to submit the proposed BASMP in whole or to submit plans and schedule to address a subset of tasks identified in the AGSEP. Within 90 days of notification by the Executive Officer, the proposed BASMP, or a subset thereof, shall be submitted. The BASMP, or subset thereof, shall be implemented upon Regional Board approval at a duly noticed public meeting. At a minimum, the BASMP shall include, plans and schedules for the following:

A. implementation of bacterial indicator controls, BMPs and reduction strategies designed to meet load allocations;
B. evaluation of effectiveness of BMPs; and
C. development and implementation of compliance monitoring program(s).

The Regional Board expects that the BASMP will be submitted and implemented pursuant to these TMDL requirements. Where and when necessary to implement these requirements, the Regional Board will utilize appropriate waste discharge requirements or other Water Code authorities.

In lieu of a coordinated plan, one or more of the parties identified above may submit a proposed individual or group BASMP to develop and implement the above plan for areas within their jurisdiction. Any such individual or group plan shall also be submitted for Regional Board approval. Because of uncertainties regarding the timing of completion of these studies and in recognition that readily identifiable steps may be taken to reduce bacterial discharges from agricultural lands, it is not feasible to identify an explicit date whereby the development and implementation of the BASMP is to be accomplished. Instead, the Executive Officer shall notify agricultural operators of the need to submit the proposed BASMP in whole or to submit plans and schedule to address a subset of tasks

identified in the AGSEP. Within 90 days of notification by the Executive Officer, the proposed BASMP, or a subset therefore, shall be submitted. This BASMP, or a subset thereof, shall be implemented upon Regional Board approval at a duly noticed public meeting.

Task 6: Review/Revision of the Bacterial Indicator TMDL (TMDL "Re-opener")

The basis for the TMDLs and implementation schedule will be re-evaluated at least once every three years[4] to determine the need for modifying the load and wasteload allocations, numeric targets and TMDLs. Regional Board staff will continue to review all data and information generated pursuant to the TMDL requirements on an ongoing basis. Based on results generated through the monitoring programs, special studies, modeling analysis, efforts of the Storm Water Quality Standards Task Force[5] and/or special studies by one or more responsible parties, changes to the TMDLs, including revisions to the numeric targets, WLAs and LAs, may be warranted. Such changes would be considered through the Basin Plan Amendment process.

The Regional Board is committed to the review of this TMDL every three years, or more frequently if warranted by the results of monitoring and/or other relevant studies

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[4] The three-year schedule will coincide with the Regional Board's triennial review schedule.

[5] Stakeholders formed the Storm Water Quality Standards Task Force (Task Force) in 2002 to support review and update of the bacterial quality objectives for REC1 waters and to review the REC1 designations themselves to assure their accuracy. Participants include representatives from the Santa Ana Watershed Project Authority, (SAWPA) flood control agencies from the 3 counties within the Santa Ana Region, POTW dischargers and stormwater staff from various municipalities in the watershed. Environmental groups, Regional Board staff and USEPA staff are also participants. SAWPA staff serve as facilitators for the Task Force.

BAY PROTECTION AND TOXIC CLEANUP PROGRAM

Legislation enacted in 1989 added Chapter 5.6, Bay Protection and Toxic Cleanup, to Division 7 of the California Water Code (Sections 13390-13396). These new sections require the State Board and Regional Boards to establish programs for the maximum protection of beneficial uses of bays and estuaries, focusing on water quality problems due to toxic substances. In part, the State Board was directed to formulate and adopt a water quality control plan for Enclosed Bays and Estuaries and a workplan for the development of sediment quality objectives. When setting waste discharge requirements, the Regional Boards must implement the water quality control plan and any sediment quality objectives which may be adopted by the State Board.

The Bay Protection and Toxic Cleanup Program (BPTCP) must also include plans to identify and remediate "toxic hot spots." These are areas in the enclosed bays, estuaries or adjacent waters where the contamination affects the interests of the state and "…where hazardous substances have accumulated in the water or sediment to levels which (1) may pose a substantial present or potential hazard to aquatic life, wildlife, fisheries or human health, or (2) may adversely affect the beneficial uses of bay, estuary or ocean waters as defined in water quality control plans, or (3) exceeds adopted water quality or sediment quality objectives." Criteria for the assessment and priority ranking of toxic hot spots are to be developed by the State Board in coordination with the California Department of Fish and Game and the California Office of Environmental Health Hazard Assessment (OEHHA). The ranking criteria will be used by the Regional Board to prioritize toxic hot spots based on the severity of the problem.

The BPTCP consists of both short- and long-term activities. The short-term activities include:

- Develop and maintain a program to identify toxic hot spots, plan for their cleanup or mitigation, and amend Water Quality Control Plans and policies to abate toxic hot spots;
- Develop and implement regional monitoring and assessment programs;
- Develop numeric sediment quality objectives;
- Develop and implement Toxic Hot Spot Cleanup Plans;
- Revise waste discharge requirements, if necessary, to conform to the Basin Plan; and
- Develop a comprehensive database containing information pertinent to describing and managing toxic hot spots.

Long-term activities of the BPTCP include:

- (Continue to) develop numeric sediment quality objectives;
- Develop and implement strategies to prevent the formation of new Toxic Hot Spots and to reduce the severity of effects from existing Toxic Hot Spots;
- Periodic review and update of a Water Quality Control Plan for enclosed bays and estuaries; and
- Maintain the comprehensive database.

The BPTCP is a comprehensive effort to regulate toxic pollutants in enclosed bays and estuaries and is not intended to be a monitoring program resembling the State Mussel Watch Program or the Toxic Substances Monitoring Program (see Chapter 6 for descriptions of these programs). The BPTCP program does, however, use the data from the State Mussel Watch Program and the Toxic Substances Monitoring Program to identify Toxic Hot Spots.

The Santa Ana Region, State Mussel Watch data and data provided by the Orange County Environmental Management Agency have been used to identify toxic hot spots in Newport Bay and Anaheim Bay/Huntington Harbour. Tables 5-10 and 5-11 lists the known toxic hot spots and potential toxic hot spots, respectively. The Regional Board, in coordination with the State Board and the California Department of Fish and Game are currently in the process of confirming these toxic hot spots and potential toxic hot spots using a battery of toxicity tests on both the water column and sediment. Once confirmed, the list of toxic hot spots and potential toxic hot spots will be ranked according to the ranking criteria. The priority ranking will be included in the regional Toxic Hot Spot Cleanup Plan(s) which will include identification of likely contaminant sources and appropriate remedial actions.

GROUNDWATER CONTAMINATION FROM VOLATILE ORGANIC COMPOUNDS

In 1984, the legislation passed Assembly Bill 1803 which instructed the California Department of Health Services, Office of Drinking Water, to develop and implement a program to require the sampling of public drinking water supply wells for volatile organic compounds. The Department was instructed to provide the results to the appropriate Regional Board. The initial data indicated extensive organic contamination of groundwater supplies throughout the state. As a result, in 1985, the State Board and the Regional Water Quality Control Boards initiated the Well Investigation Program. The intent of the Well Investigation Program was to identify the parties responsible for the organic contamination of municipal drinking water supply wells so that those parties could be made accountable for cleanup.

In order to identify the responsible parties, the Regional Board followed an intensive investigation program for each contaminated public drinking water supply well on a priority basis. This program included:

- Field reconnaissance for potential sources
- Record searches
- Hydrogeological assessments
- Questionnaires, meetings, and inspections
- Requests for preliminary soil investigations and follow-up soil and groundwater investigations of potential sources
- Requests for cleanup
- Enforcement actions, where appropriate

In the late1980's the Well Investigation Program was expanded to include private drinking water supply wells and agricultural and industrial supply wells that were located in areas where organic contamination posed a threat to public drinking water supply wells. In the late 1980's the Well Investigation Program represented the largest single funded program in the Region. However, due to severe budget cuts statewide, the Well Investigation Program was scaled down and eventually discontinued in 1992. Investigation and cleanup of sites identified by the Well Investigation Program are currently being overseen by the Regional Board's Spills, Leaks, Investigations, and Cleanup (SLIC) program.

Currently (1993), there are more than 300 water supply wells identified in the Region which contain organic compound contaminants. The loss of many drinking water supply wells and the threat of loss of additional existing drinking water supply wells due to organic compound contamination is a serious problem in several areas of the Region, most notably the Bunker Hill, Chino, and Santa Ana Forebay Groundwater Basins.

Perchloroethylene (PCE) and trichloroethylene (TCE) are the major contaminants in the Bunker Hill I Subbasin, which underlies northern San Bernardino. The City of San Bernardino lost 25% of its water supply in the early 1980s when 14 wells operated by the City were found to contain concentrations of perchloroethylene above the state and federal drinking water Maximum Contaminant Level (MCL). The Newmark Wellfield was placed on the federal Superfund list in 1988, and EPA assumed lead responsibility for investigating the extent of the contamination and identifying long-term cleanup measures. The Regional Board has identified no specific source of the contamination; potential sources include dry cleaners, airports, and a World War II munitions facility. Interim groundwater extraction and treatment at existing municipal supply wells using air stripping and granulated activated carbon (GAC) facilities funded by the California Department of Toxic Substances Control. These facilities have the capacity to treat 37.6 million gallons per day (MGD). The treated water is used as a potable water supply to replace the water lost as a result of the solvent contamination.

Table 5-10

Known Toxic Hot Spots
Santa Ana Region

Waterbody Name	Pollutants Involved
Lower Newport Bay	Cd, Pb, As, Se, Zn, Cu
Upper Newport Bay Ecological Reserve	Pb, Cu, Cd
Anaheim Bay	Cd, Cu, Pb, Cr
Huntington Harbour	Cd, Pb, Se, Cr, Cu
Bolsa Bay	Cr, Cu, Pb

Table 5-11

Potential Toxic Hot Spots
Santa Ana Region

Waterbody Name	Pollutants Involved
Lower Newport Bay	Chlorpyrifos, Dacthal, PCB, Chlorbenside, DDT, Lindane, Ronnel, Hexachlorbenzene, Chlordane, Endosulfan, Toxaphene, Aldrin, Heptachlorepoxide, Heptachlor
Upper Newport Bay Ecological Reserve	Dacthal,DDT,PCB,Endosulfan,Chlordane, Chlorpyrifos, Diazinon, Lindane, Heptachlorepoxide, Hexchlorbenzene
Anaheim Bay	Aldrin, Chlordane, Lindane, Chlorbenside, PCB, DDT, Chlorpyrifos, Endosulfan, Heptachlorepoxide, Hexachlorbenzene
Huntington Harbour	Aldrin, Chlorbenzide, DDT, Lindane, Endosulfan, Chlordane, Chlorpyrifos, Dieldrin, Endrin, Toxaphene, Heptachlorepoxide

The Bunker Hill II Subbasin underlying Redlands has been contaminated with TCE and dibromochloropropane (DBCP). It is estimated that the TCE plume covers an area of approximately twenty square miles. Twenty-six water supply wells are impacted by TCE or DBCP, including five municipal water supply wells where the concentration of TCE or DBCP exceeds the MCL. No responsible parties have been identified yet, however, potential sources for the TCE plume include an airport, commercial and industrial facilities, and a former rocket motor testing facility. DBCP, a soil fumigant, was used extensively by the citrus industry prior to the 1960's and the DBCP contamination in the Bunker Hill II Subbasin is believed to be the result of this past legal agricultural use. A 3.0 MGD GAC facility at the Rees Well, which began operation in 1989, treats the contaminated water and provides potable water for the City of Redlands. In addition, an 8.6 MGD wellhead treatment facility at the Texas Street Well Field began operation in 1993. The facility, which was funded by the State Board and the State Department of Toxics, removes TCE and DBCP and also provides potable water back to the City of Redlands.

Forty-four water supply wells in the Chino Basin, primarily the Chino II Subbasin, contain TCE and PCE. To date, only one facility, the former GE Flatiron Plant in Ontario, has been confirmed as a source of organic compound contamination that has impacted a water supply well. In 1993, prior to exploring final cleanup options, GE will be implementing plume containment and interim cleanup activities on the almost two mile long, one-half mile wide TCE plume. Other potential sources in the Chino Basin include the California Institute for Men, the Chino Airport, and the Ontario Airport. Potential responsible parties are in the process of conducting investigative studies.

Organic contamination from TCE, PCE, dichloroethylene (DCE), and dichloroethane (DCA) has been found in water supply wells in Orange County in the Santa Ana Forebay and Irvine Forebay Groundwater Basins. A wellhead treatment unit (air stripping) was installed at the City of Orange Well No. 13 and began operation in 1993. The Regional Board staff oversees investigations at numerous sites in the Forebay area where past discharges of industrial solvents have occurred. Twenty-one of these sites have been identified to date as sources of volatile organic compounds in groundwater. Site investigations are being conducted to identify the extent of contamination and to clean up the effects of the discharges.

The Regional Board has been successful in identifying many sites throughout the region where volatile organic compounds have impacted groundwater. However, with the exception of the former GE Flatiron facility in the Chino Basin, there has been no other direct cause-and-effect relationship drawn between a contaminated drinking water supply well and a specific source. In most cases, records of compounds used at facilities have not been maintained and information regarding past disposal practices is not available, making it difficult to pinpoint specific

sources. In addition, considering that most sources of the volatile organic compounds found in water supply wells are probably industrial discharges that may have occurred as long as 30 years ago, and considering the complex factors affecting the fate of volatile organic compounds in soil and groundwater and the changes in groundwater flow patterns from pumping, etc., it is difficult to backtrack contamination from water supply wells to specific sites which may be sources of local groundwater contamination.

DEPARTMENT OF DEFENSE FACILITIES

There are six major Departments of Defense (DoD) facilities in the Santa Ana Region, two of which are currently scheduled for closure. Table 5-12 identifies these facilities and the water quality problems of each.

Significant groundwater contamination has been detected at a number of these facilities. Contamination is severe enough at three of these facilities to have them placed on EPA's National Priorities List (NPL) for remediation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, commonly referred to as Superfund).

For these three National Priorities List facilities (Norton and March Air Force Bases and Marine Corps Air Station – El Toro), the EPA is the lead environmental regulatory agency for oversight of investigation and cleanup. CERCLA requires EPA to consider applicable or relevant and appropriate state laws and regulations when establishing cleanup. CERCLA requires EPA to consider applicable or relevant and appropriate state laws and regulations when establishing cleanup standards for remedial activities. To ensure that the state's concerns are properly addressed, two Cal/EPA agencies, the Regional Board and the Department of Toxic Substances Control (DTSC) also perform a significant oversight role in the investigations and cleanup of these facilities.

The US EPA, DoD, and the state agencies have signed Federal Facility Agreements (FFA) for each of the National Priorities List facilities. The intent of the FFA is to ensure that: (1) environmental impacts are investigated; (2) remedial actions are defined; (3) procedural framework or schedules are established; (4) cooperation among agencies is facilitated; (5) adequate assessment it performed; and (6) compromise is reached.

The US EPA is not involved in the investigation and cleanup of DoD facilities that are not on the National Priorities List (Marine Corps Air Station-Tustin, Naval Weapons Station-Seal Beach, and Armed Forces Reserve Center-Los Alamitos). However, many of these facilities have significant contamination. In these cases, the two state agencies enter info Federal Facility Site Remediation Agreements

Table 5-12

Summary of Water Quality Problems from
Department of Defense (DoD) Facilities

Santa Ana Region

DoD Facility	Receiving Water Affected	Water Quality Problem Identified to Date
Norton Air Force Base [1]	Bunker Hill I Subbasin	trichloroethylene (TCE) plume landfills; Superfund listing
March Air Force Base	Perris North Subbasin	trichloroethylene (TCE) plume; fuel plume; landfills; Superfund listing
Marine Corps Air Station - El Toro	Irvine Forebay Subbasin	trichloroethylene (TCE) plume; fuel plume; benzene plume; landfills; proposed Superfund Listing
Marine Corps Air Station - Tustin [1]	Irvine Pressure Subbasin	volatile organic compound (VOC) plume; fuel plume
Naval Weapons Station - Seal Beach	Santa Ana Pressure Subbasin	fuel plume; landfills
Armed Forces Reserve Center - Los Alamitos	Santa Ana Pressure Subbasin	fuel plume; landfills

[1] Facilities which are scheduled to be closed. These bases are given high cleanup priority.

(FFSRAs) with DoD. FFSRAs are very similar to the above-mentioned Federal Facility Agreements, with the exception that US EPA is not a party. The Regional Board and Department of Toxic Substances Control have already entered into an agreement with DoD for the Naval Weapons station – Seal Beach and are near the end of negotiations on Federal Facility Site Remediation Agreements for Marine Corps Air Station – Tustin.

The Department of Toxic Substances Control has been identified as the "lead" state agency and the Regional Board as "support" agency for all of the above facilities. A Memorandum of Understanding has been signed by the State Board and Department of Toxic Substances Control which describes the roles of each agency. The Regional Board's oversight role is with regard to the investigation and cleanup of water resources that have been impacted or are threatened by waste discharges from the facilities. The Regional Board's responsibility also extends to source areas (landfills, contaminated soil, etc.) that currently, or may in the future, pose a threat to water quality. DTSC's role is to address all other environmental aspects including health risk assessment, air emissions, community relations, etc.

The State Board and DTSC have entered into a two-year cooperative agreement with the Department of Defense for cleanup and oversight reimbursement. All work performed by the State agencies with regard tot he investigation and cleanup of environmental problems at these facilities is fully reimbursed by DoD.

LEAKING UNDERGROUND STORAGE TANKS

The Underground Storage Tank Program was enacted in 1983 and took effect January 1,1984. The authority for the program is found in the Health and Safety Code, Division 20, Chapter 6.7, and the regulations for the program are found in the California Code of Regulations, Title 23, Division 3, Chapter 16. In 1988, the State Board and the Department of Health Services (now Department of Toxic Substances Control) issued the Leaking Underground Fuel Tank (LUFT) field manual which prescribes specific methods for evaluating the effects of underground storage tank leaks.

There are approximately 2,000 known cases of leaking underground storage tanks (USTs) in the Region. Approximately 35% of the cases involve instances where only soil contamination is present, 35% are cases which have been closed. The majority of the releases from these underground storage tanks are gasoline and the constituent of most concern is benzene, a known carcinogen. A smaller percentage of the underground storage tank releases involve chlorinated industrial solvents, which are suspected carcinogens. As anticipated, the majority of the sites where these releases have occurred are automotive service stations, with tanks from industrial facilities contributing a smaller, but significant, minority. To date, these groundwater impacts have not grown to the point where drinking water supply wells have been affected. The Regional Board maintains and regularly updates the

Leaking Underground Storage Tank Information Systems (LUSTIS) database, which identifies all known underground storage tank release sites in the Region.

Implementation of the underground storage tank program includes direct Regional Board oversight of leaking underground storage tank cleanups. It also involves coordination of oversight activities with local agencies under contract with the State Board through the Local Oversight Program. Local agencies have the authority, pursuant to Section 25297.1 of the Health and Safety Code, to act on behalf of the Regional Board in requiring investigations and cleanup of underground storage tanks cases. The local agencies also implement the permitting, construction, inspections, and monitoring portion of the Underground Tank Regulations. The Orange County Health Care Agency, the County of Riverside Department of Environmental Health, and the County of San Bernardino Department of Environmental Health Services handle approximately 80% of the active cases in the Region, with several cities managing their own programs. The local agencies' caseload consists of soil cases, while the Regional Board maintains responsibility for the highly complex cases where groundwater has been affected.

As specified in State Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges," the investigation and cleanup of releases from underground storage tanks involves several steps including: (1) preliminary site assessment and workplan submittal; (2) pollution characterization; (3) remediation; and (4) post-remedial action monitoring. Soil contamination cleanup levels are determined on a case-by-case basis and are established to prevent continued leaching from the affected soils at levels which may cause the underlying groundwater to exceed applicable water quality objectives. Cleanup goals for groundwater contamination cases are generally established at drinking water standards (Maximum Contaminant Levels or Action Levels).

In most areas of the Santa Ana Region, the uppermost portions of the aquifers are considered to be in hydrologic contact with deeper portions which are currently utilized for drinking water supplies. In the pressure zone of Orange County, the uppermost sediments are fine-grained materials which are unable to sustain sufficient pumping rates. However, due to the large volume of water held within these sediments, the close vertical proximity of these areas to underlying pumping locations, and the existence of pathways for movement into the deeper aquifers, the shallow waters in this area are considered as contributing to the sources of drinking water in Orange County. Leaking underground storage tank cleanups must be conducted accordingly.

Underground Storage Tank Cleanup Fund

The State Board, Division of Clean Water Programs, administers the Underground Storage Tank Cleanup Fund. The Cleanup Fund can be used as a mechanism to satisfy federal financial responsibility requirements and pay for corrective action and

third party liability costs resulting from a leaking petroleum UST. The Fund can also pay for direct cleanup (by local agency or Regional Board) of UST sites requiring emergency and prompt action on abandoned or recalcitrant sites. This fund, collected by the Board of Equalization, is supported by a 0.6 cents per gallon fee for gasoline. The Fund has been established to provide reimbursement to tank owners or operators for the costs of cleanup of the effects of unauthorized releases of petroleum. Up to one million dollars ($1,000,000) can be provided per site, with the first ten thousand dollars ($10,000) being provided by the claimant. With certain qualifications, expenditures made to remediate an unauthorized petroleum release since January 1, 1988 can be reimbursed and letters of credit can be issued for the funding of ongoing remediation activities.

The Regional Boards provide technical support to both the applicants who file claims against the UST Cleanup Fund and the State Board staff who verify the corrective action work covered by the claim. For claims that involve future work, the Regional Boards will oversee site investigation and cleanup on cases for which they are the lead agency.

ABOVEGROUND STORAGE TANKS

The state's Aboveground Petroleum Storage Act was enacted in 1989 and amended in 1991. The Act became effective on January 1, 1990 (Health and Safety Code, Chapter 6.67).

The purpose of the regulation is to protect the public and the environment from the serious threat of millions of gallons of petroleum-derived chemicals stored in thousands of aboveground storage tanks. The Regional Board inspects aboveground petroleum storage tanks, which were used to store crude oil and its fractions after January 1991, to assure compliance with a federally required site-specific Spill Prevention, Control, and Countermeasure Plan. In the event that a release occurs which threatens surface or groundwater, the Act allows the state to recover reasonable costs incurred in the oversight and regulation of cleanup.

Storage statements are required from facilities with aboveground storage tanks, describing the nature and size of their tanks. Filing fees are required which are intended to fund inspections, training, and research. Approximately 280 aboveground storage tanks are under regulation in the Santa Ana Region as of May 1, 1993. Their number is continually expanding as aboveground storage tanks are increasingly used to replace underground storage tanks. A list of aboveground storage tanks is available from the Regional Board.

DISPOSAL OF HAZARDOUS AND NONHAZARDOUS WASTE TO LAND

Hazardous and nonhazardous waste disposal can, if not properly managed and regulated, diminish the beneficial uses of the waters of the Region. These are typically losses to groundwater beneficial uses, but in some cases, surface waters

can also be affected by disposal operations or contaminated soil in the vadose zone.

The Regional Board regulates landfills receiving municipal solid wastes and surface impoundments receiving hazardous or designated liquid wastes. Although these sites are closely regulated and monitored, some water quality problems have been detected and are being addressed. There are no hazardous solid waste disposal facilities currently operating in the Region.

The laws and regulations governing the disposal of both hazardous and nonhazardous solid wastes have been revised and strengthened in the last few years. The US EPA, DTSC, the State Board, and Regional Water Quality Control Boards are implementing the federal RCRA regulations. Described below is Regional Board implementation of RCRA and the following state programs: Title 23, Division 3, Chapter 15; Toxic Pits Cleanup Act; and Solid Waste Assessment Tests.

Resource Conservation and Recovery Act

The state implements the Resource Conservation and Recovery Act (RCRA) in California through the Department of Toxic Substances Control (DTSC) and the Regional Boards. Chapter 15 monitoring requirements have been implemented through the adoption of waste discharge requirements for both hazardous and nonhazardous waste disposal sites covered by RCRA. The discharge requirements for both hazardous waste sites are part of a state RCRA permit issued by the DTSC. The Regional Board and the Integrated Waste Management Board issues state permits for nonhazardous waste disposal sites.

The Resource Conservation and Recovery Act of 1976 provided for the development of federal and state programs for the regulation of land disposal of waste materials and the recovery of materials and energy resources from the waste stream. The Act regulates not only the generation, transportation, treatment, storage, and disposal of hazardous wastes, but also nonhazardous solid waste disposal facilities. In addition, the 1976 Act called for phasing out the use of open dumps for disposal of solid wastes in favor of sanitary landfills.

The most recent and significant amendments to RCRA (1984) impose a variety of new, more stringent requirements both on hazardous and nonhazardous waste generators, transporters, and the owners/operators of treatment, storage, and disposal facilities within the existing regulated community. Significant provisions include bans on land disposal of certain wastes, restrictions and placement of liquids in landfills, and establishment of minimum technological requirements for landfills and surface impoundments.

Subtitle C of RCRA contains requirements related to the identification and listing of hazardous wastes and standards applicable to generators, transporters, owners, and owner/operators of treatment, storage, and disposal facilities. Primary

responsibility for the implementation of Subtitle C rests with the DTSC, with Regional Board participation as necessary.

Subtitle D of RCRA establishes a framework for federal, state, and local government cooperation in controlling the management of nonhazardous solid waste. The federal role in this arrangement is to establish the overall regulatory direction by providing minimum nationwide standards for protecting human health and the environment and to provide technical assistance to states for planning and developing their own environmentally sound waste management practices. The actual planning and direct implementation of solid waste programs under subtitle D. however, remain largely state and local functions, and the act authorizes states to devise programs to deal with state-specific conditions and needs. US EPA approved the state's proposed solid waste management program, and delegated authority to the state to implement the program in October 1993. In September 1993, the Santa Ana Region adopted a blanket Waste Discharge Requirement (WDR) amendment for all affected landfills in the Region which implements both Subtitle D and Chapter 15.

Subtitle D includes the Criteria for Classification of Solid Waste Disposal Facilities and Practices (40 CFR Part 257). The criteria establish minimum national performance standards necessary to ensure that "no reasonable probability of adverse effects on health or the environment" will result from solid waste disposal facilities or practices.

Part 258 of subtitle D establishes minimum national criteria for municipal solid waste landfills including those used for sludge disposal and disposal of nonhazardous waste combustion and ash. Part 258 also sets forth minimum federal criteria for municipal solid waste landfills, including location restrictions, facility design and operating criteria, groundwater monitoring requirements, financial assurance requirements, and closure and post-closure care requirements. The rule establishes differing requirements for existing and new units, (*e.g.,* existing units are not required to remove wastes in order to install liners).

Subtitle D provides that states with approved water management programs that wish to run the program will have flexibility in implementing these criteria. A municipal solid waste landfill unit that does not meet the Part 258 Criteria will be considered to be engaged in the practice of "open dumping" in violation of Section 4005 of RCRA. Municipal solid waste landfill units that receive sewage sludge and fail to satisfy those criteria will be deemed to be in violation of Sections 309 and 405(e) of the Clean Water Act.

Title 23, Division 3, Chapter 15

The most important regulation used by the Regional Board in regulating hazardous and nonhazardous waste disposal is California Code of Regulations (CCR) Title 23,

Division 3, Chapter 15 (formerly Subchapter 15). These regulations include very specific siting, construction, monitoring, and closure requirements for all existing and new waste disposal facilities. Chapter 15 also contains a provision requiring landfill operators to provide assurances of financial responsibility for initiating and completing closure, and for corrective action to address all known or reasonably foreseeable releases from their waste management units. Detailed technical criteria are provided for establishing water quality protection standards, monitoring programs, and corrective action programs for releases from waste management units. Chapter 15 defines waste types to include hazardous wastes (Class I), designated wastes (Class II), and nonhazardous solid wastes (Class III). Hazardous wastes are defined by DTSC in Title 22 of the California Code of Regulations.

Designated wastes are defined as:

1. Those non hazardous wastes consisting of or containing contaminants which under ambient landfill conditions could be released at concentrations that could cause water quality degradation, or

2. Those wastes which are hazardous according to Title 22, but are not considered hazardous by the federal RCRA definition and have been granted a variance from hazardous waste management requirements by DTSC.

Nonhazardous solid wastes are those normally associated with domestic and commercial activities. The California Integrated Waste Management Board (CIWMB) is the lead agency responsible for non-water quality-related issues relating to nonhazardous waste management in California (Division 7 of Title 14 of the CCR). CIWMB has the overall responsibility for landfill operations and ensuring that nonhazardous wastes are collected and disposed of in a manner which protects public health and safety as well as the environment. Inert wastes can be regulated by the Regional Board if necessary to protect water quality.

The Regional Board has regulated nonhazardous municipal solid waste facilities (Class III) since the mid-1970s. Many of the smaller, older facilities have closed, and waste is now typically disposed of at larger regional nonhazardous solid waste facilities. The Regional Board is responsible for the review and revision of waste discharge requirements for both active and inactive permitted sites to assure consistency with the current regulations. These responsibilities include the upgrading of groundwater monitoring systems to identify violations of water quality protection standards, and the establishment of corrective action programs where standards are violated.

A significant task faced by the Regional Board in implementing Chapter 15 at nonhazardous solid waste facilities is defining what constitutes designated wastes. Many wastes which are not hazardous still contain constituents of water quality concern that can become mobile in a nonhazardous solid waste facility, and can

produce leachates that could pose a threat to beneficial uses of the water of the state. The criteria for determining whether a nonhazardous waste is a designated waste are based on water quality objectives for waters located in the vicinity of the sites, the containment features of the solid waste facility, and the solubility/mobility of the waste constituents. To assist in the identification of designated waste criteria, the Regional Board will rely on a methodology acceptable to the Executive Officer and other relevant technical data.

Landfill Expansion

A steady increase in the rate of solid waste generation in the region is causing landfills to reach capacity sooner than expected. This situation has man it necessary not only to plan for the closure of some existing landfills, but also to anticipate the need for expansions of existing facilities and the construction of new ones. To minimize the problems associated with the rapid filling and subsequent closure of solid waste disposal facilities, the Regional Board supports efforts to reduce the volume of wastes disposed of at landfills. To reduce the potential for household hazardous wastes entering municipal landfills, the Regional Board also supports public education and household hazardous waste disposal and recycling programs.

The Regional Board conducts many other activities related to the disposal of wastes. Examples of these activities are review and approval of site design plans and construction oversight for new or expanding facilities, implementation of strict drainage and erosion control measures at landfills, soil and groundwater cleanup activities at contaminated disposal sites, and closure/post-closure plan review, approval, and closure construction oversight.

Toxics Pits Cleanup Act

The Toxics Pits Cleanup Act of 1984 (TPCA) required that all impoundments containing liquid hazardous wastes or free liquids containing hazardous waste must be either reconstructed with a liner/leachate collection system or be dried out by July 1, 1988. These facilities must also be closed by removing all contaminants or by capping to contain any residual soil contamination. In 1985, there were 11 sites in the Santa Ana Region with ponds subject to TPCA. As of 1993, 2 facilities are continuing to operate following upgrades to meet TPCA requirements, eight facilities have closed, and discharges at the remaining facility have ceased. Lead responsibility for closure of the remaining site has been assumed by the DTSC, with participation continued by the Regional Board.

Solid Waste Assessment Tests

Section 13273 was added to the Water Code in 1985, requiring all operations of both active and inactive nonhazardous landfills to complete a Solid Waste

Assessment Test (SWAT). The purpose of the SWAT is to determine whether hazardous or toxic substances above regulatory thresholds, or any other constituents which may threaten water quality, are migrating from the facility. Funding for the SWAT program is provided by the California Integrated Waste Management Board.

There were 159 sites identified in the region subject to this program. Pursuant to a list adopted by the State Board, 150 sites statewide were to be evaluated each year through the year 2001 (approximately 10 sites per year in the Santa Ana Region). These sites were according to their perceived threat to water quality. Active sites, those overlying high quality aquifers, and those already known to have adversely impacted groundwater were replaced in the highest ranks (Rank 1 through 4).

Program funding was eliminated in 1991, but was restored in 1992 for a period of three years to allow for review of reports for sites in Ranks 1 through 5 only. These reviews must be completed by 1995. Although landfill site evaluations, which seek to identify adverse impacts to both surface and groundwater quality, can be required pursuant to Chapter 15 whenever necessary, it appears that the SWAT program will be fully funded after 1995. A revised SWAT ranking list will be created prior to implementation of the program for Rank 6 and beyond.

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CHAPTER 6

MONITORING AND ASSESSMENT

INTRODUCTION

The effectiveness of a water quality control program cannot be judged without information supplied by a comprehensive monitoring and assessment program. The State Board, the Regional Boards, and other federal, state, and local agencies monitor water quality throughout the state. Coordination among the agencies is essential to identify data gaps and supplement monitoring efforts as necessary. The results of these programs show where water quality problems exist now and where problems can be expected based on quality trends over time. Monitoring activities in the Santa Ana Region were described as part of Chapter 5 (Plan Assessment) in the 1983 Basin Plan. In this Plan, the discussion has been expanded and updated. New programs have been added and obsolete programs have been deleted. Additionally, this chapter provides a brief description of the databases being used to store and analyze the data collected. This chapter also describes the periodic water quality assessments which are conducted on a statewide basis, using the monitoring data collected.

STATE MONITORING PROGRAMS

The State Board is the lead agency for statewide monitoring activities. The State Board coordinates extensively with the California Departments of Fish and Game, Water Resources, Health Services, and various federal agencies in its monitoring activities. The objectives of the State's surveillance and monitoring program are as follows:

- To measure the achievement of water quality goals and objectives specified in the Basin Plan;
- To measure the specific effects of water quality changes on established beneficial uses;
- To measure background conditions of water quality;
- To determine long-term trends in water quality;
- To locate and identify sources of water pollution that pose an acute, accumulative, and/or chronic threat to the environment;
- To provide information needed to compare receiving water quality to mass emissions of pollutants from waste discharge;

- To provide data for determining compliance with permit conditions and to support enforcement actions, if necessary;

- To measure wasteloads discharged to receiving waters and to identify their effects, and in water quality limited segments, to prepare wasteload allocations necessary to achieve water quality control;

- To provide data needed to carry on the continuing planning process;

- To measure the effects of water rights decisions on water quality and to guide the State Board in its responsibility to regulate unappropriated water for the control of quality;

- To provide a clearinghouse for the collection and dissemination of water quality data gathered by other agencies and private parties cooperating in the program; and

- To prepare reports on water quality conditions as required by federal and state regulations and other users requesting water quality data.

The monitoring program provides for collection and analysis of samples and the reporting of water quality data. It includes laboratory support and quality assurance, storage of data for rapid and systematic retrieval and preparation of reports and data summaries. Most important is the interpretation and evaluation of data leading to recommendations for action.

The State monitoring program focuses on fresh and marine surface waters. The goal of the State monitoring program is to provide an overall, continuing assessment of water quality in the state. Historically, conventional parameter such as minerals, nutrients, and dissolved oxygen were considered to be the most important parameters. More recently, toxic substances have received increasing attention in federal and state water pollution control activities. The State and Regional Boards are intensifying their efforts to investigate the presence of toxic substances in surface waters and the effects of these substances on aquatic biota.

The State program consists of a toxicity monitoring program, the Inland Surface Waters Toxicity Testing Program, and two toxic substances monitoring programs – the Toxic Substances Monitoring Program and State Mussel Watch.

Inland Surface Waters Toxicity Testing Program

The goal of this program, which was initiated in 1990, is to evaluate the extent, magnitude, nature and sources of toxicity in the waters of the State. Emphasis is on those waters where toxicity is associated with unregulated discharges such as runoff from agriculture, mining or urban areas. As part of this program, a toxicity

testing facility at the University of California, Davis was established to conduct State and Regional Board studies. The Regional Board performs the sampling of the waterbodies in the region and supplies the testing facility with the samples.

The toxicity test measures the combined effects of toxics in the water and is not used to separate and identify a specific toxic substance. Toxicity is determined by using water column examples from a waterbody under lab conditions. Appropriate test organisms are observed for their response by using growth, reproduction or mortality as indicators. Two types of toxicity tests are used, acute and chronic, which involve measuring responses in different life stages of the test organisms.

In the Santa Ana Region, Big Bear Lake and its tributaries, the Anaheim and Newport Bay Watersheds, Lake Elsinore, and some creeks have been sampled for toxicity as part of this program.

Toxic Substances Monitoring Program

The Toxic Substances Monitoring Program (TSMP) was initiated in 1976 by the State Board. The TSMP was organized to provide a uniform statewide approach to the detection and evaluation of the occurrence of toxic substances in fresh and estuarine waters of the state. The TSMP primarily targets waterbodies with known or suspected impaired water quality and is not intended to give an overall water quality assessment. Data obtained from the TSMP is used to focus the Regional Board's attention on those waterbodies impacted by toxic pollutants. Special TSMP or other studies are then conducted to investigate the source(s) of the pollutants. The State Board has contracted with the Department of Fish and Game to perform the monitoring and chemical analyses associated with this program.

The presence of toxic substances often cannot be determined by water column sampling due to the low concentrations of toxicants in the water. Also, a number of toxic substances are not water soluble, but can be found associated with sediment or organic matter. The process of bioaccumulation acts to concentrate toxicants through the aquatic food web, sometimes many hundreds of times the levels actually in water. Therefore, in the TSMP the flesh of fish and other aquatic organisms (mainly crayfish) is analyzed to indicate whether any toxic substance is present. Fish livers are analyzed for metals, including arsenic, cadmium, chromium, copper, lead, nickel, silver, and zinc; fish muscle tissue (filet) is analyzed for mercury and selenium. In addition, fish filet and crayfish tail are analyzed for 45 synthetic organic compounds, which include pesticides and PCBs (Table 6-1). When very small-sized fish are available, only whole-body analyses are conducted.

The objectives of the Toxic Substances Monitoring Program are as follows:

- To develop statewide baseline data and to demonstrate trends in the occurrence of toxic elements and organic substances in the aquatic biota;
- To assess impacts of accumulated toxicants upon the usability of State waters by man;
- To assess impacts of accumulated toxicants upon the aquatic biota; and
- Where problem concentrations of toxicants are detected, to attempt to identify sources of toxicants and to relate concentrations found in the biota to concentrations found in the water.

Based upon the priorities identified by the Regional Board and the TSMP, the number and location of the sampling stations and the constituents investigated vary each year. When the program began, streams and lakes were ranked according to various criteria established to indicate their importance to the state in terms of water quality. The priority I, or highest priority, waterbodies were included in the first phase of monitoring. The Santa Ana River was included in this list and the station at Prado Dam has been sampled annually since the program began. The monitoring was expanded to include four other stations on the Santa Ana River and two of its tributaries, Chino and Cucamonga Creeks. A number of sites in the Newport Bay Watershed have also been sampled, largely in response to findings by the State Mussel Watch Program (see below) of high levels of organics and metals in the Bay itself. The results of this TSMP sampling led to an intensive study of toxics in San Diego Creek in 1985. Several stations were added to the program to monitor Anaheim Bay and its tributaries because of similar concerns. A number of the lakes in the region, including several park lakes, have also been sampled in this program. Table 6-2 lists the TSMP sampling sites in the Santa Ana Region (1978-1991).

Reports which describe the statewide TSMP sampling program sites, the constituents investigated, and the results have been published annually since 1977. A ten-year data summary was published in 1987.

State Mussel Watch Program

The State Mussel Watch (SMW) program is the state's long term marine water quality monitoring program, initiated in 1977. The SMW program provides the state with data showing trends in coastal and estuarine water quality. The Regional Board uses the data from SMW to establish the presence or absence of toxic substances and to monitor the variation in the concentrations detected at the various locations. Using this information, the Regional Board then attempts to locate the sources of the contamination. As with the Toxic Substances Monitoring Program, the State Board contracts with the Department of Fish and Game to perform the sampling and analysis.

- The primary goal of the SMW program are as follows:
- To provide long-term monitoring of certain toxic substances levels in coastal marine waters;

- To provide an important element in comprehensive water quality monitoring strategy; and
- To identify on a year-to-year basis specific areas where concentrations of toxic materials are higher than normal.

Mussels were chosen for the State Mussel Watch program because: (1) they are common along the California coast; (2) they are immobile in nature, permitting a localized measurement of water quality; (3) they have the ability to concentrate pollutants above ambient seawater levels; and (4) they provide a time-averaged sample. Where freshwater tributaries are suspected sources of toxics, freshwater clams are used. The trace metals analyzed in mussel and clam tissues are similar to those investigated by the Toxic Substances Monitoring Program and include aluminum, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver, and zinc. Synthetic organic compounds analyzed are listed in Table 6-1.

As with the Toxic Substances Monitoring Program, the number and location of SMW sites investigated varies each year, according to program needs and resource constraints. Several key areas in the Santa Ana Region are frequently sampled in this program (See Table 6-3). Anaheim Bay/Huntington Harbour area sampling locations include the Anaheim Navy Harbor, Anaheim Navy Marsh, Anaheim Bay at Edinger Street, and Anaheim Bay at Warner Avenue. In the Newport area, the most frequently sampled stations include Newport Bay Island, Newport Bay at Hwy 1 Bridge, Newport Bay at Crows Nest, Rhine Channel, and Newport Bay/Upper Rhine Channel. As with the TSMP, statewide SMW reports are published annually and a ten-year data summary for 1977-1987 is available.

REGIONAL MONITORING PROGRAMS

The regional monitoring programs are grouped with local agencies' programs because they are, for the most part, cooperative efforts. The sampling frequency, sampling stations, constituents, and other details vary from year to year, depending on needs and budgets of the Regional Board and local agencies.

The regional monitoring effort consists of the following:

1. Surface Water Monitoring
2. Groundwater Monitoring
3. Compliance Monitoring
4. Complaint Investigation
5. Intensive Surveys
6. Aerial Surveillance
7. Stormwater Monitoring

Surface Water Monitoring

With the exception of the annual sampling of the Santa Ana River at Prado Dam, the Regional Board's surface water monitoring program is not strictly formalized. The sampling frequency, locations, constituents, and other details vary from year to year depending on identified problems and needs, and on staff and funding availability. A number of other agencies conduct surface water monitoring programs in the region, including water purveyors, wastewater dischargers, and flood control agencies. The Regional Board makes every effort to coordinate its monitoring activities with these other agencies to maximize the collection and exchange of data, as well as the use of resources.

This Basin Plan specifies water quality objectives applicable to Reach 3 of the Santa Ana River for TDS, nitrogen, and other constituents which are set on the baseflow of the River (see Chapter 4). To determine compliance with these objectives, the Basin Plan requires that sampling of the River be conducted annually at Prado Dam. As directed by the Basin Plan, Board staff conducts the sampling during August, when the quantity and quality of baseflow is most consistent. Staff then reports the results to the Board. The results of this program are used to assess the effectiveness of the Board's regulatory programs and to determine whether changes, such as revisions to the TDS and nitrogen wasteload allocations, are necessary.

Groundwater Monitoring

The regional groundwater monitoring program depends upon the cooperation of local agencies to ensure that data are collected. The Region's municipal water supply districts sample their potable water wells to assure that the public health regulations are met. The sample results are also submitted to the Regional Board.

This Region relies greatly on groundwater computer models for basin planning studies. The groundwater quality data is collected by numerous agencies. The Regional Board contributes to the collection effort. All data will be collected in a computer database compiled by the Santa Ana Watershed Project Authority.

Compliance Monitoring

Under this program, data is collected and used to determine compliance with discharge requirements and receiving water standards, and to support enforcement actions and waste discharge prohibitions. The data are collected from self-monitoring reports generated by waste dischargers and from compliance monitoring reports prepared by Regional Board staff.

Self-monitoring reports submitted to the Regional Board are reviewed, and if violations are noted, appropriate action is taken, ranging from administrative

enforcement to judicial abatement, depending on the circumstances. Self-monitoring report data have also been used to develop pollutant loads and to measure general water quality conditions in the receiving water.

Table 6-1

Synthetic Organic Compounds Analyzed
in the State Mussel Watch
and Toxic Substances Monitoring Programs

Aldrin	p,p'-DDMU	delta-Lindane
Chlorbenside	o,p'-DDT	Total Lindane [2]
alpha-Chlordane	p,p'-DDT	Methoxychlor
gamma-Chlordane	Total DDT	Methyl Parathion
cis-Chlordane	Diazinon	Oxadiazon [2]
trans-Clordane	Dieldrin	PCB 1248
Oxychlordane	Endrin	PCB 1254
Total Chlordane	Endosulfan [1]	PCB 1260
cis-Nonachlor	Endosulfan [2]	Total PCB
trans-Nonachlor	Endosulfan Sulfate	Pentachlorophenol [1]
Chlorpyrifos	Total Endosulfan	Phenol [1]
Dacthal	Ethyl Parathion	Ronnel [1]
Dicofol [2]	Heptachlor	Tetrachlorophenol [1]
p,p'-DDE	Heptachlor Epoxide	Tetradifon [1]
o,p'-DDE	Hexachlorobenzene	Toxaphene
o,p'-DDD	alpha-Lindane	Tributylin [1]
p,p'-DDD	beta-Lindane	
p,p'-DDMS	gamma-Lindane	

1 These constituents are analyzed only in the State Mussel Watch Program

2 These constituents are analyzed only in the Toxic Substances Monitoring Program

Table 6-2

Toxic Substances Monitoring Program Stations
(Santa Ana Region)

Stations	Station Nos.	Map No. [1]	Year Sampled													
			78	79	80	81	82	83	84	85	86	87	88	89	90	91
Anaheim Bay Watershed																
Bolsa Chica Channel/Westminster Ave.	801.11.08	1									X	X	X			
E.G.G. Wintersburg Chnl/Beach Blvd.	801.11.90	2										X				
E.G.G. Wintersburg Chnl/Gothard St.	801.11.02	3									X		X			
Huntington Harbour/Anaheim Bay	801.11.00	4													X	
Ocean View Chnl/Beach Blvd.	801.11.03	5									X	X				
Ocean View Chnl/Brookhurst St.	801.11.91	6										X				
Ocean View Chnl/Newhope St.	801.11.92	7										X				
Westminster Chnl/Graham St.	801.11.01	8									X	X				
Newport Bay Watershed																
Newport Bay	801.11.97	9													X	
Peters Canyon Channel	801.11.96	10												X	X	X
San Diego Ck/Barranca Pkwy	801.11.09	11										X			X	X
San Diego Ck/Laguna Rd.	801.11.13	12										X				
San Diego Ck/Michelson Dr.	801.11.07	13						X	X	X	X	X	X	X	X	X
San Diego Ck/Upper Newport Bay	801.11.04	14							X	X	X					
Other																
Anza Channel	801.26.03	15												X	X	

1 See Figure 6-1 for station locations.

Table 6-2

Toxic Substances Monitoring Program
Stations
(Santa Ana Region)
(Continued)

			Year Sampled													
Stations	Station Nos.	Map No. [1]	78	79	80	81	82	83	84	85	86	87	88	89	90	91
Big Bear Lake	801.71.10	16											X	X		
Big Bear Lake/Boulder Bay	801.71.08	17							X							
Canyon Lake	802.12.01	18												X		
Carbon Canyon Park Lake	801.13.90	19										X				
Chino Creek/d/s Euclid Ave.	801.21.02	20							X	X	X		X			
Chino Creek/u/s Pine Ave.	801.21.03	21									X					
Craig Park Lake	845.61.91	22										X				
Cucamonga-Mill Ck/McCarty Rd.	801.21.04	23												X		
Delhi Channel	801.11.05	24								X						
Irvine Park Lake	801.12.01	25										X				
Lake Elsinore	802.31.00	26						X	X							
Lake Evans	801.26.01	27									X					
Lake Mathews	801.33.00	28									X					
Los Coyotes Park Lake	845.61.90	29										X				
Mason Park Lane	801.11.93	30										X				
Mile Square Park Lake #1	801.11.94	31										X				
Mile Square Park Lake #2	801.11.95	32										X				
Prado Lake	801.21.90	33												X		

1 See Figure 6-1 for station locations.

Table 6-2

Toxic Substances Monitoring Program Stations
(Santa Ana Region) (Continued)

			Year Sampled													
Stations	Station Nos.	Map No.[1]	78	79	80	81	82	83	84	85	86	87	88	89	90	91
Santa Ana River/Featherly Park	801.13.03	34								X						
Santa Ana River/Hammer Ave.	801.21.05	35											X			
Santa Ana River/Imperial Hwy	801.13.00	36								X						
Santa Ana River/Prado Dam	801.25.00	37	X	X	X	X	X	X	X	X	X		X	X	X	X
Santa Ana River/USGS Gage	801.21.09	38								X			X			
Yorba Park Lake	801.13.91	39										X				

1 See Figure 6-1 for station locations.

Table 6-3

State Mussel Watch Stations
(Santa Ana Region)

Stations	Station Nos.[1]	Year Sampled															
		77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92
Anaheim Bay Watershed																	
Anaheim Navy Harbor	707							X		X	X	X		X	X	X	
Anaheim Navy Marsh	708							X			X	X		X	X	X	
Anaheim Navy Marsh 2	708.5														X	X	
Anaheim Bay Entrance	709						X										
Anaheim Fuel Docks N	710				X	X											
Anaheim Fuel Docks S	710.2									X	X			X			
Launch Ramp Docks	711						X										
Peters Landing	712						X										
Anaheim Edinger St.	713							X		X	X				X	X	
Anaheim Bay - Warner Ave.	715							X		X	X			X	X	X	
Anaheim Harbor Ln.	717										X				X	X	
G.G. Wintersburg Channel	727															X	
Newport Bay Watershed																	
Newport Pier	720										X						
Newport Entrance Channel	721						X	X		X	X			X			
Newport Bay Police Docks	722				X		X				X						
Newport Bay El Pasco Dr.	722.4										X						

1 See Figure 6-2, 6-3, and 6-4 for station locations.

Table 6-3

State Mussel Watch Stations
(Santa Ana Region) (Continued)

		Year Sampled															
Stations	Station Nos. [1]	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92
Newport Bay Island	723						X		X	X	X			X	X	X	
Newport Bay Turning Basin	723.4										X			X	X	X	
Newport Hwy 1 Bridge	724						X	X		X	X			X		X	
Newport Bay Dunes Duck	724.4										X						
Newport Crows Nest	725						X	X		X	X	X	X	X	X	X	
Newport Upper Rhine	726						X	X		X	X	X	X	X			
Newport Bay Rhine Channel	726.2										X				X		
Newport Bay Rhine Channel End	726.4										X					X	
Newport Pier	731				X												
Newport W. Jetty	732			X	X												
Newport W. Jetty End	733				X												
Newport E. Jetty	734				X												
San Diego Ck./MacArthur	728.4									X	X				X	X	
San Diego Ck./Michelson	728.7															X	
Peters Cyn/Barranca	728.9															X	
Other																	
Corona Del Mar	735	X	X	X		X										X	
Santa Ana River/Prado Dam	719.1																X
Temescal Ck/Nickels Road	719.8																X

1 See Figure 6-2, 6-3, and 6-4 for station locations.

Figure 6-1
Toxic Substances Monitoring Program
Santa Ana Region Stations

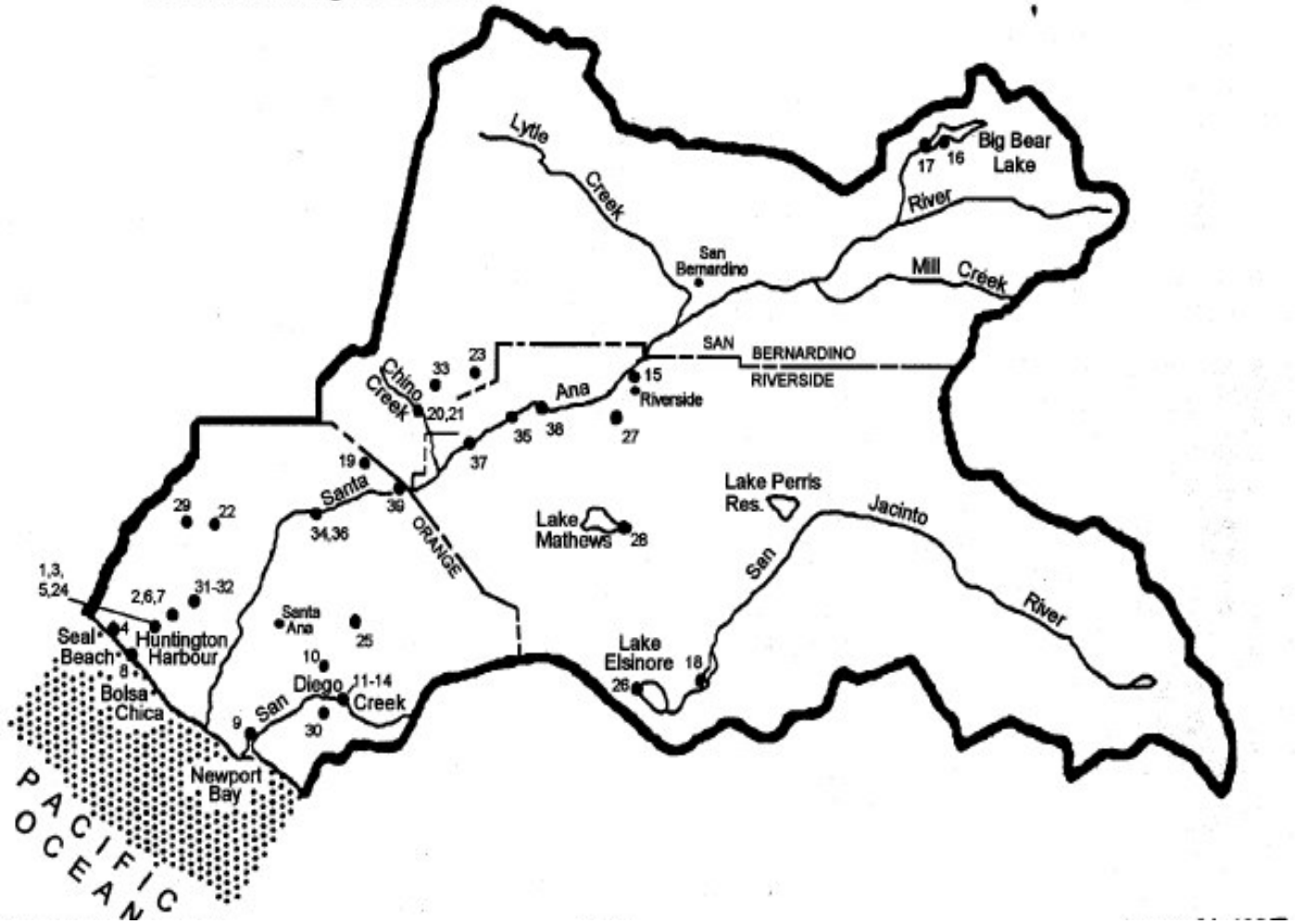


Figure 6-2
State Mussel Watch Stations
Anaheim Bay/Huntington Harbour Watershed

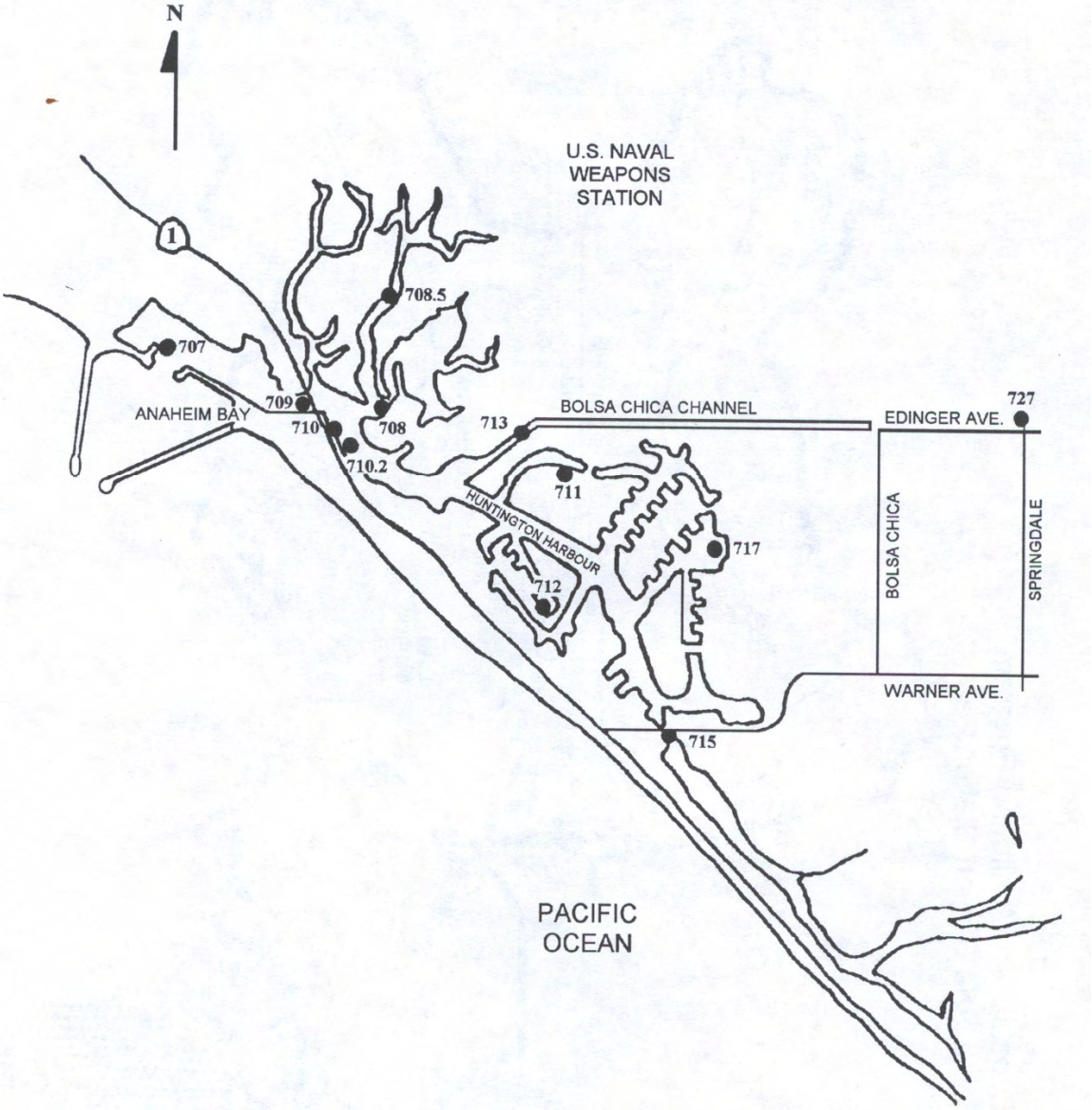


Figure 6-3
State Mussel Watch Stations
Newport Bay Watershed

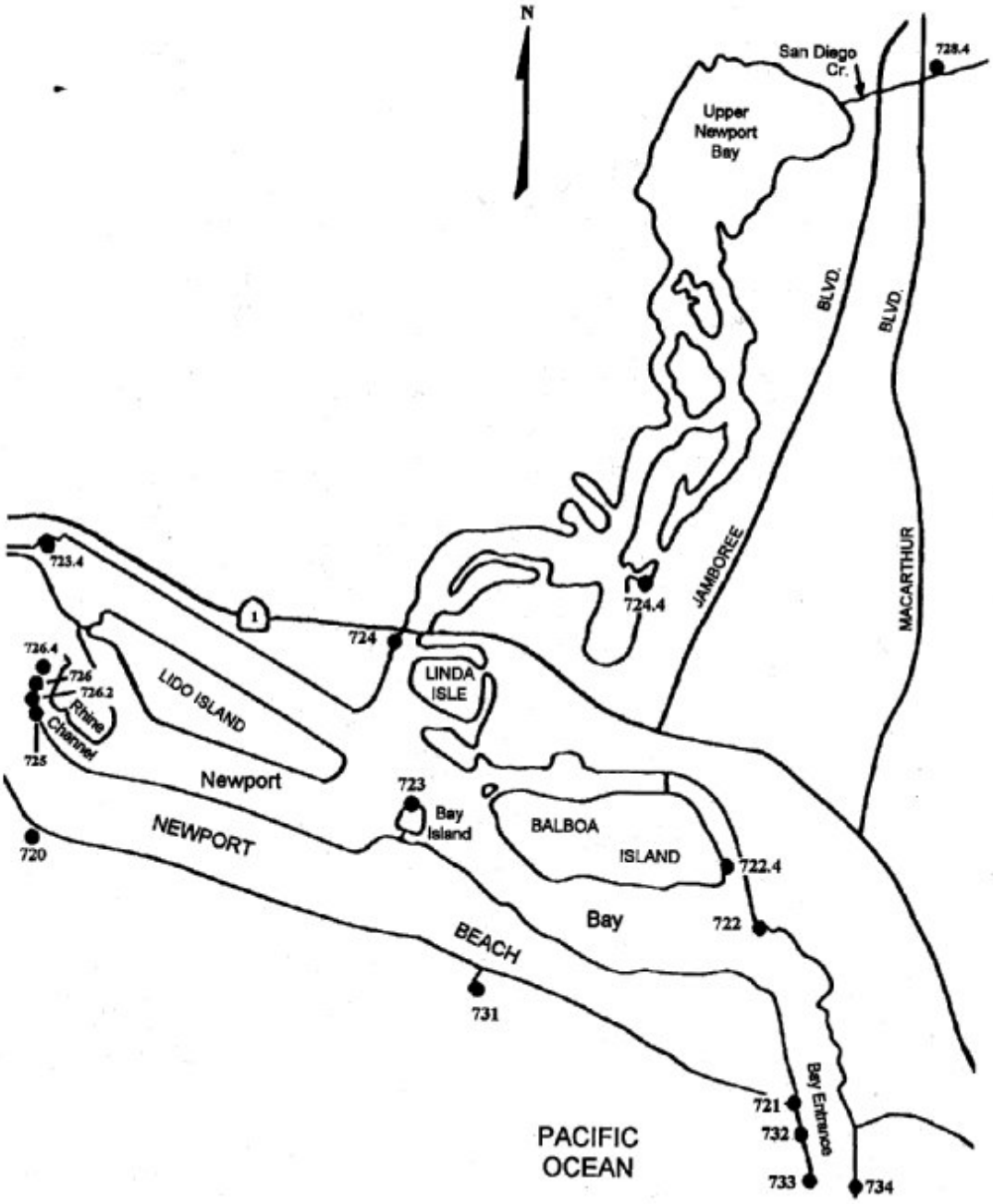
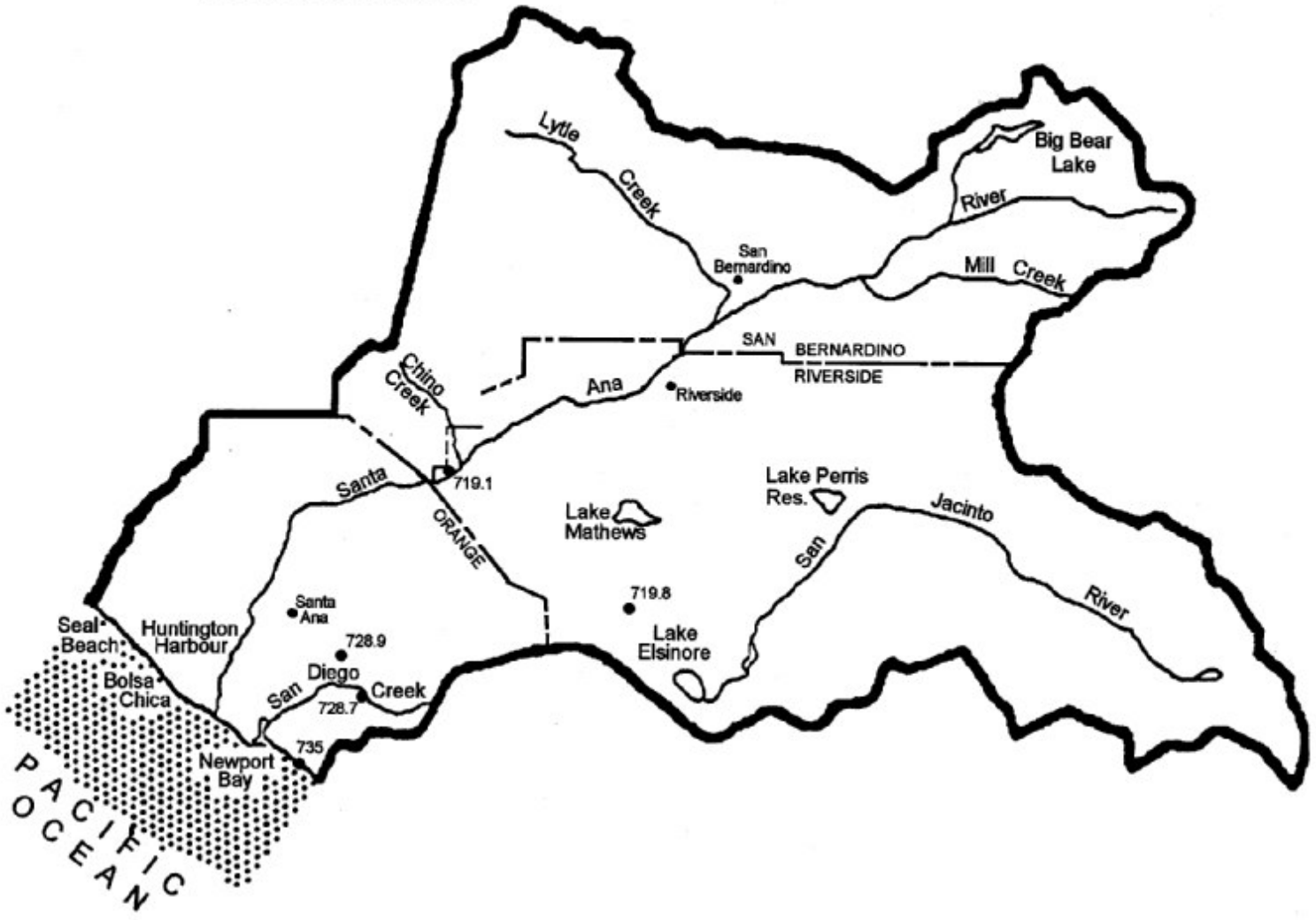


Figure 6-4
State Mussel Watch
Additional Stations



Compliance Monitoring (Continued form page 6-6)

The lowest concentration by which permit compliance is reliably measured is called the Practical Quantification Level (PQL). The PQL is used and taken into account when establishing waste discharge limits. PQLs will be developed using all available information, and will be established based upon information obtained from regional laboratories.

The Regional Board requires the initiation of a Toxicity Reduction Evaluation (TRE) if a discharge consistently exceeds its chronic toxicity effluent limit. The Regional Board, to date, has interpreted the "consistency exceeds" trigger as the failures of three successive monthly toxicity tests, each conducted on separate samples. Initiation of the TRE has also been conditioned on a determination that a sufficient level of toxicity exists to permit effective application of the analytical techniques required by a TRE. The Regional Board also encourages the development of scientifically sound toxicity test quality control and standardized interpretation criteria to improve the accuracy and reliability of chronic toxicity demonstrations.

Compliance monitoring also involves staff inspections of regulated and unregulated sites and includes observations made by staff members and/or results of analyses performed on samples collected by staff members.

Complaint Investigation

This program involves the investigation of complaints from citizens and public governmental agencies regarding the discharge of wastes or creation of nuisance conditions. It is a Regional Board responsibility which includes field studies, preparation of reports and letters, and other necessary follow-up actions to document observed conditions and to initiate appropriate corrective actions.

Intensive Surveys

Intensive monitoring surveys provide detailed water quality data to locate and evaluate violations of receiving water standards and to make wasteload allocations. They usually involved localized, intermittent sampling at higher than normal frequency. These surveys are performed in water quality-limited segments or hydrologic units which require additional sampling data to supplement the routine monitoring program results. The surveys are specially designed to evaluate water quality problems.

Beneficial use surveys are executed to aid in the review of the Basin Plan's water quality standards. This periodic review, entitled a "triennial review," is required in the

Clean Water Act. Intensive surveys have been performed on the middle Santa Ana River, Lake Elsinore, Lytle Creek, Mill Creek, San Diego Creek, Newport Bay, Huntington Harbour, and Strawberry Creek.

The Clean Lakes Program is specified in Section 314 of the Clean Water Act, and requires that all publicly owned freshwater lakes be identified and classified according to their trophic conditions. If a lake's condition is not known, a Clean Lakes Program survey may be performed to assess its water quality condition. If the trophic quality of the lake is determined not to protect its beneficial uses, the pollution sources and potential restorative measures are to be identified. The above actions may be conducted under a Clean Lake grant received from the federal government. Clean lake grant-funded studies of Lake Elsinore and Big Bear Lake are currently in progress.

Aerial Surveillance

Aerial surveillance is used primarily to gather photographic records of discharges and water quality conditions in the Region. Aerial surveillance is particularly effective because of the overall view of a facility that is obtained and because many facilities can be observed in a short period of time.

Municipal Stormwater Monitoring

The stormwater permitting program has been established to protect the water quality of the waterbodies which receive stormwater runoff. See Chapter 5 for a complete description of this program. Sampling of first-flush phenomena has indicated that stormwater discharges contain significant amounts of pollutants. Therefore, the Region's municipal stormwater permits require the permittees to develop comprehensive management and monitoring programs. Because each permit generally covers a large number of waterbodies, the required monitoring program is in two phases.

Phase I requires the discharger to sample those receiving waters where the beneficial uses are threatened or impaired due to runoff of stormwater and urban nuisance water. Under Phase II the dischargers will be required to develop stormwater management and monitoring programs for the remaining waterbodies included under the permit.

Stormwater discharges from urbanized areas consist mainly of surface runoff emanating from residential, commercial, and industrial areas. In addition, there are stormwater discharges from agricultural and other land uses. The constituents of concern in these discharges include: total and fecal coliform, enterococcus, total suspended solids, biochemical oxygen demand, chemical oxygen demand, total organic carbon, oil and grease, heavy metals, nutrients, base/neutral and acid extractibles, pesticides, herbicides, petroleum hydrocarbon products, and/or those causing extremely high or low pH.

The objectives of the stormwater monitoring programs are to: 1) define the type, magnitude, and sources of pollutants in the stormwater discharges within the permittee's jurisdiction so that appropriate pollution prevention and correction measures can be identified; 2) evaluate the effectiveness of pollution prevention and correction measures; and 3) evaluate compliance with water quality objectives established for the stormwater system or its components.

QUALITY ASSURANCE / QUALITY CONTROL

The purpose of the Quality Assurance Program is to ensure that data generated from environmental measurement studies are technically sound and legally defensible. A State Quality Assurance (QA) Program Plan was prepared under authority of the State Board in April 1990 describing how the State and Regional Boards will implement and manage the QA program. This Plan was approved by the State Board and the US EPA, Region IX, to meet requirements for federal funding.

The federal regulation requiring the State to develop and implement a QA Program is written in EPA Order 5360.1, April 3, 1993. The mandate is identified in 40 CFR 30.503 (July 1, 1987) requiring State agencies involved in environmentally-related measurement projects to develop and implement a Quality Assurance Program for programs partially or fully supported by Federal funds.

This mandate further requires that a QA Program Plan be developed that describes how a State agency will implement and manage a QA Program. It also requires that a QA Project Plan be prepared and approved prior to the start of any field or laboratory activities. A State's QA Program Plan must be approved by the federal award official before federal funds can be released. QA Project Plans are approved by a state's designated QA Officer and are available for federal review.

The State Board has appointed a QA Program Manager to direct and coordinate the overall program. Each State Board division and Regional Board has appointed a QA Officer to administer their respective QA responsibilities. The State and Regional Boards jointly administer the program but the State Board has lead responsibility for managing the overall program and reporting to EPA.

The Regional Board's QA Officer interacts with project managers on the required preparation of QA Project Plans for studies involving field and laboratory activities. The Project Plans should outline project objectives, data quality objectives in which management decisions will be based, and field and laboratory procedures that will be used to achieve the objectives. Once completed, the Plan must be reviewed and approved by an agency QA Officer or, when problems arise, by the State Board QA Program Manager before any field work can begin. Guidelines on Plan preparation have been distributed to the State and Regional Board QA Officers.

ASSESSMENT PROGRAMS

There are several statewide water quality assessments which are performed periodically. The assessments are used to evaluate the effectiveness of the Regional Boards' water quality programs to determine if making any changes are needed.

Water Quality Assessment

The Water Quality Assessment (WQA) is a catalog of the State's waterbodies and their water quality condition. The WQA identifies the water quality condition as good, intermediate, impaired or unknown. The data used to categorize waterbodies in the WQA are obtained from the various monitoring programs identified previously. All Regional Boards adopted their regional WQA at public meetings and submitted them to the State Board for inclusion in the State WQA. In addition, for impaired and high priority waters, factsheets were prepared to provide additional detail. The State Board intends the WQA to be updated on a regular basis, generally every two years.

The WQA serves many different purposes. The WQA, a public document, reports the condition of the State's waterbodies in a summary format. The lists of impaired waterbodies, included in the WQA, satisfy several Clean Water Act listing requirements. These federal lists are identified by the applicable Clean Water Act (CWA) section or Code of Federal Regulation (CFR) number. These include:

- CWA 303(d) – Water Quality Limited Segments where water quality objectives will not be met even with the Best Available Treatment/Best Control Technology (BAT/BCT)

- CFR 131.11 – Segments which may be affected by or warrant concern due to toxics

- CWA 314 – Lake Priorities

- CWA 319 – Nonpoint Source Impacted Waters

- CWA 304(l) ("Long List") – Waters designated as impaired because narrative or numeric objectives are violated or beneficial uses are impaired similar to CWA Section 303(d).

- CWA 304(s) ("Short List") – Waters not meeting water quality objectives because of toxics from point source discharges

- CWA 304(m) ("Mini List") – Waters not meeting water quality objectives because of toxics from either point or nonpoint sources.

WQA Water Quality Condition Classification

For each region, the individual waterbodies are listed. They are identified by water resource type, ***i.e.***, bays and harbors, wetlands, coastal waters, estuaries, lakes and reservoirs, groundwater, rivers and streams, and saline lakes. An entire waterbody may be classified with one water quality condition or divided by segments into more than one.

Good: waters that support and enhance the designated beneficial uses. Waterbodies classified as good may be designated a high priority if a threat to water quality is present.

Intermediate: waters that support designated beneficial uses while there is occasional degradation of water quality. Waterbodies suspected of impairment but for which there is inadequate data to conclude impairment are also given this classification.

Impaired: waters not reasonably expected to attain or maintain applicable water quality standards. Standards include both numeric and narrative water quality objectives and the beneficial uses the objectives are intended to protect.

Unknown: waters with unknown water quality where limited or no direct observations are available.

The WQA also provides the foundation for the State Board's Clean Water Strategy process. The current regional WQA and the associated factsheets are included as Appendix VII.

Clean Water Strategy

The Clean Water Strategy (CWS) is a process that the State Board implemented to assure that staff and fiscal resources are directed at the highest priority water quality issues throughout California. The primary objective of the CWS is to more effectively define and respond to priorities as revealed by the best available water quality information. A CWS goal is to link State and Regional Board programs together in directing actions on individual waterbodies.

The CWS relies on the Water Quality Assessment condition ratings to provide the technical information necessary to identify waterbodies needing protection or prevention actions, additional assessment or cleanup activities. In addition to the Water Quality Assessment, the regions determined the relative resource value of their waterbodies to recognize the relative importance of individual waters when compared to each other. The regions developed priority waterbody lists which are based upon the severity of their water quality problems or needs and relative resource values, from which the State Board assembled a statewide priority list based upon the same criteria.

There are six phases involved in implementing the Clean Water Strategy. As of this date, phases 1 and 2 have been completed. The State Board has begun a pilot study to determine the feasibility of phases 3 through 6.

Phase 1: Obtain the best information
2: Compare and prioritize waterbody concerns
3: Prioritize actions to address concerns
4: Allocate new resources
5: Implement strategy goals
6: Review results

305(b) Report

The 305(b) Report, also known as the National Water Quality Inventory Report, is a summary of all states' water quality reports compiled by the Environmental protection Agency. The report is prepared biennially from information that states are required to submit pursuant to Section 305(b)(1) of the Clean Water Act.

The State Board prepares the State report using information taken from the WQA. The State 305(b) Report includes: (a) a description of the water quality of major navigable waters in the State during the preceding years; (b) and analysis of the extent to which significant navigable waters provide for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allow recreational activities in and on the water; (c) an analysis of the extent to which elimination of the discharge of pollutants is being employed or will be needed; and (d) estimates of the environmental impact, the economic and social costs necessary to achieve the "no discharge" objective of the Clean Water Act, the economic and social benefits of such achievement, and the dates of such achievement. The report also recommends programs which must be implemented to achieve the CWA goals.

DATA MANAGEMENT

Regional Modeling Efforts

SAGIS/ADSS: The Santa Ana Watershed Project Authority Planning Department has devised a modeling program and system called the Advanced Decision Support System (ADSS) to aid in the development of long-range plans to meet water quality and quantity objectives (ARC/INFO is the trademark of the Environmental Systems Research Institute's copyrighted program. Although this product is mentioned in the Basin Plan, the Santa Ana Regional Board is not endorsing any commercial products). The ADSS creates a central data storage facility standardizing data collection, storage, and retrieval. The core of the ADSS is the Santa Ana

Geographic Information Systems (SAGIS). SAGIS is an ARC/INFO[1]-based water resource analysis and graphic tool written in ARC Marco Language. SAGIS includes a library of various geographic overlays to create custom base maps for water resource data. The system also allows the user to view data stored in tabular form and plot the results versus time. SAGIS will produce a variety of water quality and quantity analysis maps and plots. SAGIS includes a comprehensive landuse database of the Santa Ana River Basin to project future water needs.

Regional Databases

STORET: STORET, which stands for STOrage and RETrieval, is a national database system that contains environmental monitoring data relating to the water quality within this Regional Board's boundaries and throughout the United States. These data are the result of field and laboratory analyses performed on samples gathered from streams, lakes, estuaries, groundwater, and other waterbodies. The STORET system resides on an IBM 3090 mainframe computer maintained by the US EPA at the National Computer Center in North Carolina.

The original database has evolved into a more comprehensive system capable of performing a broad range of analyses, as well as serving as the depository for data. In California, stations are sampled, in part, by the following agencies: California Department of Water Resources, U.S. Geographical Survey, California Department of Health Services, and the Regional Boards. The Regional Boards, as well as the State Board, EPA, and other regulatory agencies utilize the STORET database to examine the causes and effects of water pollution, to measure compliance with water quality objectives and maintenance of beneficial uses, and to determine water quality trends.

SABRINA: Another part of the ADSS is the Santa Ana Relational Database Management System, or SABRINA. Developed by SAWPA, SABRINA is a menu-driven application written in a database language and stores the data used by SAGIS.

[1] ARC/INFO is the trademark of the Environmental Systems Research Institute's copyrighted program. Although this product is mentioned in the Basin Plan, the Santa Ana Regional Board is not endorsing any commercial products.

REFERENCES

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California Regional Water Quality Control Board, Santa Ana Region, “Newport Bay Clean Water Strategy, A Report and Recommendations for Future Action,” September, 1989.

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CHAPTER 7

WATER RESOURCES AND WATER QUALITY MANAGEMENT

INTRODUCTION

Numerous water resource management studies and projects, focused on water quality and/or water supply, are in progress in the Region under the auspices of a variety of parties. Some of these activities bear directly on the implementation of this Plan and were briefly described earlier (Chapter 5). Others may lead to future Basin Plan amendments to incorporate appropriate changes, such as revised regulatory strategies for POTWs or other dischargers. Excellent examples of these programs are the extensive, multi-agency effort in the Chino Basin to evaluate water resource management alternatives and the implementation of groundwater desalters by the Santa Ana Watershed Project Authority (SAWPA) to address the severe TDS and nitrate quality problems in that Basin. Such investigations, and the implementation of appropriate physical solutions, are an essential and integral part of the effort to restore and maintain water quality in the Region.

Funding for these investigations and projects comes from a variety of sources. Local and regional agencies contribute substantial funds and staff resources. State and federal funds, in the form of loans or grants administered principally by the State Water Resources Control Board or the US EPA, are an important source of support. Volunteer efforts by citizens' groups and private landowners also contribute significantly.

The purpose of this chapter, which is new to the Basin Plan, is strictly informational – the intent is to provide an overview of some of these studies, the agencies conducting them and funding mechanisms. This discussion is necessarily brief and incomplete but should convey a sense of the scope and significance of the participation of others in water resources management in the Region.

SANTA ANA WATERSHED PROJECT AUTHORITY

The activities of the Santa Ana Watershed Project Authority (SAWPA) have been and remain exceptionally important to the management and protection of water resources in the Region. For this reason, SAWPA warrants special discussion.

As noted in Chapter 1, SAWPA is a joint powers agency which conducts water-related investigations and planning studies, and builds physical facilities where needed for water supply, wastewater treatment or water quality remediation. SAWPA is comprised of the five major water supply and/or wastewater management agencies in the Region: Chino Basin Municipal Water District (CBMWD); Eastern Municipal Water District (EMWD); Orange County Water

District (OCWD); San Bernardino Valley Municipal Water District (SBVMWD); and Western Municipal Water District (WMWD).

Since the early 1970's, SAWPA has played a key role in the development and update of the Basin Plan for the Santa Ana Region. SAWPA continues to sponsor, participate in, and/or oversee numerous water quality planning studies. Ongoing studies include the Chino Basin Water Resources Management Study, the Colton-Riverside Conjunctive Use Project, an investigation of water quality in Lake Elsinore, and studies of nitrogen and organic carbon in the Prado Basin. These studies are briefly described later in this chapter.

SAWPA also plays a crucial role in the implementation of the Basin Plan through the construction of physical facilities. SAWPA built and now operates the Arlington Desalter and is in the process of implementing two such facilities in the Chino Basin. As described in Chapter 5, these desalters are key parts of this Plan's strategy to address salt problems in the upper Santa Ana Basin. Additional desalters for the Riverside/Colton and Temescal areas are being considered.

SAWPA is responsible for the construction of the West Riverside County Regional Wastewater Treatment Facility and, with the cities of San Bernardino and Colton, for the Rapid Infiltration and Extraction treatment facility, which will provide wastewater treatment equivalent to tertiary for those cities. SAWPA built and is now planning expansion of the Santa Ana Regional Interceptor, or SARI line, which transports highly saline wastes out of the Basin (see also Chapter 5). SAWPA constructed and operates treatment facilities for contaminated groundwater at the Stringfellow site. SAWPA has also played a key role in the implementation of the Lake Elsinore Stabilization Project.

As noted in Chapter 6, SAWPA has undertaken to act as a clearinghouse for region-wide data on water quality, landuse, population, etc., by implementing database and geographical information systems including SABRINA, SAGIS (Santa Ana Geographic Information System) and the Advanced Decision Support System.

NATIONAL WATER RESEARCH INSTITUTE

The National Water Research Institute (NWRI) was founded through funding provided by the Joan Irvine Smith and Athalie R. Clarke Foundation, the County Sanitation Districts of Orange County, the Irvine Ranch Water District, the Municipal Water District of Orange County, Orange County Water District, and the San Juan Basin Authority. The Institute was created to identify and support independent research projects throughout the United States which will lead to improved water quality and water supplies.

The Institute's research priorities include water quality improvement and recycling, watershed management, health risk assessment, membrane research,

and the development of public policy. The Institute uses a number of strategies to fulfill these objectives, including:

- working with local, state, and national water resource organizations to identify research needs;
- encountering broad-based participation in joint venture partnership which support water research;
- providing opportunities for members of the national water research community to meet and exchange ideas;
- developing technical and institutional strategies which ensure that research results are implemented in a timely, cost-effective manner;
- educating the general public about the need for water conservation and research; and
- serving as a catalyst to encourage development of centers of excellence in water research.

The Institute is independently governed by a Board of Directors consisting of one member from each of the contributing agencies. The NWRI and its partners establish joint ventures to sponsor research projects. NWRI has funded numerous projects which benefit the region including research on water quality and wildlife enhancement in the Prado Wetlands, television documentaries focusing on water resources issues on the lower Santa Ana River, investigation of several wastewater treatment technologies, and the treatment of contaminants in groundwater.

INLAND SURFACE WATERS

Big Bear Watershed

Big Bear Lake is located in the San Bernardino Mountains in central San Bernardino County. The close proximity of the Lake and mountains to the urban communities within Los Angeles, San Diego, Riverside, and San Bernardino Counties has made it a heavily utilized recreational attraction. During winter, the mountains surrounding Big Bear Lake are visited by hundreds of thousands of skiers and sightseers, while the summer months bring thousands of tourists to enjoy the pleasures of the Lake and the beautiful forested landscape. The Lake is also an important wildlife resource, providing habitat for a wide variety of plants and animals, including rare and endangered species.

A cooperative effort to ensure proper management and protection of this resource is in progress. A number of agencies, private organizations, and

individuals have joined in the development of the Big Bear Valley Coordinated Resource Management Plan (CRMP). A geographic information system will be developed to integrate information on plant and animal habitats, tributaries, and other relevant data. The intent is to use this system as a guide in making land use decisions.

The participants include:

- East Valley Resource Conservation District
- City of Big Bear Lake
- Big Bear Municipal Water District
- County of San Bernardino Planning Department
- Santa Ana Regional Water Quality Control Board
- California Department of Forestry
- California Department of Fish and Game
- California Department of Health Services
- Natural Heritage Foundation
- Big Bear Area Regional Wastewater Agency
- Big Bear City Community Services District
- Bear Mountain Ski Area
- Snow Summit Ski Area
- U.S. Fish and Wildlife Services
- U.S. Army Corps of Engineers
- U.S. Soil Conservation Service
- USDA Forest Service

Lake Elsinore

Lake Elsinore is a heavily used recreational waterbody located in the San Jacinto Watershed in southwest Riverside County. As noted in Chapter 1, the lake periodically goes dry, resulting in fish kills and adverse impacts on recreational opportunities. Projects to stabilize the level of the Lake are now being completed or considered. Among these is consideration of the use of reclaimed water to maintain water levels.

SAWPA is overseeing a study of the Lake, funded by a Clean Water Act Section 314 Clean Lakes Program grant. The objectives of the study, which is to be completed by December 1993, are to:

- determine Lake Elsinore's current water quality and its effect on its beneficial uses;

- analyze the potential effects of reclaimed water upon the Lake; and

- prepare a water quality management plan.

The study is a one-year program consisting of water quality sampling and analysis. The Lake's water quality will be compared to the water quality of reclaimed water distributed by Eastern Municipal Water District. A water quality management plan will be prepared and should specify: (1) ways to maximize the Lake's water quality; (2) the feasibility of the proposed improvements; (3) a technical plan; and (4) a schedule with implementation milestones.

Santa Ana River Mainstream Project

Because of rapid growth and development in Orange, Riverside, and San Bernardino Counties, the current flood control system is inadequate to manage the runoff in these areas. The three counties are working collaboratively with the U.S. Army Corps of Engineers (Corps) to design and construct the Santa Ana River Mainstream project (Mainstream Project). The Mainstream Project will provide increased flood protection to communities within those counties, and will include specific environmental restoration projects.

The Mainstream Project will cover 75 miles from the Santa Ana River headwaters to its mouth. The project will provide the upper and lower Santa Ana River Basin various levels of flood protection ranging from a 100-year to 190-year flood flows.

The Corps will construct structural improvements including Seven Oaks Dam, Mill Creek Levee, San Timoteo Creek, Prado Dam, Oak Street Drain in Corona, 23 miles of the lower Santa Ana River, and Santiago Creek. Prado Dam and the spillway will be raised an additional thirty feet in height. Ninety-two acres of currently degraded marshland located within the Santa Ana River Salt Marsh will be restored increasing the marsh's value as a wetland habitat. In addition, a large portion of Santa Ana Canyon will be purchased and a resource, habitat, and floodplain management plan will be developed to ensure that that part of the Canyon will not undergo any landuse changes.

Santa Ana River Total Inorganic Nitrogen/Total Organic Carbon

Modeling work done for the update of the total dissolved solids and nitrogen management plans for the upper Santa Ana Basin (see Chapter 5) demonstrated the presence of a "nitrogen sink" in the Prado Basin. This sink effectively removes a major portion of the nitrate present in the Santa Ana River. In order to optimize this phenomenon, Orange County Water District and SAWPA have undertaken a study to evaluate the natural biochemical processes impacting total inorganic nitrogen (TIN) and total organic carbon (TOC) concentrations in the water as it flows through constructed wetlands. Based on the study's findings and conclusions, ways to enhance the natural processes to maximize total inorganic nitrogen removal will be recommended.

Multipurpose Corridor

Eastern Municipal Water District is leading the conceptual development of a natural multipurpose corridor to be located within the San Jacinto River and Salt Creek riparian corridors. The multipurpose corridor would connect adjacent communities, as well as agricultural regions, wildlife habitats, and rural areas. A planning task force has endorsed the idea of establishing such a passageway. The task force is hoping the corridor will lead to other benefits such as the development of:

- A water resource management plan, including groundwater basin recharge and emergency storage, general water quality improvement, storm flow storage, and erosion and flood control;

- coordinated landuse planning, including parks, water conservation measures, recreational areas, buffer zones, shared utility easements, and cost-effective resource management; and

- enhancement of the local environment for both wildlife and people.

Water Harvesting Demonstration Project

The development of demonstration water harvesting facilities within the San Jacinto watershed has been proposed by Eastern Municipal Water District (EMWD). The objective would be to capture surface water flows, consisting of rainfall runoff and stormwater discharges, which would normally flow unimpeded in the river. EMWD is considering this project because rapid urban development has decreased the amount of surface area available for percolation of rainfall and other runoff into the aquifers.

The District is interested in implementing the water capture plan to supplement their reclaimed water supplies. EMWD could use the harvested runoff directly for irrigation or site percolation ponds in locations where the groundwater basin would be recharged for domestic beneficial uses. Initiation of the program will entail a review of the physical and chemical properties of the runoff, hydrology, operational and maintenance controls of the reuse facilities, economics, compliance with the Basin Plan's water quality objectives, and permitting issues.

Several project locations were identified during a feasibility study and include existing storm drains, conveyance pipelines, and recharge facilities. Facilities currently under consideration are the Buena Vista and San Jacinto Retention Basins and the San Jacinto Reservoir. Conceptual projects include the Salt Creek and San Jacinto Northwest Improvement Plan, and the Lake Hemet Municipal Water District Cooperative Program.

Multipurpose Wetlands

EMWD and the U.S. Bureau of Reclamation are cooperating in a Multipurpose Wetlands Research and Demonstration Study. The objective is to evaluate the effectiveness and feasibility of integrating constructed wetlands with conventional wastewater treatment facilities.

The agencies have constructed a wetlands research facility located on four acres of Hemet/San Jacinto Regional Water Reclamation Facility. It is being used to determine future design and operating criteria for demonstration wetlands at the Reclamation Facility and to refine the design and operating criteria for future EMWD wetlands projects.

EMWD is interested in the use of desalters to reclaim brackish groundwater for water supply or groundwater recharge purposes. A pilot study at the Wetlands Research Facility is being conducted to evaluate the feasibility of using the reject stream from the desalters in vegetated saline marshes. If they prove feasible, these marshes would provide wildlife habitat as well as additional use of brackish water.

A 20-to-30-acre demonstration project at the Reclamation Facility is expected to begin in the fall of 1993. It will include an integrated system of 5 separate wetlands treatment units, a combined open water and marsh habitat area, and a combined final polishing wetland. One of the objectives of this project is to evaluate the ability of a constructed wetland system to provide treatment of secondary wastewater which is equivalent to that of conventional tertiary treatment facilities, and to remove nitrogen and low levels of metals and organic compounds.

A 20-acre demonstration project at the San Jacinto Wildlife Area is also planned. The intent is to provide additional treatment of wastewater, while maximizing brooding habitat for a variety of birds.

GROUNDWATERS

Chino Basin Water Resources Management Study

The purpose of this study is to develop a comprehensive plan for water resources management in the Chino Basin. The objectives are to coordinate the management of imported and local water supplies, including wastewater, and to develop plans and projects which will maximize the use of these resources, assure reliable, good quality supplies, and protect or improve local water quality.

This study is being conducted by a consortium of agencies, including the Chino Basin Municipal Water District, SAWPA, the Metropolitan Water District of Southern California (MWD), the Chino Basin Watermaster (which represents municipal and agricultural water users in the Basin), and the Regional Board.

A significant feature of this study is the development of a new integrated ground and surface water model for the Chino Basin. The model is calibrated for both TDS and nitrogen. This model is much more detailed and refined than the Basin Planning Procedure (BPP) (see Chapter 5) and will supplant the use of the BPP in this area. The new model will be used to evaluate the water quality (and quantity) effects of alternative water resource management plans. These analyses will then be used to select a recommended plan.

The Chino Basin water resources management plan is expected to include the following: management of rising groundwater contributions to the Santa Ana River; use and protection of groundwater supplies; the expansion of wastewater reclamation; optimization of capture of local runoff for recharge purposes; and reduction of water demand through water conservation.

MWD has proposed a groundwater storage program in the Chino Basin, whereby State Water Project water would be recharged in the Basin for use during emergency, drought, and other conditions when the Project water is not available. As proposed, the recharge would occur directly, via spreading or injection of State Project Water, and indirectly, through exchange of Chino Basin groundwater for surface water delivered to local water supply agencies. The Chino Basin study will evaluate opportunities to increase seasonal storage and optimize local and imported water use.

In part because of the involvement and varied interests of so many parties, the development and implementation of the water resources management plan is likely to be very complex. The Regional Board's requirements must also be satisfied. Further, Chino Basin is adjudicated and the requirements of the adjudication must be met or modified, if all the parties agree to the management plan.

The results and recommendations of this study may lead to changes in the Basin Plan. Such changes would be accomplished through appropriate Basin Plan amendments.

Colton-Riverside Basins Water Resources Management Plan

Under the auspices of SAWPA, a project task force has been formed to develop a water resources conjunctive use plan for the Colton and Riverside groundwater subbasins. The task force members are:

- Western Municipal Water District
- San Bernardino Valley Municipal Water District
- Orange County Water District
- Eastern Municipal Water District
- Elsinore Valley Municipal Water District

- San Bernardino Valley Water Conservation District
- Yucaipa Valley Water District
- Jurupa Community Services District
- City of Riverside
- City of San Bernardino
- City of Colton
- City of Rialto
- SAWPA

Many other parties have interest in the development and implementation of the management plan, including the Regional Board, which is participating in the study in an advisory role.

The purpose of the plan is to integrate the management of imported water, wastewater, and stormwater in the two subbasins. The overall objective is to maximize the use of local water resources with equitable sharing of the costs among all parties, including water purveyors, regional water management agencies, and wastewater dischargers. The term “conjunctive use” refers to this coordinated management of water supply sources that the yield from these sources is greater than the sum of the yields resulting from independent management of the sources.

Some of the goals identified are to: restore the quality of the Colton and Riverside subbasins; ensure a reliable potable water supply; reduce dependence on imported water; maximize both the use of local groundwater and reuse of wastewater; minimize the cost of wastewater treatment; and redistribute base flow in the Santa Ana River to allow more capture of the flows by Orange County Water District.

Four projects, designated A, B, C, and D, have been identifies to accomplish these goals. Project A involves the improvement of wastewater quality discharged to the Santa Ana River through improvements at the Colton, Rialto, and San Bernardino wastewater treatment plants, and the construction of a pipeline to relocate the wastewater discharge points downstream of the Colton subbasin. Project B involves the production of high-TDS groundwater from the Riverside subbasin with the goal of creating capacity for recharge with higher quality water (such as stormwater, State Project water, and Bunker Hill subbasin groundwater) and seasonal storage of wastewater. Project C would improve groundwater quality in the Colton subbasin by pumping and export of groundwater and recharge with higher quality local runoff, State Project water, Bunker Hill groundwater, and San Bernardino wastewater. Recharge would be accomplished via run-of-river “T” levees. Project D is a Riverside subbasin restoration and water supply project. Groundwater would be extracted and high quality stormwaters, imported water, Bunker Hill groundwater, and reclaimed wastewater would be percolated in a system of “T” levees in the Santa Ana River. The mix of waters recharged would be controlled to produce a water

supply quality that is consistent with both drinking water standards and wastewater discharge limitations.

These projects will be considered and implemented in phases. Wastewater treatment plant improvements (Project A) are already in progress. As in the Chino Basin (see preceding discussion), the involvement and interests of the many parties is likely to make implementation complex. Water resources in this area are also adjudicated and, again, the requirements of the adjudication must be satisfied. The Regional Board's concerns and requirements must also be addressed.

The result of the Conjunctive Use study may lead to changes in this Basin Plan. For example, a revised regulatory strategy for wastewater discharges by San Bernardino, Colton, and Rialto may be found appropriate. Implementation of the identified projects may supplant the need for the Riverside-Colton desalter, which is included in the Recommended Plan (Alternative 5C). If appropriate, amendments to the Basin Plan can be made to incorporate such changes.

Bunker Hill Basin Replenishment

The Bunker Hill Basin is artificially recharged by several agencies. Surface stream diversions are made for groundwater replenishment by the Lytle Creek Water Association on Lytle Creek and by the San Bernardino Valley Water Conservation District on Santa Ana River and Mill Creek. The San Bernardino County Flood Control District has facilities on Devil Creek, Twin Creek, Waterman Creek, and Sand Creek which may be used for groundwater recharge. The surface diversion of the waters of Lytle Creek have occurred as early as 1872. Lytle Creek water rights, which include diversions for groundwater recharge, are now administered by the Lytle Creek Water Association for six parties, according to a 1924 judgement. The San Bernardino Valley Water Conservation District began recharging the Bunker Hill Basin with Santa Ana River water (through its predecessor) in 1911 while groundwater recharge on Mill Creek began in the 1890s and was taken over by the Conservation District in 1934. In excess of 1,000,000 acre feet of Santa Ana River and Mill Creek waters have been recharged to replenish the Bunker Hill Basin. In addition, the San Bernardino Valley Municipal Water District has imported State Project water for replenishment into the Bunker Hill Basin. Since 1972, in excess of 150,000 acre feet of imported State Project Water has been recharged in the Bunker Hill Basin. The replenishment activities of the above four agencies play an extremely important role in managing the Bunker Hill Basin to supply the current and future needs of the Basin.

Hemet and San Jacinto Groundwater Basin Management Program

The Hemet/San Jacinto Groundwater Association and Eastern Municipal Water District are in the process of developing a Groundwater Management Plan for the Hemet and San Jacinto basins. The Objective of the Management Plan is to

optimize use and management of the groundwater resources in the Hemet and San Jacinto groundwater subbasins through the cooperative efforts of an association of the major basin pumpers. Eastern Municipal Water District is cooperating with the Metropolitan water District of Southern California (MWD), the U.S. Geological Survey, UC Riverside and UC Los Angeles to collect water quality and quantity data, landuse information, and data on basin hydrogeology, and to develop appropriate planning tools. A Management Plan will be developed and will include plans or programs designed to maximize the groundwater resources and ensure future water supplies.

To protect the other subbasins in the San Jacinto watershed, including Perris, Menifee, Lakeview, Winchester, and San Jacinto Lower Pressure, Eastern Municipal Water District has initiated an Assembly Bill (AB) 3030 Groundwater Management Plan. AB 3030 was adopted by the California Legislature in 1992. AB 3030 amends Section 10750 ***et seq.*** of the Water Code to allow a local agency whose service area includes a groundwater basin that is not already subject to groundwater management pursuant to law or court order to adopt and implement a groundwater management plan. The program could include plans to mitigate overdraft conditions, control brackish water, and monitor and replenish groundwater.

Hemet Groundwater Investigations

Eastern Municipal Water District and the U.S. Geological Survey (USGS) are currently involved in a four-year investigation of the dynamics of nitrate and TDS movement in the unsaturated zone of the Hemet groundwater subbasin. The Study objectives are to define the thickness and extent of water-bearing materials and to determine the direction of groundwater flow, the chemical quality of groundwater, the flux of nitrate in the unsaturated zone, and the degree of mixing and vertical distribution of nitrate in the saturated zone. The USGS has completed a draft study and is scheduled to provide a final report by the end of 1993.

Eastern Municipal Water District and MWD are also contracting with UC Los Angeles to develop and Optimal Data Collection Design Strategy as a basin management planning tool for the Hemet Basin. Eastern Municipal Water District and MWD contracted with UC Riverside to perform geophysical investigations in order to delineate the bedrock of the Hemet Basin and to obtain information on the available water supply of the Basin.

San Jacinto River Groundwater Recharge Program

A groundwater recharge/storage program within the San Jacinto Basin has been developed by EMWD. A demonstration project was begun in October 1990 with cooperation from MWD and the Universities of California, Riverside, and Los Angeles. The objectives of the demonstration project were to evaluate the

infiltration rate, establish the impacts on basin hydrology and groundwater quality, and approximate the distribution of the recharged water.

The demonstration project used ponds located within the San Jacinto riverbed to recharge the aquifer with State Project Water for a three-year period. Interaction between the local groundwater and State Project Water was assessed by monitoring water quality conditions and levels from October 1990 through January 1991. It was concluded that the average percolation rate in these basins is 6.30 feet/day. The study has determined that imported water can be successfully stored seasonally.

Green Acres Project

Orange County Water District has obtained funding for the Green Acres project from the State Board. The Green Acres project uses reclaimed wastewater to extend local water supplies. Secondary effluent supplied by the County Sanitation Districts of Orange County is treated at the Green Acres facility site in Fountain Valley. The product water is provided to parks, greenbelts, nurseries, schoolyards, golf courses, and industrial sites within a five-mile radius of the plant. Phase I of the project provides 7.5 million gallons of water each day for those uses. The facility design allows for a second-phase expansion to 15 million gallons per day.

The Green Acres distribution system calls for over 25 miles of pipe ranging in diameter from 6 to 36 inches. The first reach of the pipeline will extend into the City of Fountain Valley. The distribution system will supply areas in Santa Ana, Costa Mesa, and eventually Huntington Beach and Newport Beach.

Southern California Comprehensive Reclamation and Reuse Study

In October 1991, SAWPA and several other local agencies became participants in the Southern California Comprehensive Reclamation and Reuse (“SOCAL”) Study. The project is a 6-year, $6 million effort which will be cost-shared 50 percent by the U.S. Bureau of Reclamation and 50 percent by local agencies. The region’s participants include SAWPA, Chino Basin Municipal Water District, Eastern Municipal Water District, Orange County Water District, San Bernardino Valley Municipal Water District, and Western Municipal Water District. The San Diego County Water Authority is a participant as well. The purpose of the study is to develop a long-range strategy for more effective integration of fresh and reclaimed water management programs, and to determine the feasibility of various water reclamation projects within Southern California.

The overall study, initiated on March 10, 1992, consists of two main phases with the first phase consisting of two parts. The first part, Phase 1a, will be the compilation and generation of baseline information. The intended objective of Phase 1a is to more clearly identify the potential for increasing the use of

reclaimed water throughout Southern California. When all data on reclaimed water supply and potential use is collected, possible reclamation project alternatives will be identified, including the possibility of transferring reclaimed water across jurisdictional lines.

Phase 1a will also include the development of screening criteria and tools of analysis necessary to identify and evaluate potential reclaimed water projects. Significant public involvement efforts will begin in Phase 1a and continue through the remainder of the study.

Phase 1a will conclude with the production of a report. The report will include: 1) a description and evaluation of those project alternatives that are considered likely to be feasible given the current and expected economic, environmental, and institutional conditions during the 20-year and 50-year planning horizons; 2) and economic distribution model to be used to further analyze the feasibility of those projects; and 3) a detailed scope of work for Phase 1b.

COASTAL WATERS

Southern California Coastal Water Research Project

As discussed in Chapter Six (Monitoring and Assessment), the Regional Board requires that waste dischargers conduct monitoring programs to evaluate the effects of their discharges on the receiving waters. In the Santa Ana Region, the most extensive self-monitoring program (approximately 2 million dollars per year) is carried out by the County Sanitation Districts of Orange County (CSDOC), which discharges about 240 MGD of wastewater to the Pacific Ocean via a 5-mile outfall.

Other ocean dischargers, such as the Southern California Edison's Huntington Beach Generating Station, conduct receiving water monitoring programs, though these are considerably less extensive than that prescribed for CSDOC.

It has been recognized for some time, however, that these individual discharger efforts, despite their intensity and sophistication, are not in themselves sufficient to obtain an accurate and complete picture of the impacts of ocean discharges. A broader, regional perspective is necessary to evaluate the cumulative effects and interactions of all inputs to the coastal waters from both point and nonpoint sources.

Towards that end, the Southern California Coastal Water Research Project (SCCWRP) was established in 1969 by a consortium of waste dischargers. SCCWRP conducts a wide variety of chemical, physical, and biological investigations of the open coastal waters from San Diego to Ventura, and area commonly called the Southern California Bight. SCCWRP's mission is to understand the effects of urban wastes on the marine environment. Annual reports describe the specific research projects conducted to characterize the

sources, fates, and effects of anthropogenic pollution on marine water quality, biota, and sediments.

The organization of the SCCWRP administration was recently revised. The SCCWRP Commission, which provides direction on regional monitoring needs and priorities, now includes staff representatives from the Los Angeles, Santa Ana, and San Diego Regional Boards, the State Board and US EPA, as well as the Sanitation Districts of Orange and Los Angeles Counties and the cities of Los Angeles and San Diego.

Huntington Beach

The City of Huntington Beach coordinates the Huntington Beach Waterways and Beaches Committee, a public outreach task force engaged in tracking agency activities in the Huntington Beach area. The public at large is invited to the meetings in which staff from the City Council, Orange County (Environmental Management Agency, Health Care Agency, and Flood Control District), the U.S. Naval Weapons Station at Seal Beach, and Regional Board staff participate. Reports are given to update the activities and studies in which the above agencies are involved. One of the Committee's major concerns is water quality. The Committee is actively involved in public education and efforts to ensure compliance with holding tank requirements.

Newport Bay Watershed

Water quality problems in Newport Bay and its watershed and the activities in progress to address them are described briefly in Chapter 5 and, in more detail, in reports prepared in response to Senate Concurrent Resolutions (SCR) 38 and 88. Both SCR reports identify a plan for future action by the agencies and parties with responsibilities and interests related to water quality in the watershed. A major them of these reports is the need for continued interagency coordination to implement these action plans.

Towards this end, the Newport Bay Coordinating Council was formed. It includes representatives from the Regional Board, the Environmental Management and Health Care Agencies of Orange County, Senator Marian Bergeson's office, City of Newport Beach, Newport Harbor Quality Committee, California Department of Fish and Game, U.S. Army Corps of Engineers (Corps), Irvine Company, and various Newport Bay community action groups. The Council provides a forum for the exchange of information on and coordination of activities related to the Bay, from grass roots debris cleanups to the possible Corps dredging in the Upper Bay. The Council also sponsors public education and outreach programs.

Many of the representatives on the Coordinating Council are also members of the City of Newport Beach Harbor Quality Committee. The City of Newport Beach Parks and Recreation and Marine Departments are participants as well. This committee has been involved in many projects to educate the public on ways Newport Harbor water quality can be better protected. It has sponsored excellent outreach projects, such as the Baywatchers Program, and has distributed informational brochures identifying simple pollution prevention practices. The Committee assisted in the development of a pamphlet showing the locations of vessel pumpout stations in the Bay and was instrumental in the adoption of a city ordinance regarding vessel waste management for charter and tour boats. The Committee's action also led to a ban on the use of endosulfan in the Newport Bay watershed.

FUNDING PROGRAMS

Grant Programs

Clean Water Act §205(j) Water Quality Planning Grant Program

Section 205(j) of the federal Clean Water Act (CWA) allows each state to reserve up to one percent of its annual Clean Water Construction Grant allotment for water quality management and planning. In addition, Congress has provided funding under Section 604(b), State Revolving Fund Set Aside. Any interstate, regional or local public agency may apply directly to the State Water Resources Control Board for funding. As funds are available, State agencies and publicly-funded educational institutions may also apply.

Generally, the State Board requests a workplan on the project be submitted one year prior to the project's actual start date, due to the period of delay between submittal of the proposal and receipt of federal funding. The State Board notifies interested parties through a Request for Workplans notice. Currently, the workplans are evaluated and ranked according to specific criteria. The criteria include:

- Resource value of the waterbody
- Condition rating of the waterbody
- Whether/how water quality is addressed
- Feasibility of the workplan proposal
- Benefits expected from the work
- Cost of the work

- Applicant's Institutional/financial commitment to implement work products

- Applicant's capability to carry out workplan

The resource value and condition ratings have been calculated and usually are identified in the Water Quality Assessment factsheets. In all cases, there is a minimum 25 percent local funds match requirement for all 205(j)(2) funded projects. The match is calculated on the basis of the total project cost.

Clean Water Act §319 Nonpoint Source (NPS) Grant Program

The Clean Water Act (CWA) Section 319(h) provides grant funds for projects directed at the management of nonpoint source pollution. In California, the State Board determines which project receives Section 319 funds, with input from the Regional Boards. The amount of funds available is dependent upon Congressional Appropriations and therefore varies each year.

The State Board has placed highest priority on projects which implement specified nonpoint source management practices under Section 319 requirements. The State Board must also commit to address nonpoint source waters listed pursuant to CWA section 303(d) (water quality limited segments), and to the protection of high quality waters.

For fiscal Year (FY) 1994, the nonpoint source funds are to be used for the implementation of watershed management plans or strategies that will lead to coordinated water management, or for the demonstration of specific practices considered part of a watershed management effort.

Activities which reduce, eliminate, and/or prevent NPS pollution are eligible projects. The agencies eligible to receive Section 319 funds are those with the demonstrated authority to require implementation of the project (***e.g.***, Resource Conservation Districts). Examples of specific activities eligible for Section 319 funds include the demonstration of best management practices (BMPs) for agricultural drainage, acid mine drainage, acid mine drainage, channel erosion, hydrologic modification, groundwater protection, pollution prevention, and septic systems.

Generally, the State Board requests that a workplan on the project be submitted one year prior to the projects actual start date, due to the period of delay between submittal of the proposal and receipt of federal funding. The State Board notifies interested parties of the availability of finds through a Request for Workplans notice. The workplans are then evaluated and ranked according to specific criteria. The applicant is required to match the grant funds with a 40 percent nonfederal match. The State Board's NPS Program staff should be contacted to get other specific guidance on this grant.

Clean Water Act §314 Clean Lakes Grant Program

The Clean Lakes Program grant is similar to the CWA 205(j) program, but is specified under CWA section 314. Under the Clean Lakes Program, the US EPA, through the State Board, provides assistance in two phases. Phase I awards up to $100,000 per project for diagnostic feasibility studies and requires a 30 percent non-federal match. These studies must be completed in three years. The Phase II awards have no funding cap, but they require a 50 percent non-federal match. These funds are available to support implementation of pollution control and/or in-lake restoration methods and procedures, including final engineering design. These projects must be completed in four years.

Funding is also available for Lake Water Quality Assessment projects, which are projects intended to achieve any needed lake monitoring and assessment which would not otherwise be done. These grants require a fifty percent non-federal match.

All State and local agencies can participate in the 314 Program. Only projects dealing with publicly-owned lakes are eligible for funding. The lake must also be prioritized for remediation by the State, which is demonstrated by placement on the 314 list of impacted water bodies in the Water Quality Assessment.

Currently, procedures require State Board staff to evaluate the proposed projects and draft a project priority list to be brought before the State Board. The State Board adopts and submits the list to the US EPA, which determines the final priority projects for funding.

Small Communities Grant Program

The 1987 amendments to the CWA terminated the federal Clean Water Grant Program but provided for the use of federal funds to capitalize State Revolving Fund (SRF) loan programs (see SRF discussion below). California voters recognized that many small communities would not be able to afford the higher costs of the SRF Program and passed the Clean Water and Water Reclamation Bond Law of 1988. The Clean Water Bond Law contains 25 million dollars in State grant assistance for small communities. The program defines a small community as less than 3,500 people. No grant under this program can exceed 2 million dollars. The Law also states that the State Board may make grants on a sliding scale based on a community's ability to pay.

The Small Communities Grant (SCG) Program provides only the funds to make a wastewater treatment project affordable. It is assumed that a community can afford to spend a certain percentage of its Median Household Income (MHI) calculated, the higher the percentage the community can afford to spend for wastewater facilities. If a community's treatment costs exceeds what the program assumes is affordable, the SCG Program will provide up to 2 million dollars to reduce the costs to make the project more affordable.

A community can receive a SCG for up to 97.5 percent of the allowable project costs and is also eligible to apply to any other State or federal agency to fund the local share of the project costs. A low interest loan from the SRF Program may be obtained, for example, if the project is on the SRF Loan Priority List. If funding is not available for the local share from any source at a reasonable cost, the community may apply for a low interest loan from the Water Quality Control Fund. The combined assistance can not exceed 100 percent of the total project costs.

There are many requirements to receive a SCG. Briefly, the project must be submitted to the Regional Board for placement on a Regional Board SCG Priority List. The project is classified according to the need for a sewage treatment facility. The Regional Board SCG lists are compiled for State Board adoption and further prioritized according to several criteria. There are other restrictions and specific provisions a grantee must satisfy, as specified in guidelines provided by the State Board.

The State Board may use a portion of the SCG to fund pollution study grants. The SCG Program will fund up to 97.5 percent of the eligible costs for an approved pollution study. The objective of the study must be to document the existence of an actual or potential public health or water quality problem.

Loan Programs

State Revolving Fund (SRF) Loan Program

The SRF Loan Program provides funding for construction of publicly-owned treatment works (POTWs), for nonpoint source correction programs and projects, and for the development and implementation of estuary conservation and management programs. Water reclamation projects are also eligible for SRF funding. The loan interest rate is set at one-half the rate of the most recent sale of a State general obligation bond.

Proposed projects must be submitted to the Regional Board for placement on a Regional Board SRF Priority List. Projects are classified and ranked according to several criteria, including documented health problems, conformance with applicable Water Quality Control Plans, and/or compliance with waste discharge requirements. The Executive Officer can directly submit the list to the State Board. The State Board adopts the Statewide Priority List, after which the funds are available on a first-come, first-served basis.

There are other restrictions and specific provisions which the SRF prioritized projects must satisfy; the State Board's Clean Water Program staff should be contacted for a copy of the guidelines.

Agricultural Drainage Water Management Loan Program (ADLP)

The State Agricultural Drainage Water Management Loan Program is funded with a $75 million bond fund. The program funds are available for feasibility studies and the design and construction of agricultural drainage water management projects. The interest rate is set at one-halt the rate of the most recent sale of a general obligation bond. The loan term is not to exceed 20 years. The loan limitations are $20 million for any one project and $100,000 dollars for each feasibility study.

Only local agencies can apply for this loan. The project must remove, reduce, or mitigate pollution from agricultural drainage. The specific types of projects funded include agricultural drainage projects such as evaporation ponds and deep injection wells, selenium removal project, cleanup of groundwater contaminated form agricultural practices, and agroforestry projects. In this region, projects which have acquired ADLP funds include SAWPA's Arlington Desalter and the Chino Basin West Desalter.

The loan application is obtained from the State Board's Division of Water Quality. The completed loan application is submitted with the project planning documents. Upon completion of the loan contract, the applicant submits the final plans and specifications for the project.

Water Reclamation Loan Program

This program makes available low-interest loans for the design and construction of water reclamation projects. The objective of this program is to meet a portion of the future water needs for California through the use of reclaimed water. Projects funded must be cost-effective compared to the development of new sources of water or alternative new freshwater supplies.

As of July 1, 1989, $33 million were available for use only by local public agencies. The funds are augmented annually by loan repayments. The loan interest rate is set at one-half the rate of the most recent sale of the State general obligation bond. The loan term may not exceed 20 years, with up to $5 million available for any one project. Eligible projects include the wastewater treatment facilities necessary to produce water for beneficial reuse, as well as reclaimed water storage and distribution systems. Only that capacity of wastewater which can be used within five years of the completion of construction is eligible.

A loan application package may be obtained from the State Board's Office of Water Recycling. The completed application is submitted with the project planning documents. Projects with complete application packages are funded on a first-come, first-served basis.

Water Quality Control Fund (WQCF) Loan Program

The WQCF Loan Program is a special set-aside intended only for the construction of wastewater treatment facilities or for wastewater reclamation loan feasibility studies. Approximately 6 million dollars are available with the interest

rate set at one-half the average rate paid by the State on general obligation bonds sold in the preceding year.

This program's eligibility requirements state that the applicant must hold a local election with a simple majority approving the application for the loan. In addition, the applicant must demonstrate that: 1) revenue or general obligation bonds cannot be sold; 2) financial hardship exists; and 3) local funding is not available.

The State Board's Division of Clean Water Programs is the contact for a loan application. The application is submitted with the documents which demonstrate financial hardship, lack of the local share, and the election results.

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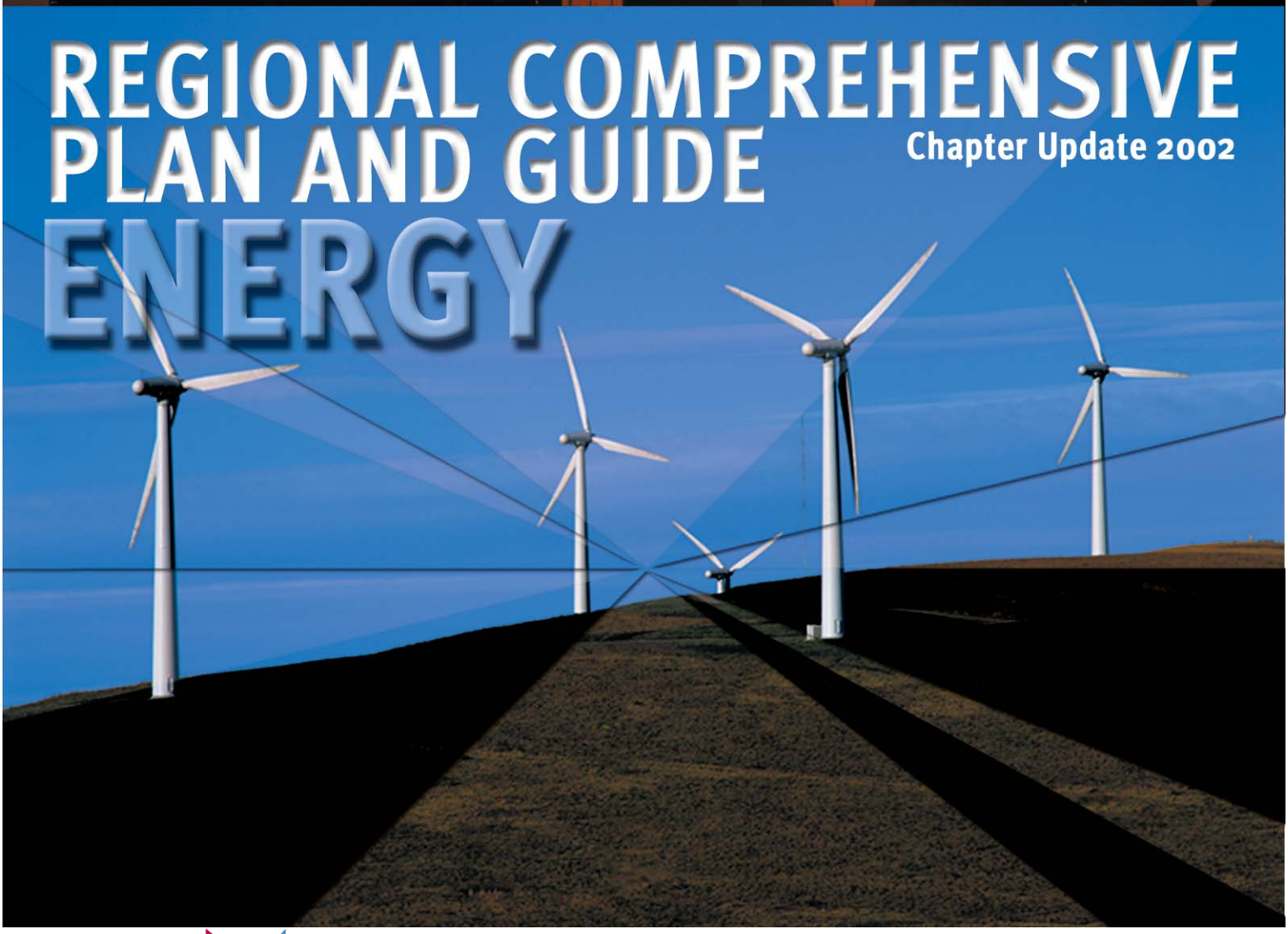
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REGIONAL COMPREHENSIVE PLAN AND GUIDE

Chapter Update 2002

ENERGY



SOUTHERN CALIFORNIA **ASSOCIATION** of **GOVERNMENTS**



1555 9/02

ENERGY
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List of Abbreviations and Acronyms

AB – Assembly Bill
ABAG – Association of Bay Area Governments
BGP – Burbank, Glendale, and Pasadena
CA – California
CADER – California Alliance for Distributed Energy Resources
CARB – California Air Resources Board
CEC – California Energy Commission
CEERT – Center for Energy Efficiency and Renewable Technologies
COG – Council of Governments
CHP – Combined heat and power
CO – Carbon monoxide
CPA – California Power Authority
CPUC – California Public Utilities Commission
DCA – Department of Consumer Affairs
DG – Distributed Generation
DER – Distributed Energy Resources
EE – Energy Efficiency
FERC – Federal Energy Regulatory Commission
HOV – High occupancy vehicle
IID – Imperial Irrigation District
IRP – Integrated Resource Planning
IOU – Investor-owned utility
ISO – Independent System Operator
LADWP – Los Angeles Department of Water and Power
MTBE – Methyl tertiary-butyl ether
MW – Megawatt
NAFTA – North American Free Trade Agreement
NREL – National Renewable Energy Laboratory
NOx – Nitrogen oxides
PG&E – Pacific Gas & Electric
PM – Particulate matter
POWER – Preserve Our Widely used Energy Resources
PURPA – Public Utilities Regulatory Policies Act
QF – Qualifying facility
REEI – Regional Energy Efficiency Initiative
REO – Regional Energy Office
ROG – Reactive organic gases
RCP & G – Regional Comprehensive Plan & Guide
RTP – Regional Transportation Plan
SANDAG – San Diego Association of Governments
SB – Senate Bill
SCAG – Southern California Association of Governments
SCAQMD – South Coast Air Quality Management District
SCE – Southern California Edison
SCPPA – Southern California Public Power Authority
SOx – Sulfur oxides
TEOR – Thermally enhanced oil recovery
TOG – Total organic gases
VMT – Vehicle miles traveled

Executive Summary

The Southern California Association of Governments (SCAG) adopted a Regional Comprehensive Plan & Guide in the mid-1990s. The Guide included a non-mandated chapter on energy resources in the region. This document represents an update to that chapter, which was supplied by the California Energy Commission and covered electricity, natural gas, and petroleum (transportation fuels).

Since the mid-1990s, much has changed in the state's and the nation's energy picture. At the national level, there is renewed interest in energy security following the terrorist attacks of September 2001. In California, the state continues to struggle with the fiscal impacts of a largely unsuccessful attempt, starting in 1998, to deregulate the electricity market. Temporarily tight natural gas supplies contributed to the electricity "crisis" the state experienced from mid-2000 through early 2001. In response to 2000 legislation, the state is also seeking ways to reduce dependence on petroleum as a transportation fuel.



In the SCAG region, electricity demand increased 16% during the 1990s, and is projected to continue to grow at about 2% per year, roughly keeping pace with projected population growth. Natural gas demand grew more steeply, increasing 35% during the 1990s. This growth is attributed to fuel switching from oil to cleaner-burning gas in response to stricter air quality standards. Less dramatic demand growth – approximately 11% overall – is projected for the next 10-20 years. Petroleum product demand in the region is expected to continue to grow 35-40% by 2025, roughly keeping pace with population growth and increases in vehicle miles traveled.

It is clear that energy use has dramatic environmental and public health implications, even though data is far from complete. Air pollution from mobile sources and stationary sources such as power plants has been linked to increased mortality and cancer risk. Fuel spills continue to foul beaches, waterways, soils, groundwater, and the ocean. Power plants use water and can affect wildlife habitats, as can other energy infrastructure.

The SCAG region can pursue alternative energy sources and energy conservation measures to serve a growing population without necessarily increasing energy use or cost. To accomplish

this goal, the region needs to undertake an integrated resource planning effort that takes into account the sources and external costs of energy. This type of planning will enable more informed energy policy decisions. At the same time, the region would benefit from supporting state efforts to develop energy goals so that local initiatives are more coordinated, and, ultimately, help provide reliable, secure, and safe energy at the lowest possible cost.

I. Introduction

Background

In 1996, the Southern California Association of Governments (SCAG) adopted a Regional Comprehensive Plan & Guide (RCP&G). This document incorporated a number of mandatory and voluntary regional plan elements. For example, it incorporated a summary of the Regional Mobility Element, a required plan element that met SCAG's obligation as a metropolitan planning organization to prepare a Regional Transportation Plan. Voluntary (non-mandated) chapters of the RCP&G included sections on public finance, water resources, open space and conservation, and energy.

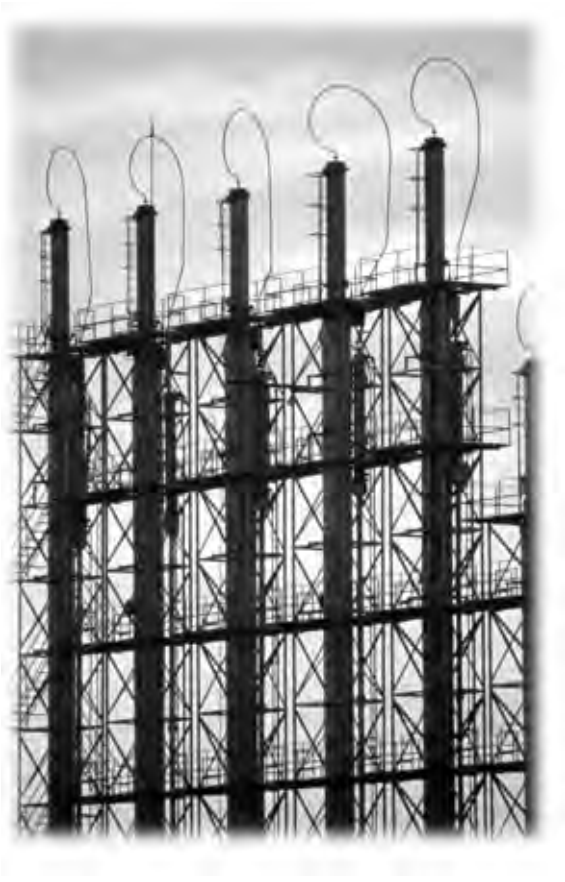
The energy chapter was written in 1994 by a team of consultants hired by the California Energy Commission (CEC), and was provided to SCAG staff for incorporation into the final document. The adoption date of the energy chapter was November 1994; the chapter's scope included electricity, natural gas, and petroleum (transportation fuels). A more complete summary of the prior chapter is given below.

Summary of the Prior Energy Chapter

The purpose of the original energy chapter was to provide regional and local decision-makers with an understanding of the pervasive role that energy plays in the Southern California economy, and to serve as a guide to energy efficiency opportunities that can be implemented by local and regional officials.

The chapter included a snapshot of electricity, natural gas and petroleum use in 1990 for the SCAG region. Energy use forecasts for 2000, 2010, and in some cases 2015 were also provided. Population and economic growth were the driving forces for increases in energy demand. From 1990 to 2010, the region's population was expected to increase over 40 percent, generating an increasing demand for energy. By 2010, regional peak demand for electricity was expected to increase by 44 percent and annual electricity use to increase by more than 40 percent over 1990 demand. Natural gas and petroleum product fuel use were likewise projected to increase, though at slower rates.

The chapter also identified environmental and infrastructure implications of this growing demand for energy. For example, data were presented on natural gas and petroleum combustion emissions of nitrogen oxides (NOx), sulfur oxides (SOx) and reactive organic gases (ROG). The infrastructure needed to accommodate growing energy demand included electricity generation



facility additions and repowerings, additional transmission lines and facilities and transportation network improvements.

The nucleus of the chapter was a comprehensive assessment of 18 local efficiency measures aimed to reduce costs, environmental impacts, and security risks associated with the growing energy demand in the SCAG region. These measures focused on four major areas: buildings and appliances, land use, movement of people, materials, and information, and infrastructure. The assessment provided an evaluation of the efficiency measures' impacts, including energy use and emissions avoided, and included implementation strategies.

Overall, the prior chapter contained useful information and analysis, but changing conditions and increasing uncertainty necessitate updating the chapter. Thus, the purpose of this Energy Chapter Update is to incorporate new information and to draw attention to the need for more certainty about the region's long-term energy supply and demand.

The Need for Updating the Energy Chapter

In September 2001, the nation came under attack by terrorists from the Middle East, one of the country's largest sources of imported petroleum.[1] This event, along with continuing unrest in that region, has helped to create new concerns about American dependence on petroleum and has renewed national interest in energy policy.

Much has changed in California's energy situation since the original chapter was written. For example, in the mid-1990s California joined many other states in deregulating its electricity market, though its experience has been among the least successful. The nation's and the state's natural gas markets continued to adjust to deregulation in the mid-1980s. New transportation technologies advanced to the point where alternative fuels are nearing cost-competitiveness with traditional fuels.

In 1996 the state legislature passed Assembly Bill 1890, restructuring the electricity market, and the law took effect in 1998. At first, the market seemed to be functioning well, but beginning in 2000, electricity demand began to catch up with supply. This combined with a number of other factors to produce price spikes and rolling blackouts. The state's responses to the power crisis have dismantled much of the deregulation effort and continue to have severe budgetary implications.

The restructuring effort has created additional challenges for energy planning. Largely as a by-product of market restructuring, less energy data is available and less planning is done, since in theory, market forces would have "planned" our energy supply and demand. Before AB 1890, the CEC and California Public Utilities Commission (CPUC) would collaborate in forecasting power demand and supply, i.e., licensing of new projects. They no longer conduct the same process, and the CEC's forecasts go only 10-12 years into the future, despite the fact that energy infrastructure can take longer than this to plan and develop. Even the investor-owned utilities have scaled back their energy forecasting efforts, though they still conduct business planning on various time horizons.



The chapter's scope also includes transportation fuels, and there is considerable uncertainty here as well. For example, petroleum price spikes are not uncommon in the California market. Furthermore, there is little agreement on forecasted adoption rates for alternative-fuel vehicles, but the progress of new transportation technologies – electric cars, hybrids, fuel cell vehicles – has substantial implications for energy demand, air quality, and transportation finance.

Another energy planning challenge is to consider the context of regional growth visioning. Energy infrastructure uses land; new land use (development) generates demand for electricity, natural gas, and transportation energy. Electricity planning by utilities, for example, cannot be expected to consider the full range of social, environmental, and economic costs of various growth scenarios – dispersed growth patterns vs. compact or transit-oriented development, or other approaches. Energy planning may be like water resources planning – involving costly infrastructure, public and private interests, and long planning horizons – with the added complication that electricity cannot be stored.

Scope of the Chapter Update

This chapter presents data on current electricity use (2000), natural gas use (2000), and petroleum fuel use (1997) for the SCAG region, as well as forecasted energy use as far in the future as projections are available.

Electricity use data were provided by the California Energy Commission (CEC), Southern California Edison, the Los Angeles Department of Water and Power, and the Southern California Public Power Authority. SCAG region electricity forecasts are presented for 2012, the latest year now available from the CEC (prior chapter forecasts went to 2015).

Natural gas use data were provided by the California Energy Commission and were also taken from the California Gas Report, a joint product of the state's natural gas utilities overseen by the California Energy Commission and the California Public Utilities Commission. Forecasts are presented for 2020, the latest year in the Gas Report.

Current (1997) and future projected (2025) petroleum fuel use are estimated based on vehicle miles traveled (VMT) as presented in the adopted 2001 Regional Transportation Plan (RTP). Additional transportation energy forecasts are presented for natural gas usage in vehicles, and there is a discussion of trends in transportation energy usage based in part on joint work by the CEC and the California Air Resources Board.

The energy efficiency analyses done for the prior chapter are still generally valid and are not repeated. The prior chapter is cited as a resource. New information is given about current energy efficiency efforts and priorities at the state and regional level, along with resources for further information to assist cities and counties in evaluating their options.

Continuing uncertainty in the California power market makes this update more difficult and its conclusions less reliable (or reliable only as a snapshot). These uncertainties in California's energy situation and the recent changes in the planning arena indicate a need for energy planning at the regional level. This type of planning can

- help identify whether energy demand will exceed supply in the region
- clarify trade-offs among the environmental, social and economic benefits and costs of various energy policies or choices
- identify and publicize energy efficiency opportunities
- help local jurisdictions design and implement energy policies
- enable informed regional decision making about energy policies.

Lastly, the development of this chapter update has proceeded with the assistance of a Regional Energy Advisory Group consisting of members from various public, private, and non-profit groups.

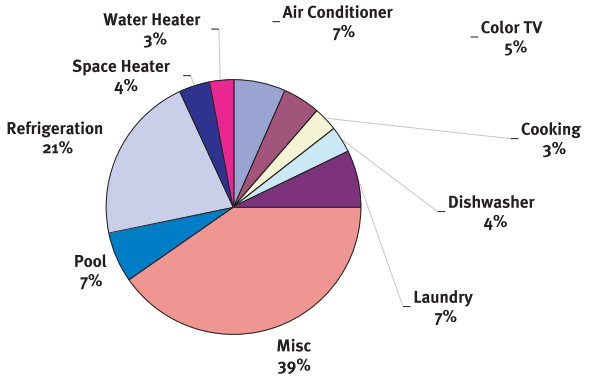
II. Current SCAG Region Energy Use

Energy is purchased because it provides an essential or desired service – personal comfort, transportation, light to see by. In 2000, SCAG region residents used electricity to provide energy services such as refrigeration (21% of residential electricity), washing laundry (7%), air conditioning (7%), and pool heating (7%; see Figure 1). Within the "miscellaneous" category, about half the power is consumed by lighting, and the remainder by other small household appliances. In the industrial and commercial sectors, lighting, motors, and cooling are the largest electricity users (see Figure 2), and are, thus, the best opportunities for energy efficiency.

Water and space heating represent the largest residential portion of natural gas energy services, using almost 2/3 of residential natural gas in the region (see Figure 3). In the industrial and commercial sectors, boilers and process heat are the two largest uses of natural gas (see Figure 4).

Figure 1

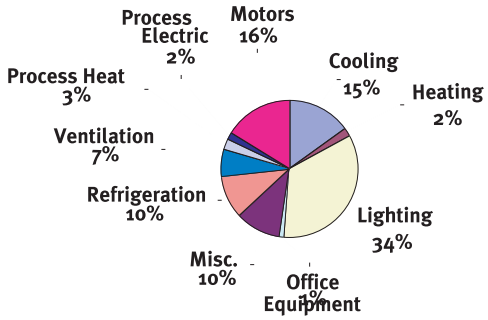
SCAG 2000 Residential Electricity Use



Source: CEC, California Energy Demand 2000-2012 Forecast, September 2001.

Figure 2

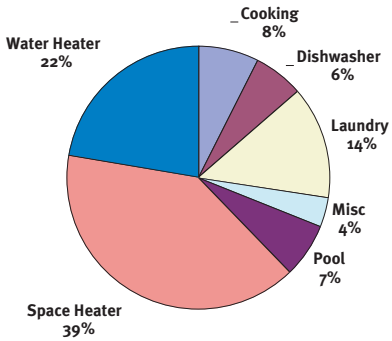
SCAG 2000 Industrial & Commercial Electricity Use (million kWh)



Source: CEC, California Energy Demand, 2000-2012 Forecast, September 2001.

Figure 3

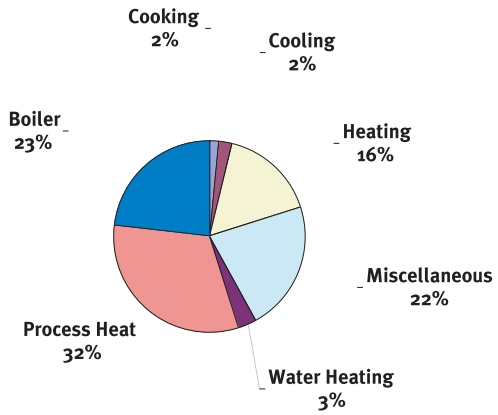
SCAG 2000 Residential Natural Gas Use



Source: California Energy Demand, 2000-2010, June 2000.

Figure 4

SCAG 2000 Industrial & Commercial Natural Gas Use
(million therms)



Source: CEC, California Energy Demand 2000-2012 Forecast, September 2001.

Electricity



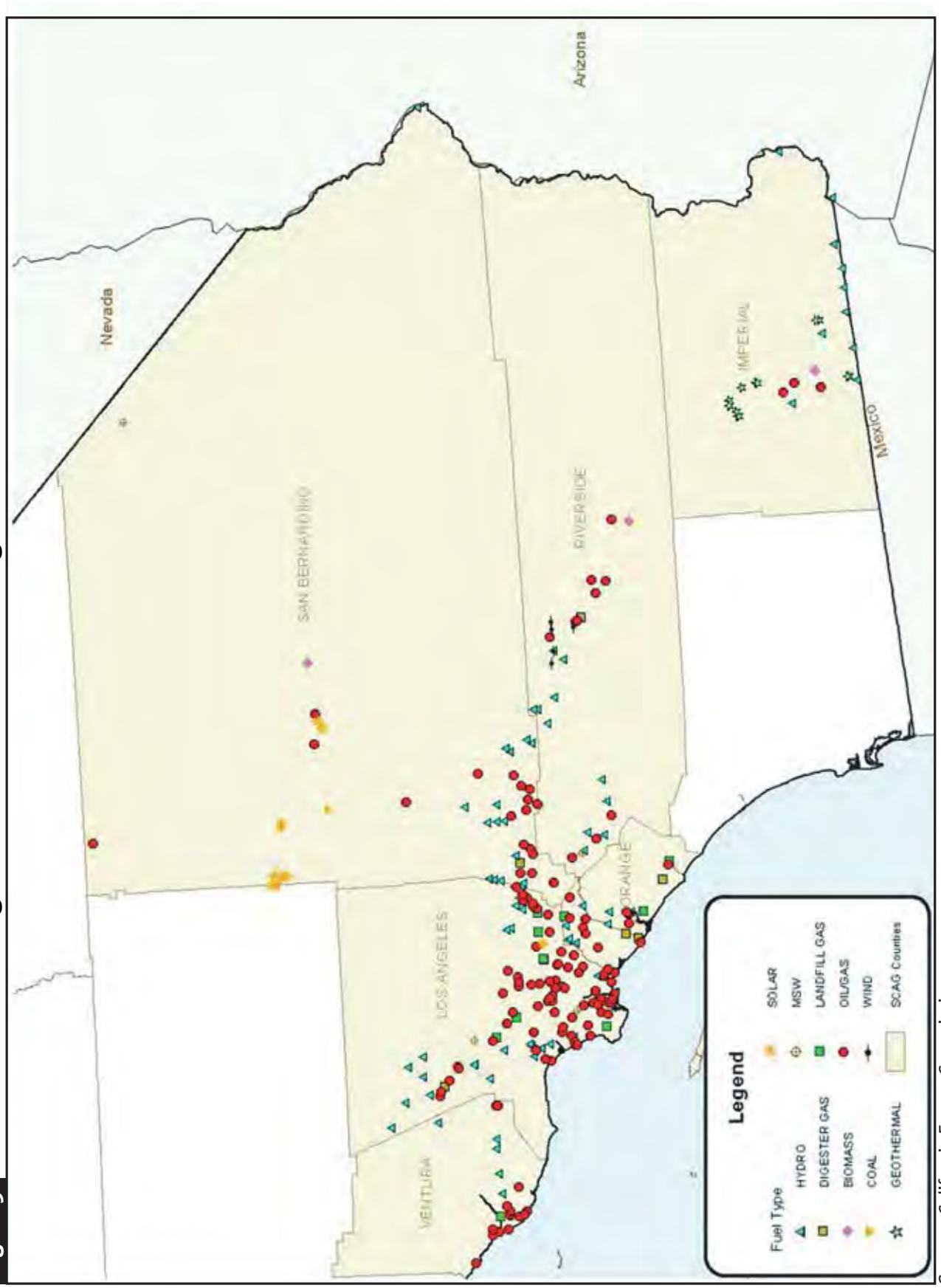
The SCAG region's electricity needs are served by both private and public utilities. Municipal utilities (see Table 1) provide about 35% of the power in the region, compared with only about 10% statewide. Southern California Edison, an investor-owned utility, serves most of the balance of the region.[2] Figure 5 shows the locations of the power generation facilities in the SCAG region, including all energy sources and technologies. Appendix A contains a table listing all the generating facilities in the SCAG region in order by county, then by primary fuel type.

Table 1. Municipal Utilities Serving the SCAG Region

	FY 2001: July 1 - Jun 30	
	Peak MW	**GWh**
LADWP	5,942	26,120
IID	711	3,008
City of Pasadena (Water and Power)	275	1,191
Glendale	300	1,150
Burbank	302	1,257
Riverside	470	1,900
Vernon	190	1,200
Anaheim	608	3,256
Azusa	55	250
Banning	37	126
Colton	72	345
Total	**8,962**	**39,803**

Source: Southern California Public Power Authority, 2/20/02

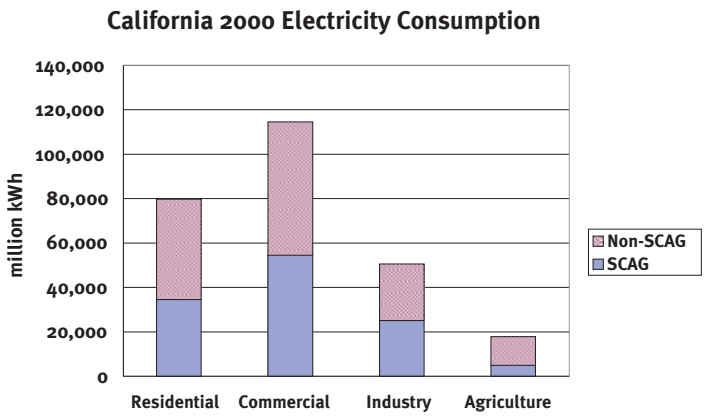
Figure 5 Power Generating Facilities in the SCAG Region



Source: California Energy Commission

As of 2000, the SCAG region's electricity usage totaled approximately 120 million kilowatt-hours (kWh) per year, about 45% of the statewide total usage of about 260 million kWh/year (see Figure 6). In 1990, by comparison, the region used just under 105 million kWh. In the SCAG region, and for the state as a whole, the commercial sector is the biggest electricity user and the agricultural sector the smallest.

Figure 6



Source: Quarterly Fuel and Energy Report

Since the prior energy chapter was written, California has become one of several states to restructure and partially deregulate its electric generation industry. As in other states, the goal was to provide more choice and lower cost for power consumers. For a variety of reasons, California's experience with restructuring has been largely unsuccessful. A flawed market design and concurrent demand growth were two major factors that contributed to power supply disruptions and sharp price increases in 2000 and 2001. In response, the state has suspended some of the market changes, at least temporarily.

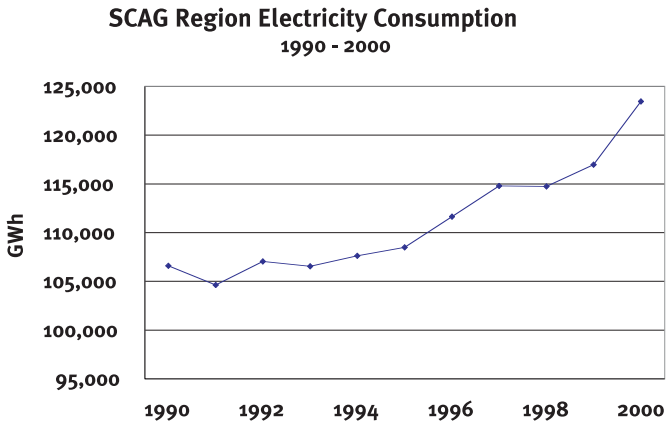
A brief discussion of California's energy deregulation experience follows, including its implications for the SCAG region. For a more complete analysis, refer to reports such as those by the Congressional Budget Office[3] and Resources for the Future[4] or to the California Energy Commission's Electricity Outlook Report[5] or other CEC reports.

Electricity Restructuring in California

California's restructuring law, most often referred to as Assembly Bill (AB) 1890, was passed in 1996 and began to take effect in 1998. In concept, it opened retail power sales to competition and divested most generation facilities from the investor-owned utilities. Transmission and distribution remained state-regulated. To smooth the transition to retail deregulation, retail power prices were capped until the investor-owned utilities (IOUs) had recovered certain stranded costs associated with implementing the new law. Municipal utilities were not required to participate in the restructuring.

During the 1990s, power demand had been growing throughout California and the West, fueled by population increase as well as by growth in the economy and the boom in computer- and power-driven e-commerce. The SCAG region's growth in power demand was similar to that of the state as a whole; it reflects the somewhat later easing of the early 1990s recession in this area, beginning to rise only after 1995 (see Figure 7). While demand grew, little new generation was being built in the state, possibly due in part to uncertainties arising from the state's imminent restructuring. Power reserves began to shrink.

Figure 7



Source: California Energy Demand Forecast, Sept. 2001

In mid-2000, San Diego Gas & Electric became the first of the state's three IOUs to recover its costs and move to unregulated retail rates. Prices in its service area tripled that summer, thanks in part to an increase in natural gas prices and a concurrent dry spell in the region, which caused a shortage of inexpensive hydropower in the western states.

Problems with power supply cost and reliability were not, unfortunately, limited to San Diego. By the end of 2000 and into the beginning of 2001, the state's power reserves frequently dwindled to levels where the California Independent System Operator (ISO) was forced to call alerts at Stage 1 (real-time reserves below 7%), Stage 2 (reserves below 5%), and even Stage 3 (reserves below 1.5%).[6] The ISO declared one Stage 3 alert in December 2000 and 38 more in 2001, nearly all in January and February of that year.[7] The state experienced rolling blackouts on six occasions in early 2001, though most were in Northern California.

The California power crisis, as it came to be known, was even more surprising since it occurred in winter, normally not the season in which power demand peaks in the state. It is, however, frequently the season in which generating units are taken off-line for maintenance. The parts of the state most acutely affected by these problems were outside the SCAG region: in particular, San Diego and portions of the Bay Area are dependent on inadequate transmission lines to bring in power, and suffered the majority of actual power outages. However, the San Gabriel Valley was also affected by power outages.

Along with a tightening of supply came an increase in price. Under the restructured market, the IOUs were expected to buy power from independent generators and could not enter into long-term contracts to buffer spot price fluctuations. In late 2000 and early 2001, prices rose to the point where the IOUs experienced difficulty maintaining creditworthiness. With retail prices still capped, but wholesale prices soaring to $200/MWh and more, Pacific Gas & Electric declared bankruptcy in April 2001. Southern California Edison neared bankruptcy as well, but avoided it by structuring a deal with the Public Utilities Commission that took advantage of descending prices in the summer of 2001.

The state legislature reacted to the power crisis by convening two extraordinary sessions and enacting several measures to encourage energy efficiency, particularly peak demand reductions. One of the most notable of the laws, AB 970, established several new state-funded renewable energy and energy efficiency programs (see Section V for a more detailed discussion). The state also rolled back some of the restructuring law's retail price controls, and appealed to the Federal Energy Regulatory Commission (FERC) to impose caps on wholesale prices. The FERC imposed a partial cap in 2000, but exceptions allowed prices to continue to rise, and the agency imposed a stricter cap in June 2001.[8]



To assist the state's struggling IOUs, who could not borrow the funds to buy power, the Governor empowered the state Department of Water Resources to buy power on their behalf. Power purchase contracts negotiated during the first months of 2001, however, often reflected the still very high short-term prices for power. The state continues to struggle with the budget impacts of these power purchase contracts, even as consumers may be relaxing their energy efficiency efforts as prices subside. State and federal officials are investigating whether independent energy producers manipulated supply to drive up prices, and California officials have sought a refund of up to $9 billion in energy charges from the early part of 2001.

Another state response to the energy situation was to create a new public power authority, the California Consumer Power & Conservation Financing Authority, in mid-2001. The CPA, as it is called, was envisioned as a "fire wall between energy instability and energy self-sufficiency."[9] Its legislative mandate is to furnish the citizens of California with reliable, affordable electric power, to ensure sufficient reserves, and to encourage energy efficiency, conservation, and the use of renewable resources. The CPA has produced an Energy Resource Investment Plan that describes financing for clean energy, strategic reserves, and "greening" public buildings' energy use.[10]

The CEC's Electricity Outlook Report projects that the state's power market may encounter reliability and price stability problems in the long term if the budget issues and the current market structure are not addressed.[11]

As noted above, a substantial portion of the SCAG region is served by municipal utilities. These utilities were not required to divest assets or otherwise participate in the restructuring program, and this served the SCAG region well. The LADWP in particular was able to serve its customers without interruption, and even sold power to the state. Of course, the continued stability of Southern California Edison is still critical to a majority of the region's residents, and it remains in the region's interest to have a stable, predictable, and reliable price and supply of power.

Energy Sources

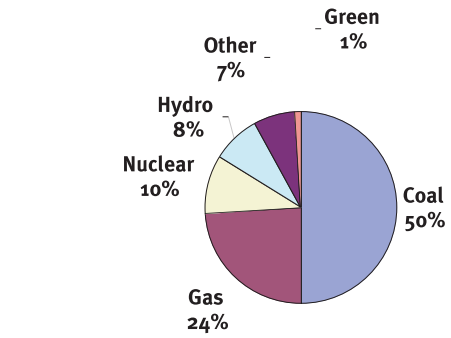


The reliability of electricity supply depends, in part, on where the energy comes from. The greater the diversity of energy sources, the greater the reliability. In recognition of this fact, Congress passed the Public Utilities Regulatory Policies Act (PURPA) in 1978. PURPA was the nation's first attempt to encourage non-utility power generation and alternative energy, particularly in the wake of the 1970's national energy crisis. The act defined "qualifying facilities" (QFs) as those that used alternative or renewable energy sources, provided financial incentives for their installation, and required utilities to sign long-term power purchase contracts with QFs. The CPUC also adopted contract incentives to assist QFs.

Facilities built in the SCAG region in response to this act include wind and solar installations in Riverside and San Bernardino Counties, as well as a number of cogeneration units around the region. Original provisions of PURPA also encouraged the construction of biomass-to-energy facilities, which use materials such as agricultural and wood waste as fuel for energy production. However, changes to the law in the mid-1990s sharply reduced the number of biomass-to-energy facilities in the state and the amount of power they provide.[12] The CEC identifies only three biomass-to-energy facilities in the SCAG region today.

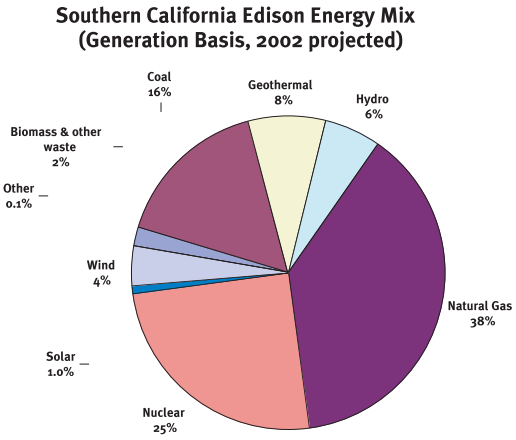
Conventional fossil-fuel power plants still provide most of the SCAG region's power, with coal and natural gas being the two most common fuels. In the aggregate, the region's municipal utilities, according to data from the Southern California Public Power Authority, provide a much larger portion of electricity from coal than does Southern California Edison (see Figure 8 and Figure 9). According to projected 2002 figures, Edison's largest sources of energy are natural gas (38%) and nuclear power (25%). Equal portions of Edison's power come from coal (16%) and renewables (16%). The SCPPA resource mix is largely due to the overwhelming contribution of LADWP (see Table 1), whose coal-fired plants provide about 50% of the utility's power but are located outside California.

Figure 8



Source: SCPPA, 4/16/02

Figure 9



Source: Southern California Edison, 6/2002

Deregulation is another factor in the availability of energy from alternative sources. Providing consumers with a choice of power sources from independent power producers was, of course, one goal of the state's restructuring effort. During the first few years of restructuring, "green" power suppliers from all over the country marketed power, often at slightly higher rates, to California customers. However, these private retailers withdrew as the market slipped into chaos.

Of the municipal power suppliers, the Los Angeles Department of Water & Power has been the most aggressive in marketing renewable power through its "Green Power for a Green LA" program.[13] As of May 2000, 45,000 customers had signed up for the program, which provides power from sources such as biomass and geothermal. The Department's 2000 Integrated Resource Plan adopts a policy of environmental leadership (on an equal footing with reliable service and competitive price) and envisions providing 150 MW of "green" power by the plan horizon year of 2010.[14]

According to Southern California Edison's website, one-third of the power sold in its service territory (much of which coincides with the SCAG region) comes from QFs (see Table 2).

Table 2. Southern California Edison Energy from Qualifying Facilities

Technology	MW Under Contract
Biomass	256
Cogeneration	2,299
Geothermal	763
Small Hydro	98
Solar	379
Wind	1,138

Source: SCE website, Regulatory Info Center, Qualifying Facilities, Renewable and Alternative Technologies

If California resumes its move towards deregulation, consumers may once again enjoy a broader choice of energy sources. At the same time, predicting where actual energy supplies come from will be more difficult as even large providers like Edison buy power on the open market.

As the foregoing figures show, relatively little of the SCAG region's electricity comes from truly renewable sources. For Edison in 1999, wind provided 5% of capacity, geothermal and biomass each 2%, and solar less than one percent of capacity. The municipal utilities, according to SCPPA, provided only 1% of energy from renewables in the most recent fiscal year. The California Power Authority cites a recent study by the Electric Power Research Institute that "centralized" renewable power (large installations at the energy source) could provide power for as little as 6.9 cents/kWh, a competitive price with conventional power sources.[15]

The state has considered adopting a "renewable portfolio standard" that would call for a certain percentage of electricity to come from renewable sources, but as of this writing, no standard has been adopted in legislation. Governor Gray Davis has expressed support for increasing California's share of renewable energy to 17% by 2006, as well as for proposals to set a renewable standard up to 20%.[16] In early 2002, a coalition of environmental and consumer groups put forward a proposal to renegotiate some of the state's power purchase contracts so as to increase the share of power coming from renewable sources from under 2% to 15-20%, among other goals.[17]

Distributed Generation

A closely related approach to energy reliability – and quite possibly to environmental improvement – is distributed generation (DG), also referred to as distributed energy resources (DER) or self-generation. Definitions of DG or DER vary, making it difficult to accurately characterize the extent of its use. The California Energy Commission has defined distributed generation to mean "electric generation connected to the distribution level of the transmission and distribution grid usually located at or near the intended place of use."[18] Self-generation refers to systems owned by the customer and installed on their side of the meter to supply power on site. Often, demand-side management (DSM) measures are included in consideration of distributed generation.[19] DG can cost-effectively displace or delay the need for new electricity infrastructure.

DG contributes to energy reliability and energy security. Power users who can generate their own power are less dependent on the central grid, and can reduce peak load at times of high demand. DG users are thus less vulnerable individually to system-wide outages. Furthermore, distributed energy resources reduce the importance of large, central power generating stations that could make potential targets for terrorists. Similarly, they also can reduce the vulnerability of the power transmission and distribution system.

Depending on the type of technology, distributed energy resources may also provide environmental benefits, potentially regionally as well as locally. This is particularly true of photovoltaic (solar) installations, wind turbines, and fuel cells. Biomass-to-energy facilities can also result in reduction of environmental impacts relative to other means of organic waste disposal. Even though microturbines are often fossil-fuel-fired, the latest systems are very low-emitting. Several have been placed around the SCAG region in biomass applications (using landfill gas) in projects funded by the SCAQMD.



Distributed generation installations can also provide opportunities to improve resource efficiency through waste heat recovery. Another term for this practice is "combined heat and power" (CHP), also referred to as cogeneration, which simply means the capture of useful thermal energy at the same time electrical power is produced. This practice can increase the efficiency of energy production from approximately 33% to over 70%, with clear environmental benefits.[20] While CHP need not necessarily be applied in conjunction with DG, it is integral to the design of systems referred to as micro- or mini-grids or power parks: a local cluster of power generators and users (residential, industrial, or otherwise) with a single connection to the main power grid. This model, also called district power, was once common in municipal power generation and is enjoying renewed interest by the U.S. Department of Energy,[21] the CEC, and DG advocates.

A small portion of the SCAG region's electrical power is currently provided by distributed energy resources. According to the California Energy Commission's Distributed Generation Strategic Plan, there are over 500 installations totaling 766 MW of operational DG in Southern California Edison's territory, with another 215 MW proposed.[22] The LADWP 2000 Integrated Resource Plan identifies an additional 4 MW of DG "projected for" 2001, consisting of 1 MW of fuel cells and 3 MW of photovoltaics.[23] No further data is available on the extent of distributed energy resources in the SCAG region: for example, in other municipal utilities' service areas. The Office of Ratepayer Advocates (within the Public Utilities Commission) is collecting data for future publication.

The limited use of DG in the SCAG region reflects a number of barriers that have slowed the adoption of DG nationally. According to the National Renewable Energy Laboratory, barriers include the following:

- Relatively small projects may face high fees, long approval processes, or burdensome insurance requirements. An example is high backup or standby charges, which a utility collects to cover the cost of providing power when the DG system is not operating. Another is exit fees, which are levied on customers leaving the grid to compensate the utilities for the stranded cost of generating facilities.
- There is no national consensus on standard interconnection practices, so each project must go through a unique process, pay different charges, and meet different technical and safety standards. This may partly reflect utilities' lack of experience with DG projects, but could also stem from an understandable reluctance to lose part of their customer base.
- There is often no way to recognize the environmental or social benefits of DG projects – an important lack of incentive.[24]

The California Public Utilities Commission, through a current rulemaking process, has modified provisions of its Rule 21, which governs utility tariffs. In particular, "[i]n order to ensure that unnecessary barriers to deployment of distributed generation are removed, the Commission adopted standards to simplify and standardize interconnection requirements and associated fees governing interconnection of distributed generation facilities."[25] Perhaps in anticipation of the removal of some of these barriers, the LADWP envisions installing 70 MW of DG by 2010.[26]



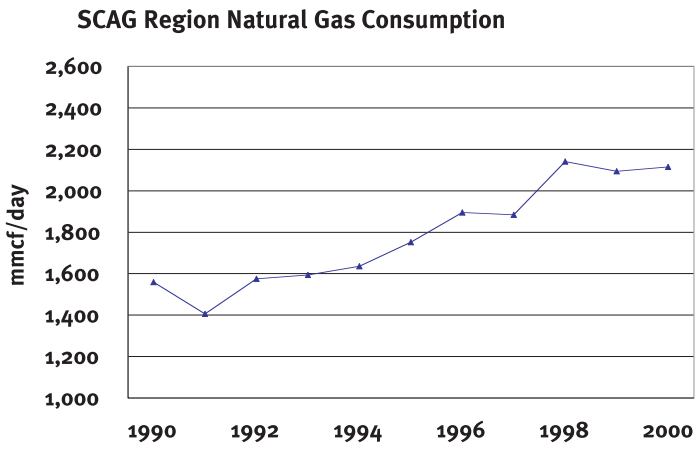
Since many DG technologies, such as wind and solar, take advantage of essentially free energy sources, the main installation barrier is the capital cost of equipment. A number of state programs have been established to facilitate the installation of DG, including self-generation, including buydowns for up to 50% of the cost of equipment depending on the type of technology.

Natural Gas

Natural gas supply and demand figures are tracked and compiled by the state's natural gas utilities in the annual California Gas Report. The SCAG region is served primarily by the investor-owned Southern California Gas Company, a unit of Sempra Energy. A small portion of the region is served by a municipal gas utility, Long Beach Energy (part of the City of Long Beach); this utility supplies about 1.5% of the gas in the region.

Like electricity demand, natural gas demand has increased substantially in the SCAG region over the last decade (see Figure 10; note that these data do not include natural gas burned for electricity generation). The average annual growth rate was 3.6%; the overall increase between 1990 and 2000 was 35.6%, probably reflecting fuel switching from oil to gas in response to stricter air quality regulations.

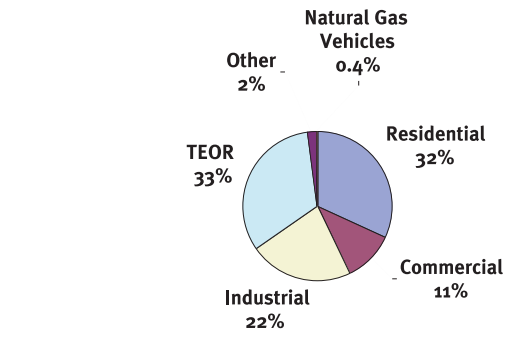
Figure 10



Source: Southern California Edison, 6/2002

Excluding natural gas used to generate electricity, residential gas usage in the SCAG region is about equaled by gas usage in thermally enhanced oil recovery (TEOR) operations, where heat is used to improve pumping of viscous petroleum from production fields (see Figure 11). Natural gas vehicles (see next section) represent a tiny fraction of the region's natural gas usage, but this use of natural gas is expected to grow dramatically in the next decade, particularly as heavy-duty vehicles transition away from diesel fuel.

Figure 11



Source: California Energy Commission

A short-term squeeze in California gas supply was a contributing factor in the electricity crisis that began in 2000. Pipelines were near capacity and little new gas production had been undertaken during the 1990s. As power demand grew in mid-2000, California utilities had little gas reserve storage, and were forced to pay high spot prices. During 2001 additional storage capacity has been added to alleviate the risk of repeating this experience. However, national gas market experts speculate that there still may be shortages in the nation's (and possibly the region's) future.[27]

Petroleum

Data from the Energy Information Administration of the U.S. Department of Energy indicate that 86% of California petroleum use is for transportation. While SCAG regional figures were not available, it is likely that the predominant use of petroleum in the SCAG region is likewise for transportation, as was the case in the prior energy chapter. Based on the SCAG 2001 Regional Transportation Plan, the SCAG region consumed 16,687,890 gallons/day of petroleum fuels in 1997, including gasoline and diesel fuel for light, medium, and heavy-duty on-road vehicles (see Table 3). This fuel was consumed in driving 346,292,865 vehicle miles per day, also according to the 2001 RTP. SCAG's share of statewide fuel consumption was somewhat smaller than its share of statewide VMT, indicating that SCAG's overall vehicle fleet is more fuel-efficient than the statewide fleet.

Table 3. SCAG Region Transportation Energy Use, 1997

Vehicle Fuel Consumption (gal/day)	
CA*	42,641,096
SCAG	16,687,890
SCAG Percentage	39.1%
Vehicle Miles Traveled (miles/day)	
CA*	780,336,986
SCAG	346,292,865
SCAG Percentage	44.4%

** California Department of Transportation, CA Motor Vehicle Stock, Travel and Fuel Forecast, 1998 report.*

III. Forecasted SCAG Region Energy Use

Strong population and economic growth continue to be forecasted for the SCAG region, meaning that energy demand will likely continue to increase as well. SCAG forecasts that population will increase 1.4% annually between now and 2025, due to a combination of natural increase and domestic and international in-migration. Natural increase is expected to contribute about 80% of the growth. The regional population in 2025 is currently forecasted to be 22.6 million residents, up from 16.5 million in 2000. These new residents will establish over 2 million new households.[28]

Employment growth will also continue, but as the SCAG region's population ages, job growth will be less dramatic than in the last quarter-century. The former annual employment growth rate of 2.5% will be replaced with a somewhat slower annual rate of 1.5%, but even at this rate, the region will grow to 10 million jobs in 2025 (from 7 million in 1997). The trend towards service jobs and away from manufacturing jobs may also slow the growth in demand for energy in the industrial and commercial sectors, though growth is still projected.

Despite the inevitable demands of growth on the region's energy supplies, little energy forecasting is formally conducted. Processes that formerly occurred at the state level, particularly for electricity demand forecasting, are no longer conducted in a restructured California market. Municipal utilities conduct their own planning processes, but do not coordinate their forecasts with each other or with those of the private utilities. There is no longer a coordinated process for planning maintenance on power generation facilities, creating a higher risk of outages even when demand is typically low.[29] Moreover, virtually every forecast incorporated into this report contained a disclaimer that the future is very uncertain.

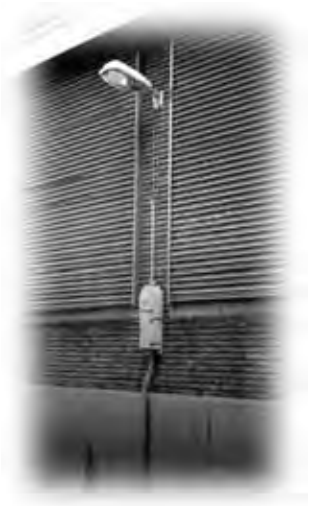
At one time, state agencies conducted integrated resource planning (IRP), a process that "integrat[es] a broader range of technological options, including technologies for energy efficiency and load control on the 'demand-side,' as well as decentralized and non-utility generating sources, into the mix of potential resources. Also, it means integrating a broader range of cost components, including environmental and other social costs, into the evaluation and selection of potential technical resources."[30]

As the SCAG region faces the challenges of meeting its energy demands, we should consider undertaking an IRP process. According to the foreword to the United Nations Environment Programme's Integrated Resource Planning manual, energy efficiency and conservation are the tools by which economic growth can be "delinked" from energy consumption, allowing growth in gross regional product without an increase in energy usage.[31] In other words, while the population and economic growth may be inevitable, the growth in energy use does not have to be.

Energy infrastructure planning takes time, and therefore should be the subject of well-structured long-range planning efforts. As the energy grid evolves, former divisions between transportation energy, natural gas and electricity may begin to fade away. Some new vehicles run on electricity; some run on natural gas. New hybrids run on electricity and gasoline together. Fuel cell cars of the future could burn hydrogen, then plug in and send power to the grid when not on the road. As these technologies converge, the region needs to plan for the needed transportation and energy infrastructure while using its limited land resources efficiently and continuing to improve air and water quality. Our land use decisions continue to determine our regional demand for energy to heat and cool our homes or to travel to and from work.

Through its Energy Resource Investment Plan, the California Power Authority is taking steps to resurrect the IRP process. The plan lays out an approach for assuring sufficient power reserves by 2006 with only "clean power" investments – energy efficiency, peak load management, "clean" distributed generation and renewables – and no new power plant construction, which it terms a "business as usual" approach. The plan demonstrates lower costs and greater benefits from the "clean power" approach, based on a broad range of environmental, economic and social criteria.[32]

Electricity



Given the recent history of California's electricity market, concern has focused on whether short-term imbalances of power supply and demand will continue. Whatever the causes of the shortages and blackouts that faced the state in 2000 and 2001, most experts seem to agree that statewide energy reserves continue to be too slim.

The California Energy Commission has estimated peak and total electricity consumption for the SCAG region up to 2012, broken out by major service providers (see Table 4). While the statewide electricity forecast includes several future electricity consumption scenarios, no such analyses have been done for the SCAG region. The state's scenarios assume various levels of persistence of voluntary power demand reductions and various levels of growth in the impact of demand reduction programs. The SCAG figures in Table 4 are based essentially on a "business-as-usual" scenario, which assumes that the conservation measures undertaken in the summer of 2001, whether voluntary or programmatic, have no future effect.

Table 4. Projected SCAG Region Electricity Use

Plan Area	2000	2012
	Electricity Consumption (GWh)	
SCE*	96,050	121,452
LADWP	24,115	27,487
BGP**	3,281	3,714
Region	123,446	152,653
	Peak Demand (MW)	
SCE*	18,724	24,960
LADWP	5,031	5,808
BGP**	842	902
Region	24,597	31,670

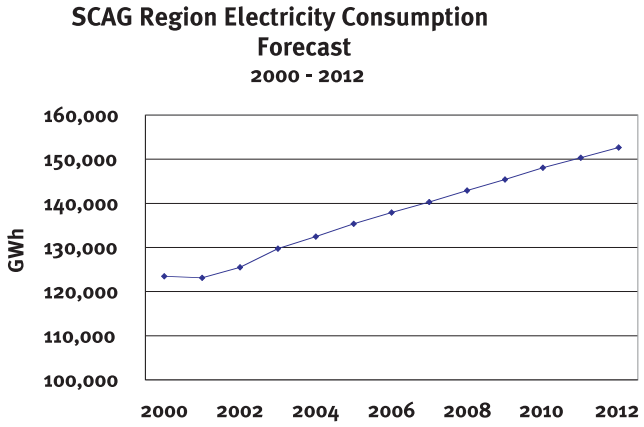
Source: California Energy Demand 2002-2012 Forecast, September 2001

** SCE figures include forecasts for other municipal utilities besides LADWP, Burbank, Glendale, & Pasadena. SCE service territory includes some areas outside the SCAG region.*

*** Burbank, Glendale, & Pasadena power utilities.*

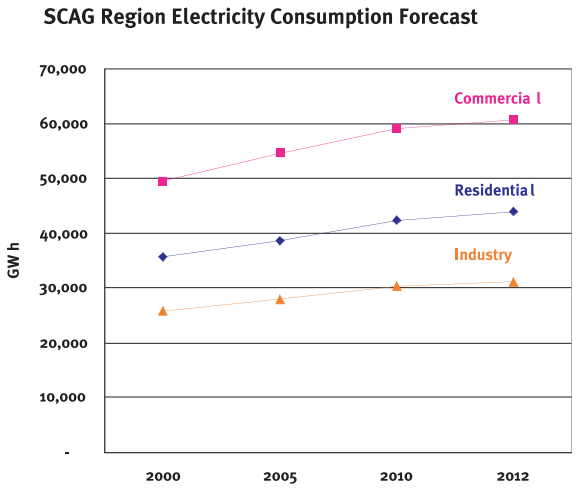
Due to energy crisis response, SCAG region energy usage actually dropped by 0.3% between 2000 and 2001. However, in the base case, the CEC projects that overall electricity demand will grow by 2% per year between now and 2012 (see Figure 12). Growth in the commercial sector will slightly outpace growth in the residential sector (see Figure 13), and electricity use for electric vehicles, while small, is projected to increase quickly over the same period (see Figure 14). The growth assumptions for power use in electric vehicles are consistent with the forecasts developed jointly by the CEC and CARB in their process for reducing petroleum dependence (for more information, see section below on Petroleum).

Figure 12



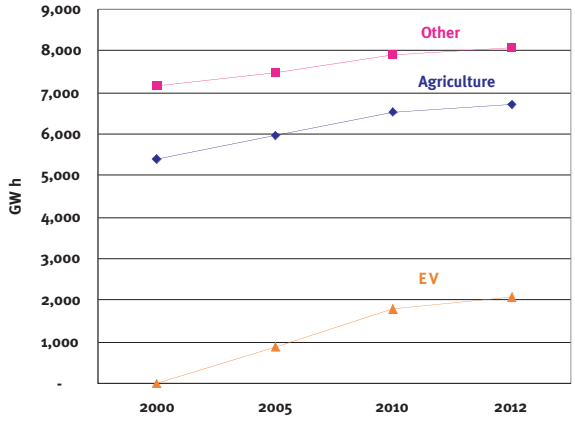
Source: California Energy Demand Forecast, Sep. 2001

Figure 13



Source: California Energy Demand 2002-2012, Sep. 2001

Figure 14



Source: California Energy Demand 2002-2012, Sep. 2001

More generating capacity is being built, both in the SCAG region (see map in Figure 15) and outside it. For example, Sempra Energy is building a 600-MW power plant in northern Baja California (not shown in Figure 15) that is expected to serve the California market, among others. Appendix B summarizes the licensing cases for new generating capacity in the SCAG region that are currently before the CEC.

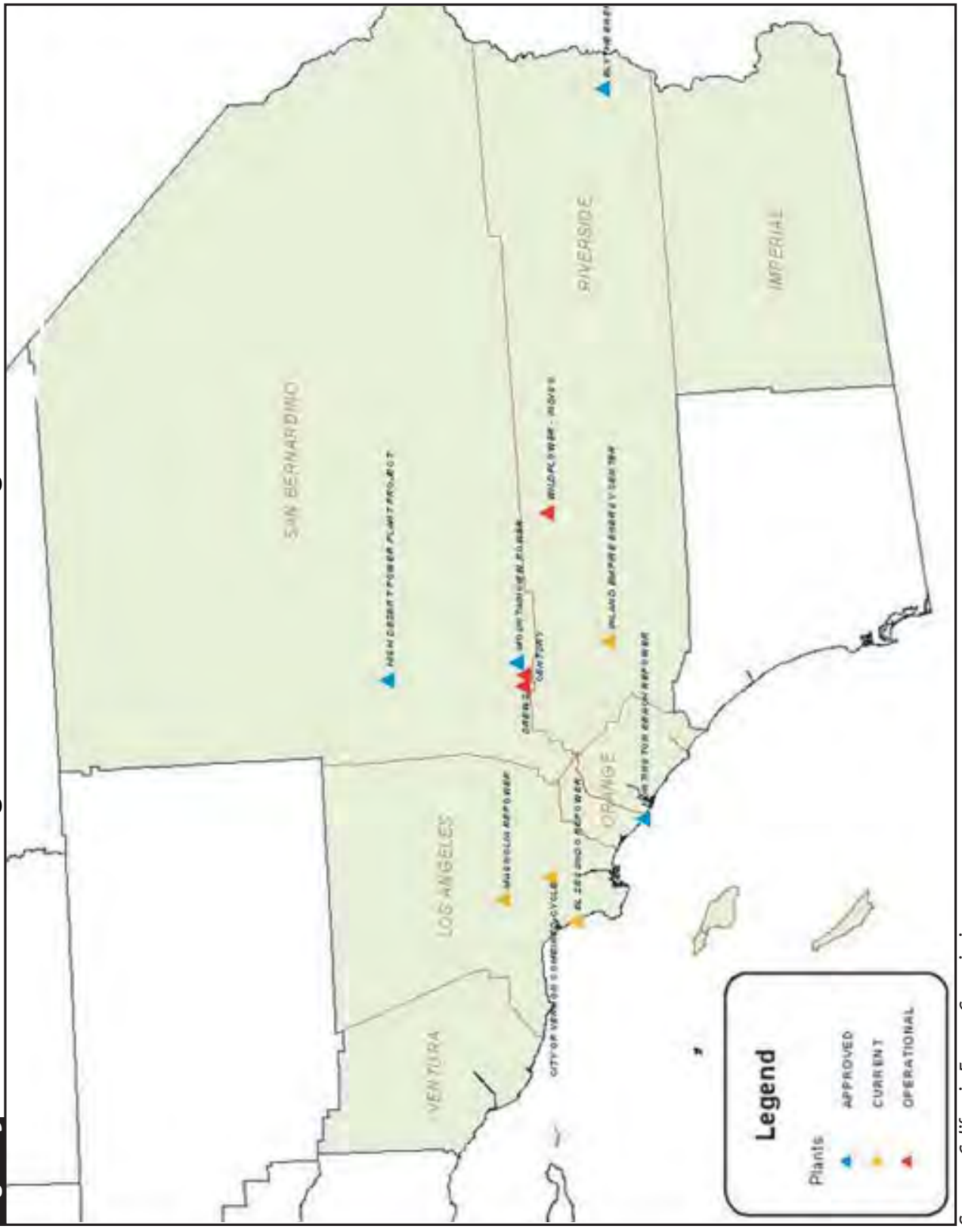


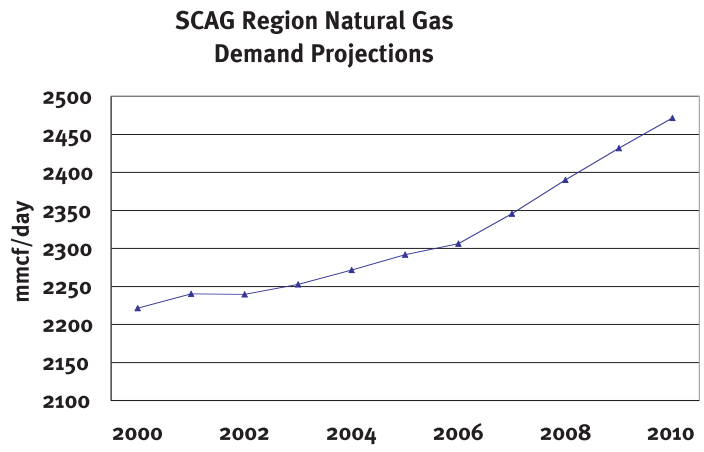
Figure 15 **Power Plant Licensing Cases in the SCAG Region**

Source: California Energy Commission

Natural Gas

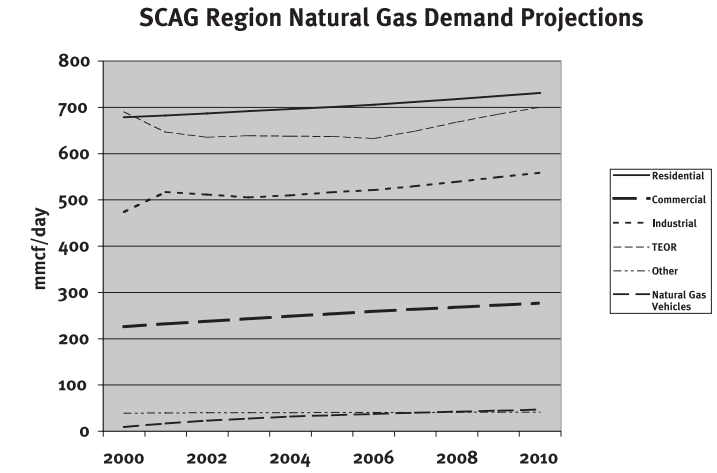
The California Energy Commission projects that natural gas usage will increase for the SCAG region between now and 2010 (see Figure 16). The CEC's projected annual average growth rate over this period is 1.1% per year. According to CEC's breakdown by sector, the steeper increases after 2005 will be driven mainly by gas use in industry and thermally enhanced oil recovery (TEOR), with some contribution from growing use of natural gas for transportation (see Figure 17).

Figure 16



Source: California Energy Demand 2000-2010, June 2000.

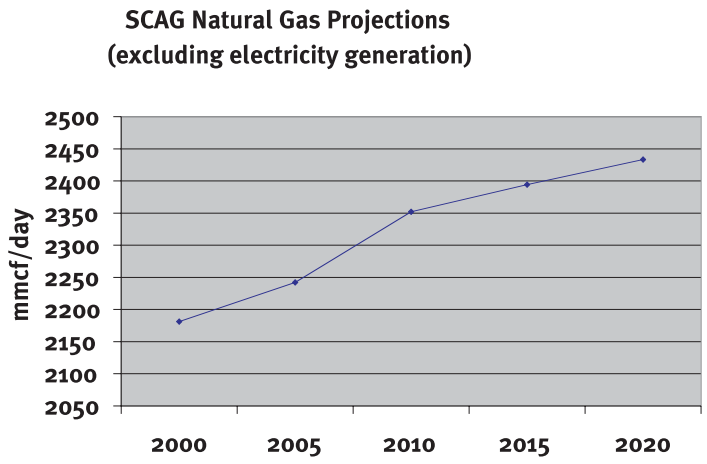
Figure 17



Source: California Energy Demand 2000-2010, June 2000.

The state's public and private gas companies collaborate to produce a longer-term forecast published in the California Gas Report (see Figure 18). This forecast is comparable to that of the CEC, except that the gas companies foresee demand growing more slowly, reaching the CEC's 2010 forecast demand in 2020.[33] The California Gas Report forecasts an average annual growth rate of only 0.8% between 2000 and 2010, and only 0.6% between 2000 and 2020. The California Gas Report forecast includes data for some portions of the Southern California Gas service territory that lie outside the region, specifically in Santa Barbara, San Luis Obispo, and Fresno Counties.

Figure 18

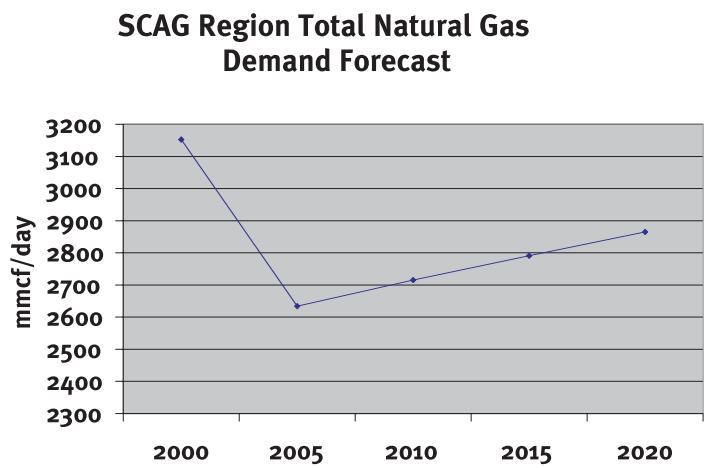


Source: 2000 California Gas Report (2000 data from California Gas Report 2001 Supplement)

The CEC does not include natural gas used for power generation in its figures and forecasts, while the Gas Report does include this data. From an energy use standpoint, it can be argued that it is "double counting" to include the gas consumed to produce electricity. The air quality implications are, however, considered in Section IV of this report.

When natural gas used in power generation is included, the SCAG region forecast looks quite different (see Figure 19). According to the Gas Report, a steep short-term drop in natural gas demand for electricity production is foreseen for Southern California as more power is produced outside this region – for example, in northern Mexico. Another factor contributing to this forecasted drop is the retrofitting of existing plants with more efficient combustion technology, accompanied by the eventual retirement of plants that cannot produce power at competitive costs.

Figure 19



Source: 2000 California Gas Report (2000 data from California Gas Report 2001 Supplement)

Natural gas companies plan to supply Southern California's future natural gas needs by creating a new gas terminal and pipeline infrastructure in northern Baja California. In the wake of the North American Free Trade Agreement (NAFTA), several new projects have been built or are proposed that will supply northern Mexico as well as Southern California. One of the most

notable, the North Baja Gas Pipeline, is under construction as of mid-2002 and will run 215 miles through both the U.S. and Mexico. In addition, the capacity of domestic pipelines is being increased, and some pipelines are being converted from petroleum to natural gas service.

Petroleum

SCAG's 2001 Regional Transportation Plan projects vehicle miles traveled (VMT) and associated petroleum fuel usage for 2025. Despite the spread of alternative fuels, petroleum usage in the SCAG region, including gasoline and diesel fuel for light-, medium-, and heavy-duty vehicles, is expected to continue to grow over the next twenty years (see Table 5).

Table 5 SCAG Region Fuel Consumption Projections, 2020 and 2025

	2020	2025
Vehicle Fuel Consumption (gal/day)		
CA*	63,882,192	not available
SCAG**	22,571,814	23,653,149
SCAG Percentage	35.3%	--
Vehicle Miles Traveled (miles/day)		
CA*	1,218,594,521	not available
SCAG**	469,349,492	490,076,069
SCAG Percentage	38.5%	--

** California Department of Transportation, CA Motor Vehicle Stock, Travel and Fuel Forecast, 1998 report.*
*** SCAG 2001 Regional Transportation Plan.*

Under legislation passed in 2000 (AB 2076), the California Energy Commission and the California Air Resources Board are conducting a joint process to develop strategies to reduce California's dependence on petroleum. The base case forecast developed in the AB 2076 process sees statewide transportation energy demand growing by roughly 2% per year: gasoline by about 1.6% per year, diesel by about 2.4% per year, and jet fuel about 3.4% per year.[34] The base case forecast assumes that by 2020, hybrid gasoline-electric vehicles will make up 6 percent of cars sold in the state, and the forecast includes projections for natural gas and electricity use in transportation. These forecasts have not been adjusted to account for any long-term impacts of the September 11, 2001 attacks.

As in past years, the base case forecasts indicate that VMT will continue to grow faster than population, given the growing accessibility of cars and the continued low price of transportation fuels. The state is currently at 95% of its petroleum refining capacity, but the CEC still projects an essentially stable price for gasoline for the foreseeable future (about the next 20 years). The mandated phase-out of air pollution control additive MTBE[35] has price and supply implications; ethanol, still the most likely replacement, has a lower energy content.

The CEC also presents a more optimistic alternative forecast in which fuel efficiency gains are greater and more hybrid and alternative fuel vehicles enter the fleet. This assumption reduces projected 2020 gasoline demand by about 5 percent. It is important to note that, given the severe air quality restrictions in the SCAG region, the VMT and fuel consumption projections in the 2001

RTP are even more conservative – i.e., a greater level of adoption of alternative fuel vehicles is assumed – than the optimistic alternative forecast of the CEC for the state as a whole.

The AB 2076 process has also generated two other products:

- An analysis of several different strategies to reduce petroleum dependence, categorized as fuel efficiency strategies, fuel displacement strategies, pricing strategies, and others such as land use planning. The draft report[36] presents the relative costs of various fuel displacement options, assuming (among other things) that all the technologies studied are fully commercialized. Cost estimates generally include the cost of government revenue losses from transportation fuel taxes.
- An analysis of the environmental and economic benefits of reducing petroleum dependence, including analysis of the relative costs and benefits of the various strategies identified in the foregoing report.[37]

One aim of the AB 2076 process is to set goals for reducing the rate of growth in demand for petroleum fuels. As such, this may be the first policy that begins to move California towards alternative fuels and away from traditional gasoline- and diesel-fueled transportation. Under another law, SB 1170, the state government is implementing its own clean-fuel vehicle fleet and CEC is developing recommendations for a fuel-efficient tire program.

Despite the absence of an overarching national or state policy to foster alternatives to petroleum, the CEC, U.S. Department of Energy, local air districts, non-governmental organizations, and others have launched many transportation energy-related initiatives. CEC heavy-duty vehicle programs include the Carl Moyer incentives to adopt low-emission technologies like natural-gas engines, the low-emission school bus program, natural gas liquefaction technology demonstration sites, and CEC support for the public-private California Fuel Cell Partnership. Light-duty vehicle programs include incentives for electric and highly efficient vehicles, alternative-fuel infrastructure funding, a Clean Fuels Market Assessment Study, and total fuel cycle efficiency studies for light- and heavy-duty vehicles. CEC also administers the federal Clean Cities program, an incentive program to move city fleets towards alternative fuel vehicles.

Within the SCAG region, the SCAQMD has also taken steps to encourage the deployment of alternative-fuel vehicles and infrastructure, even though its authority over vehicles is not as broad as the state's. The agency has recently adopted a suite of fleet rules designed to move public fleets towards alternative fuels. The rules require that, for fleets of 15 or more vehicles, new or replacement vehicles be either low-emission or alternative-fueled. The rules apply to vehicle types including transit buses, trash trucks, school buses, and other public fleet vehicles, and also extend to commercial fleets providing ground access to airports.

Additional SCAQMD rules encourage large employers and public entities to submit bids under the Air Quality Investment Program, which funds projects to reduce motor vehicle emissions through engine retrofits, mass transit deployments, and old-car scrapping, among other strategies.

IV. Energy Use Implications

This section examines some of the implications of energy use, primarily from an environmental and infrastructure standpoint. Generally, only air quality impacts are quantified in this chapter, although impacts on water and biological resources are discussed qualitatively where possible. Environmental impacts, in turn, may have considerable human health impacts: for example, a recent study by Brigham Young University and New York University found that exposure to fine particulate matter – emitted from power plants and mobile sources – in urban air produced a lung cancer risk similar to that posed by living with a smoker.[38]

Energy use has other broad implications that go beyond the scope of this chapter. Energy use is related – as both cause and result – to population and employment growth, land use, and economic development. Energy infrastructure decisions are decisions to commit land and often biological resources. These decisions involve tradeoffs that should be considered within the framework of environmental justice policy. Siting of generating facilities just outside U.S. borders is beginning to raise questions of transboundary impacts. Environmental impacts go beyond air and water quality to include solid and hazardous waste and the potentially global impacts of greenhouse gas emissions. And all energy use has economic costs, many of which have traditionally been external to economic transactions.



While valuable research has been done on the issue of energy use implications, much more extensive study is needed to allow truly informed energy planning and decision making. Only with good information on the implications of energy use can we choose energy sources that strike the best balance between costs and benefits.

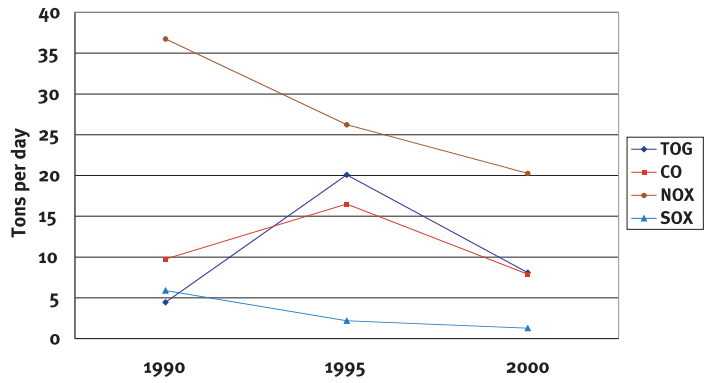
Electricity

Given the restructuring of the California electricity market and the changes in the planning process, it has become much harder to predict the growth in electric generating capacity. Under AB 1890, investor-owned utilities no longer own gas-fired generating plants and cannot build new ones. Decisions to build generating capacity are made in the private sector according to internal assessments of likely profits and return on investment.

For the entire state (not for the SCAG region), the California Energy Commission has modeled several different scenarios to simulate the wholesale spot price of power, as a means of predicting what generating infrastructure might be built. In general, the CEC's analysis indicates that enough new capacity will come on line in the Western United States between 2002 and 2005 to depress spot prices and deter much further construction beyond 2005.[39] Given the uncertainty in future supply, California's, and the SCAG region's, actual electricity outlook depends in part on how well we maintain conservation efforts. Also, new power supplies may in some cases reach the region through new transmission lines, whose construction is not without controversy.

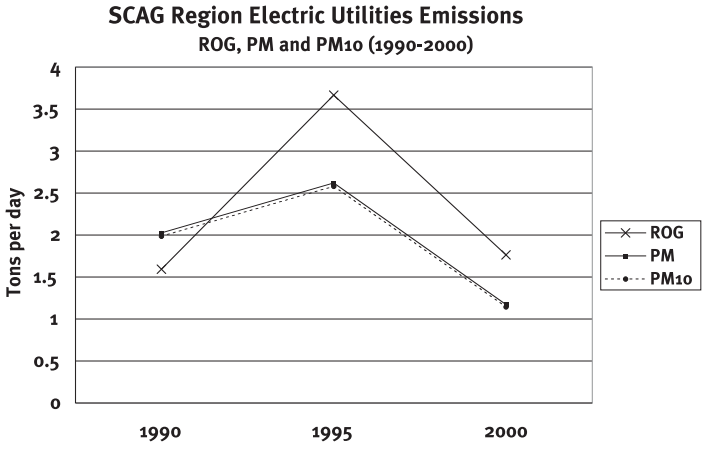
CARB maintains a database of emissions data by county that includes emissions from electric utilities. From 1990 to 2000, emissions of most criteria pollutants from utility operations have decreased substantially: particulate matter by over 40%, NOx by 45%, and SOx by nearly 80%. Carbon monoxide (CO) emissions have dropped by about 20%, but total organic gases (TOG) have grown by over 80% and reactive organic gases (ROG) by 11%, according to the CARB data (see Figure 20 and Figure 21).

Figure 20



Source: ARB, Custom CEFS Report, 2002.

Figure 21



Source: ARB, Custom CEFS Report, 2002.

According to the CEC's Environmental Performance Report of California's Electric Generating Facilities, power plants statewide have gone from producing 8% of the state's total NOx emissions in 1975, to 2.2% in 2000, and from 2.7% of the state's PM10 in 1975 to less than half a percent in 2000. These emission reductions have resulted from increased efficiency of power plants, increased use of combined-cycle and cogeneration technologies, installation of required pollution controls, and shifts to cleaner-burning fuels such as natural gas. Increases in organic gas emissions may be a result of some NOx pollution control technologies.[40]

Future projections of power plant emissions are not as optimistic, however, since many of the lowest-cost improvements have already been made. Increasing demand for energy, at least in a business-as-usual scenario, means that emissions of most power plant pollutants are likely to begin increasing again, with the possible exception of NOx, for which emission controls are still being installed under state law that takes effect in 2005 (see Figure 22 and Figure 23).

Figure 22

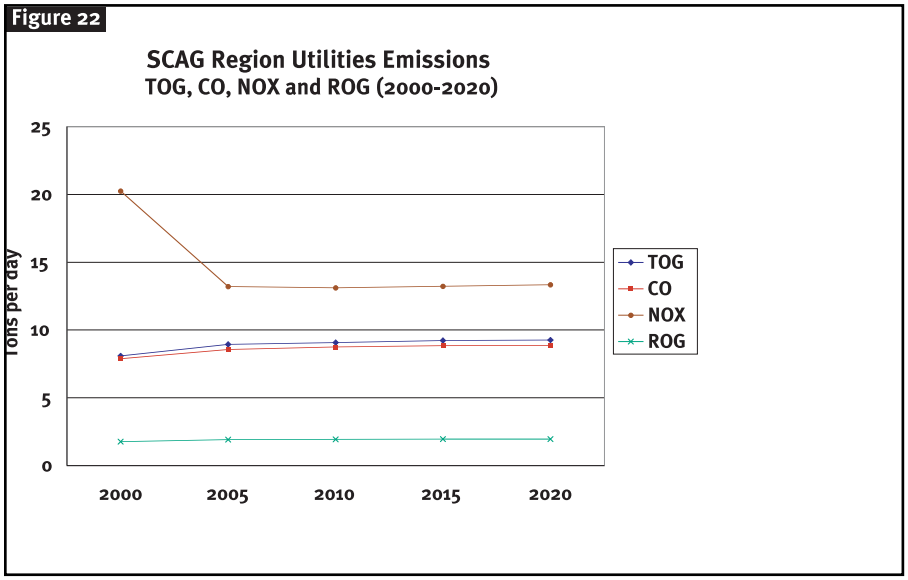
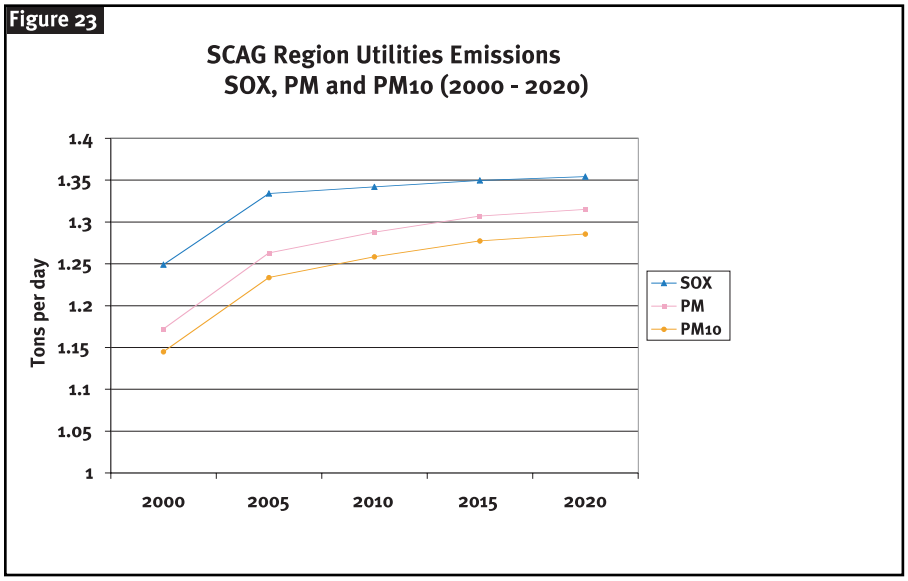


Figure 23



Power plants' environmental impacts are not limited to air emissions, but there is no specific data available for the SCAG region on other types of impacts. Power plants may use ground water or surface water, including rivers, bays and oceans, as a source of cooling and as a location for wastewater discharge that may carry pollutants or heat. Newer plants are less likely to use water for once-through cooling, and there is a trend toward dry cooling that may further reduce the water resource impacts of power generation.[41] Power facility construction has also negatively impacted biological resources, including both wildlife and habitat, although the trend is toward smaller-footprint facilities that are less disruptive.[42]

Transportation-Related Impacts

SCAG's 2001 Regional Transportation Plan projects the infrastructure that will be needed to support the projected regional travel demand in 2025. Total highway lane miles are projected to grow by 13% between 1997 and 2025, while transit route miles are projected to increase by 22% (see Table 6).

Table 6 Transportation Infrastructure in the SCAG Region

	1997	2025
Highways		
Lane Miles	8,906	10,076
HOV Miles	582	1,354
Transit		
Vehicles	3,187	4,559
Route Miles	14,170	17,276

Source: 1997 and 2025 Highway numbers from 2001 RTP, C-3 and C-8
1997 and 2025 Transit numbers from National
Transit Database and RTP

According to CARB emissions data for SCAG counties, emissions of criteria pollutants from transportation[43] have decreased over the last decade (see Figure 24 and Figure 25). Emissions of CO (not shown) have exhibited a similar trend. These decreases have occurred, of course, despite dramatic increases in travel (see Table 3 and Table 5), thanks to cleaner-burning fuels, pollution controls, and some increase in efficiency of vehicle engines.

Figure 24

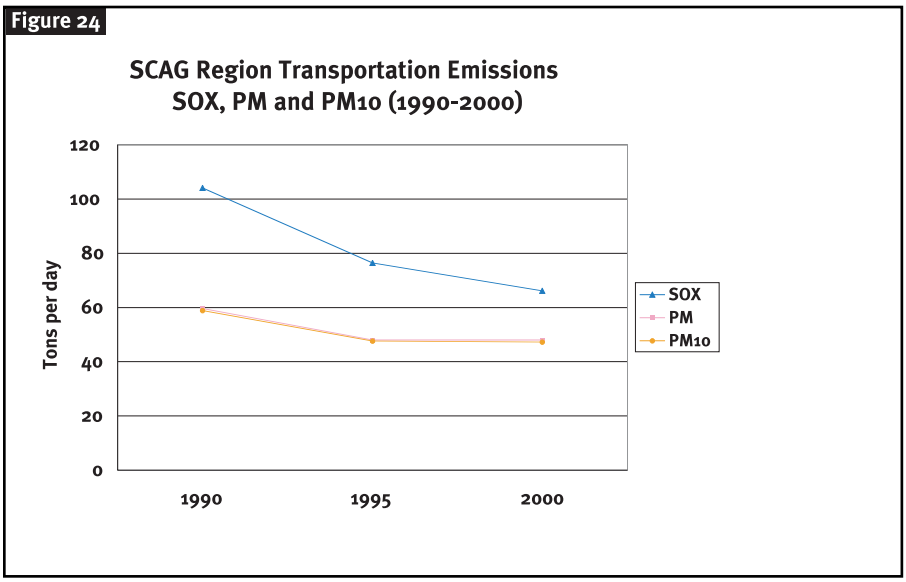
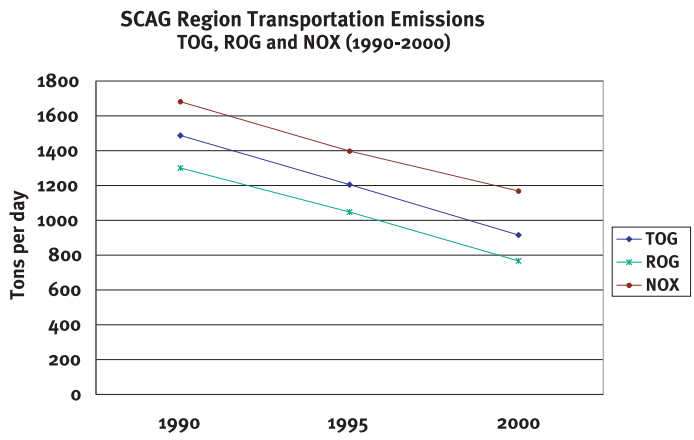


Figure 25



Source: ARB, Custom CEFS Report, 2002.

For most criteria pollutants, CARB projects that transportation emissions will continue to drop between now and 2020 (see Figure 26 and Figure 27). Again, CO emissions are not shown but follow a similar trend to that for TOG, ROG and NOx. The exception to this trend is SOx, emissions of which are projected to decrease for on-road mobile sources as sulfur is removed from gasoline and diesel fuel, but will increase overall due to growing use of other mobile sources. This category includes aircraft, commercial and private boats, trains, off-road vehicles and farm equipment.

Figure 26

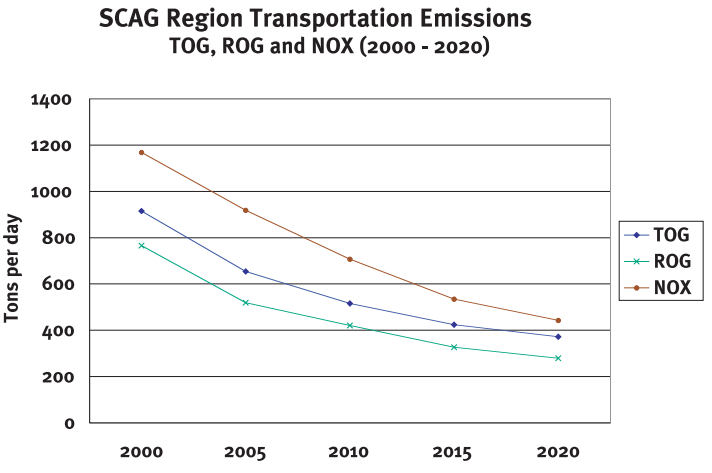
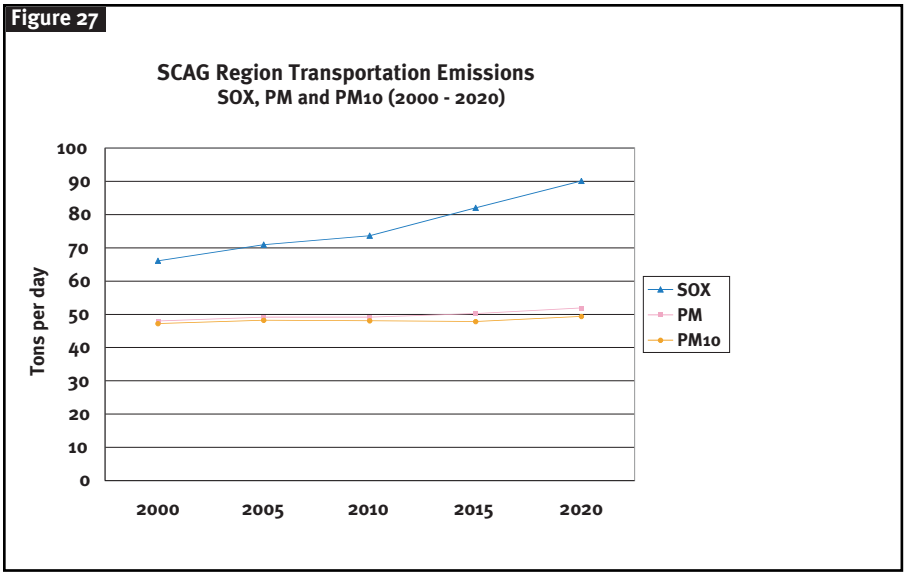


Figure 27



As with power generation, the environmental implications of transportation energy use go well beyond criteria pollutant emissions. As part of the AB 2076 process, consultants to the CEC and CARB have produced a draft analysis of the environmental and economic benefits and costs of various ways of reducing petroleum use in the state.[44] The consultant's preliminary report examines toxic air contaminants and greenhouse gas emissions in addition to criteria pollutants, although the analysis quantifies only "marginal" emissions – those arising from new facilities, systems, or infrastructure needed to accommodate the various scenarios. Once the data are final, the methodologies could likely be adapted to provide emissions estimates and trends for toxics and greenhouse gases for the SCAG region.

The CEC-CARB consultant report also discusses the "multi-media" impacts of petroleum use: particularly water and soil impacts from accidental and intentional pollutant discharges related to the production, transportation, and storage of fuels. For example, the report estimates that marine terminal petroleum spills in California (not just the SCAG region) average 3,357 gallons annually and cost an average of $16,698 to clean up, while open ocean petroleum spills average 60,157 gallons annually, and cost an average of over $210 million to clean up. Transportation spills average over 2 million gallons annually and cost over $63 million per year to clean up.[45] The consultant's analysis shows that for all petroleum reduction scenarios where multi-media impacts were analyzed, there were positive economic benefits from reducing spills.[46]



Other Energy-Related Emissions

Emissions result from other energy uses in the SCAG region. CARB has estimated emissions from energy use in manufacturing and industry, food and agricultural processing, service and commercial operations, residential fuel combustion, and cooking. Total criteria pollutant emissions from these energy uses have been fairly flat over the last decade (see Figure 28 and Figure 29), but are projected to increase slightly over the next 20 years (see Figure 30 and Figure 31). Various "waste-to-energy" techniques and other technologies that minimize, re-use, or divert waste can mitigate environmental impacts, including air emissions, from all of these industrial sectors.

Figure 28

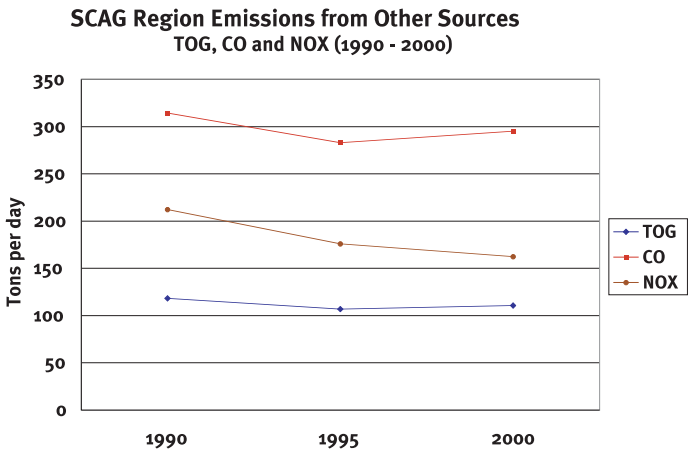


Figure 29

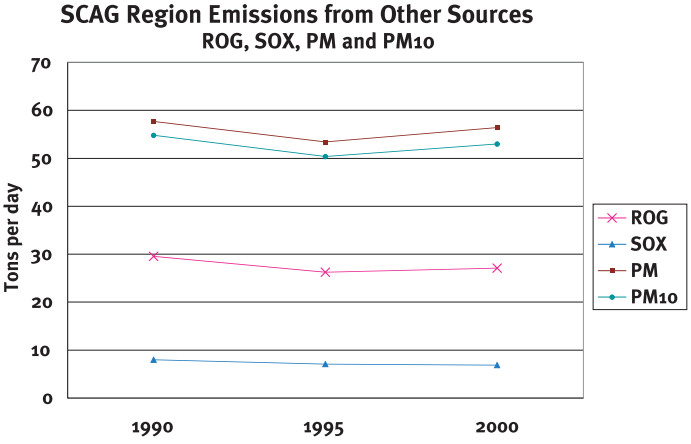


Figure 30

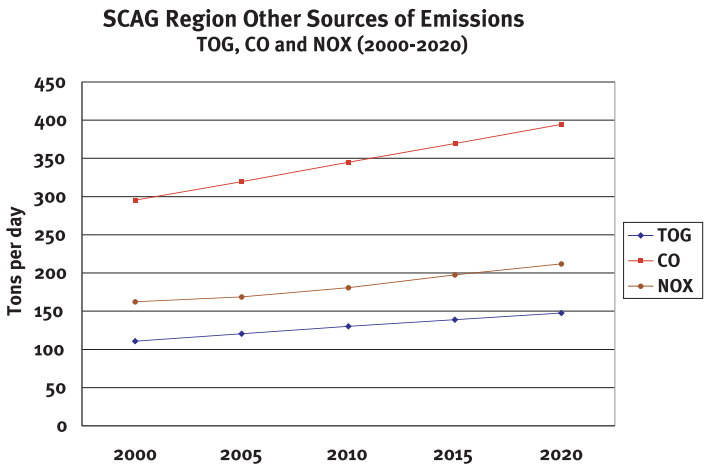
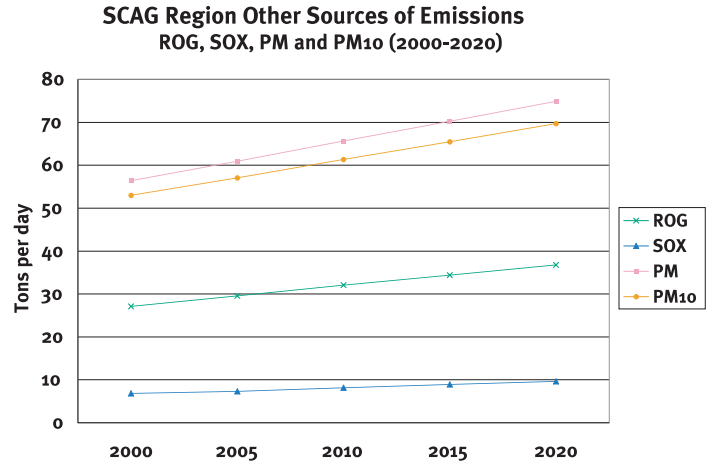


Figure 31



V. Energy Efficiency and Demand Side Management

The recent crisis in California's energy supply has redirected attention from "energy efficiency" to a variety of measures that can reduce energy consumption in the short-term, reduce consumption in the long-term, and reduce peak demand. Measures that can achieve one or more of these goals include appliance and building efficiency standards; distributed generation that can offset peak demand; retrofits like light-colored roofs to reduce peak cooling needs; and changes in consumer behavior such as replacing incandescent with fluorescent light bulbs or raising the thermostat in summer.



Overall, these measures are often referred to as "demand side management," which encompasses three broad categories: demand management, energy efficiency, and distributed generation. Demand management generally indicates programs designed to shift load away from times of peak demand, or to otherwise even out power demand. This can be achieved through technology or via human actions, and is sometimes linked with the cost of electricity. The 20/20 program, in which voluntary reductions of 20% in residential power use earned a 20% discount on the power bill, is an example of demand management. Distributed generation (discussed in Section II of this report) refers to small generating equipment on either the utility or the customer side of the meter that can displace the need for central grid power.

Energy efficiency refers to the purchase and use of equipment, like lighting or appliances, that is designed to be more energy-efficient, or the implementation of building design standards. Since the early 1990s, energy efficiency funds have been collected via ratepayer surcharges, referred to as public goods charges, and administered by the state's IOUs under a process overseen by the CPUC. These funds are offered to residential and non-residential customers to assist them in saving electricity and natural gas, and are also partly devoted to new construction programs aimed at making new buildings and homes more energy-efficient. Statewide, this funding amounts to approximately $300 million per year.

In a restructured electricity market, where the IOUs' profits are no longer set by the CPUC, there is some concern that the utilities will lack an incentive to provide energy efficiency programs. In November 2001, the CPUC decided to set aside 20% of the program funds over the next two years – approximately $100 million – for administration by non-utility parties. The funds would still be collected by the IOUs, but administered by third parties – including cities, counties, and Councils of Government, both regional and subregional – under contract with the IOUs. These set-aside funds are distributed based on a bid evaluation process by the CPUC. If these non-utility programs prove successful, a higher proportion of funding may be made available in the future. A stated goal of the CPUC is to encourage programs designed to reach traditionally underserved energy efficiency targets, such as renters and landlords or low-income households.[47]

City and County Efforts

In the SCAG region, a number of cities and counties have responded creatively to the energy situation, and several had energy efficiency initiatives underway well before the 2000-01 crisis. For several years the cities of Santa Monica and Irvine have been part of the non-profit Regional Energy Efficiency Initiative (REEI), which receives funding from Southern California Edison out of public goods charges. The idea of the REEI, formally created in 1999, was to build energy efficiency partnerships between cities and their serving utilities.[48]

Through this partnership, Santa Monica works with local non-profit housing corporations to design affordable housing to meet energy efficiency goals; with local small business owners to retrofit and fine-tune their equipment and buildings; and with the local school district to educate students about energy conservation. Separately, the city has adopted a Sustainable City policy that includes energy reduction goals.[49] The city also has adopted aggressive "green building" standards that incorporate and promote energy efficiency.[50]

Also through the REEI, the City of Irvine has established energy districts designed to achieve energy efficiency by coordinating the efforts of residents, schools, and local businesses. The city has also worked with residents of senior citizens' communities to replace lighting and appliances with energy-efficient versions and to change behavior to reduce power demand during Stage 3 alerts.



In 2000, Ventura County convened the POWER Task Force (Preserve Our Widely used Energy Resources), which brought together industry leaders and elected officials to identify strategies to avoid the loss of businesses and jobs due to uncertainty about energy price and supply.[51] The group has explored the option of creating a Community Energy Authority (see next section on Demand Side Management Resources) and is working with a local non-profit research partnership to identify technologies that balance energy demand and environmental concerns.

The Inland Empire Utilities Agency, a regional sewage treatment and water agency in the Chino basin, is undertaking a series of integrated organics management projects that will achieve several regional goals, including generating power for use in the basin and possible sale to others. In general, the projects are designed to treat waste from the numerous dairies in the basin, using composting, anaerobic digestion and other technologies to produce fuel known as "biogas" for bioenergy generation. This fuel will be used to power micro-turbines to produce as much as 50 MW of electricity.[52] The project will produce "cow power" while minimizing impacts on air quality, surface water, and groundwater.

The City of Lancaster, located in an area where temperatures can reach extremes, was recognized by the League of California Cities for its energy management system.[53] The system

focuses on lighting, heating, and air conditioning in city facilities and has saved the city 25% on energy bills every year since it was put in place.

According to the Governor's Office of Planning & Research, six local jurisdictions in the SCAG region have adopted optional energy elements in their general plans: Calabasas (1995), Pasadena (1983), Rancho Mirage (1997), City of San Bernardino (1989), Ventura County (1988), and West Hollywood (1989). Many of the energy elements are combined with water conservation elements, and many establish goals and policies that encourage energy-efficient land use and building design, call for energy audits, and provide for public awareness of conservation needs. The Calabasas plan estimates electricity and natural gas consumption rates at build out.



In the transportation energy arena, Sunline Transit, located in Thousand Palms, has converted its entire transit fleet to natural gas, and additionally operates a hydrogen fuel-cell bus and electric vehicles. Its Clean Fuels Mall has attracted worldwide interest in the agency's forward-looking application of environmentally preferable fuels.[54]

A number of California jurisdictions outside the SCAG region, many in the Bay Area, have taken on energy issues in creative and innovative ways. In Fall 2001, voters in the City of San Francisco approved funding for up to 50 MW of new solar installations and 30 MW of wind installations on public facilities, and added renewable energy and conservation projects to the list of project types for which the Board of Supervisors can issue revenue bonds without a public vote.[55]

In Marin County, at least one city has voted to support formation of the Marin Local Energy Council, whose goals include increasing energy supply security and price stability and reducing greenhouse gas emissions by aggregating demand for the whole county.[56] The San Diego Association of Governments (SANDAG) adopted a Regional Energy Plan in 1994 and created the San Diego Regional Energy Office, which is now undertaking an extensive energy infrastructure study to guide energy decision making.[57]

Demand Side Management Resources

Cities and counties can take a variety of actions to address energy use and conservation. Local governments can

- retrofit their own buildings, or design new government facilities, to reduce energy consumption (via lighting, heating, roofing, or other modifications);

- promote similar activities by others, i.e., residents, businesses, and other community members, possibly by adopting standards or ordinances; and
- provide funding for these activities, e.g., through state programs.

The state has responded to the energy challenges with the "Flex Your Power" campaign, which includes a website[58] and advertising. In addition, the state has enacted a broad array of grant and loan programs and other financial incentives for energy efficiency, self-generation, and renewables. Some of the state actions augmented existing programs, while others established new programs, funded from sources including the general fund, ratepayer surcharges, and bonds. See Table 7 for a summary of the $2.8 billion in state funding available for energy efficiency, renewables, and self-generation programs in 2000-2001. Appendix C presents a comprehensive list of state programs. Another useful resource compiled by the Center for Energy Efficiency and Renewable Technologies is titled "Power to Your Pocket: California Consumers Guide to Energy Incentives."[59]

Since 1984, state law has provided that cities, counties, or groups thereof may form Community Energy Authorities. These authorities would have the power to issue tax-exempt debt to finance energy projects, among other things. The Local Government Commission has been working with local jurisdictions and COGs to further develop and implement this concept. Local jurisdictions can also address their energy needs through related steps such as establishing municipal utilities or aggregating demand. The latter has been done for electricity and natural gas purchases by the Association of Bay Area Governments (ABAG) through a "power pool."[60]

Local economic benefits can be realized from instituting energy conservation efforts or promoting the use of distributed generation. The Rocky Mountain Institute, a Colorado think tank, estimates that 70 to 80 cents of every dollar spent on energy by a typical town leaves the local economy.[61] Reducing a community's energy use can thus be an easy way to keep money within the community, purchasing more goods and services from local suppliers. Some kinds of energy efficiency initiatives – lighting retrofits, home energy audits, insulation upgrades, and roof retrofits, to name a few – can even stimulate the creation of new businesses and jobs. In its Community Energy Workbook, the Institute outlines a process that includes energy town meetings and the formation of energy task forces to identify and undertake energy-saving changes tailored to local needs.[62]

Even with the changes in the state's energy situation, the evaluation of efficiency options done in the prior energy chapter is still largely valid and useful as a resource for cities and counties. The relevant chapter sections (summary versions) are included in Appendix D.

Table 7 Summary of State Energy Efficiency & Renewables Programs, 2000-01

Flex Your Power
PUBLIC FUNDS AUTHORIZED (2000/2001)
FOR FINANCING
ENERGY EFFICIENCY AND RENEWABLES PROJECTS AND PROGRAMS

	FUNDING AMOUNTS (millions) AND PURPOSE			
SOURCE OF FUNDS	**ENERGY EFFICIENCY**	**RENEWABLES**	**ENERGY EFFICIENCY AND/OR RENEWABLES**	**TOTALS**
	$777	**$584**	**$1,461**	**$2,821**
RATEPAYERS	**$399**	**$135**	**$63**	**$597**
Ca Public Utilities Commission (CPUC, Self Gen)	$0	$135	$0	$135
Ca Public Utilities Commission (CPUC, EE Pub Purpose Prgrms)	$299	$0	$0	$299
Ca Public Utilities Commission (CPUC, Low Income EE)	$100	$0	$0	$100
Ca Energy Commission (CEC, Renewables)	$0	$135	$0	$135
Ca Energy Commission (CEC, Public Interest Energy Research)	$0	$0	$63	$63
GENERAL FUND (1)	**$337**	**$65**	**$102**	**$572**
CEC (AB970 & SBx5 & ABx29 Augmentations)	$56	$0	$28	$84
CPUC (EE Pub Purpose Prgm augmentation: Utility-administered)	$58	$0	$0	$58
CPUC (EE Pub Purpose Prgm augmentation: Comm administered)	$39	$0	$0	$39
CPUC (Low Income EE augmentation)	$45	$0	$0	$45
Ca Municipal Utilities (Public Purpose Program Augmentations)	$40	$0	$0	$40
Dept of General Services (DGS)	$0	$0	$40	$40
Housing and Community Dev (HCD) (Low Income EE)	$120	$0	$0	$120
Community Colleges (SB 735)	$0	$0	$34	$34
Calif Conservation Corp (CCC)	$20	$0	$0	$20
Ca Alt Energy & Transp Fin. Authority (CAEATFA) *	$0	$25	$0	$25
Ca Tech, Trade & Comm Agency (TTCA) (Renewable Loan Prgram)	$0	$40	$0	$40
S Coast AQ Management District (SCAQMD; Carl Moyer Prgrm)	$0	$27	$0	$27
BONDS	**$0**	**$350**	**$1,285**	**$1,635**
DGS	$0	$0	$250	$250
Ca Alt Energy & Transp Fin. Authority (CAEATFA)*	$0	$350	$0	$350
Ca Industrial Development Financing Advisory Commission*	$0	$0	$35	$35
Ca Consumer Power and Cons. Fin Authority (CCPCFA)**	$0	$0	$1,000	$1,000
SPECIAL FUNDS	**$0**	**$7**	**$11**	**$18**
S Coast AQ Management District (SCAQMD)	$0	$7	$1	$8
Ca Integrated Waste Management Board (IWMB)	$0	$0	$10	$10

*CAEATFA and CIDFAC are administered by the State Treasurer's Office.

** The CCPCFA, established by SBx6, became operational on August 24th, 2001; the actual purpose, timing, allocation, and selection (approval/ownership/payment process and verification) for use of these funds (central grid versus onsite generation) has not been determined.

(1)GENERAL FUND MONIES (AB970, SBx5 and ABx29) NOT INCLUDED ABOVE:		**NOTES**
Total General Fund Appropriations (not included)	$230	Costs unlikely to have verifiable, sustainable effects
CEC Load Management Programs	$190	Costs unlikely to have verifiable, sustainable effects
CPUC Administered Load Management (AB970 Load Control)	$13	Costs produce only peak demand savings, with no sustainable reduction in energy use
CPUC/Utility Administered Load Management (R.00.10.002)	$0	Costs and benefits dependent on frequency and duration of Rolling Blackouts
DCA (media costs for energy efficiency and load management)	$20	DCA=Department of Consumer Affairs

Source: http://www.governor.ca.gov/state/govsite/gov_homepage.js, Flex Your Power. On line, follow links from this table to get more information on specific programs.

VI. Where Do We Go From Here?

As the foregoing sections show, changes in the California energy markets have made energy planning more difficult. While there is more data available on the impacts of energy choices, the lack of integrated planning among responsible entities – regulatory agencies, utilities, private industry, and local governments – makes it hard to say whether the SCAG region has a secure energy future. The wide variety of state demand side management programs being offered surely indicates the state's commitment to energy conservation, but it has been criticized as uncoordinated, inefficient, and confusing to consumers.[63]

In California, much local and even state-level energy policy has evolved in the absence of any state or national energy goals. Individual actors – lawmakers, agency leaders, non-governmental organizations, cities – have instituted efficiency programs, incentives for alternative-fuel vehicles, or rebates for distributed generation facilities because they were motivated by a belief that these programs would provide social benefits greater than their costs. However, without a clear statement of energy goals – for example, a certain percentage of power from renewable sources by a certain date – Californians will simply be lucky if all these efforts lead to a desirable outcome.

In June 2002 the CPA, CPUC, and CEC boards met jointly and expressed their desire to engage in integrated resource planning and to develop a "policy for California that assures energy-supply reliability, quality energy, an adequate reserve...understanding that if we are not absolutely committed to protecting the environment, that in the long run we will not survive and not succeed; and that we also are going to be practical about making sure we keep the lights on and that we can have a very prosperous economy."[64]

To support this outcome, SCAG should take steps to build the information needed to make appropriate energy decisions for the region. Recommended initial steps include, in rough order of priority:

- Given the clear need for energy planning and coordination of energy efficiency efforts in the region, continue to investigate the potential role of SCAG in coordinating such planning in conjunction with the closely related efforts of transportation planning, air quality planning, watershed planning, and growth visioning.
- Continue to develop data on the implications of energy usage, especially on emissions of toxic air contaminants and greenhouse gases and possibly for other media besides air.
- Support state and local efforts to better coordinate demand side management programs and the development of overall energy policies and goals.
- In conjunction with the SCAG Growth Visioning and State of the Region processes, develop regional energy performance indicators and goals for those indicators.

- In conjunction with the SCAG Growth Visioning process, conduct scenario analysis to compare the energy demand impacts of the regional growth patterns evaluated, such as compact vs. dispersed growth.
- Further investigate the potential benefits to the region from encouraging distributed energy resources and combined heat, cooling and power, possibly by holding a conference for cities on these technologies.
- Conduct energy demand modeling for the SCAG region, based on regional population, housing and employment forecasts.

Endnotes

1 U.S. Energy Information Administration, http://www.eia.doe.gov/emeu/ipsr/t37.txt.

2 San Diego Gas & Electric serves a small number of customers in South Orange County.

3 Congressional Budget Office, "Causes and Lessons of the California Electricity Crisis," September 2001.

4 Timothy J. Brennan, "The California Electricity Experience, 2000-01: Education or Diversion?," Resources for the Future, http://www.rff.org/reports/PDF_files/3607BrennanCA.pdf.

5 California Energy Commission, 2002 – 2012 Electricity Outlook Report, Commission Final, February 2002, P700-01-004F.

6 At Stage 1, customers who have agreed to interruptible service should prepare for potential outages. At Stage 2, interruptible loads will be interrupted. At Stage 3, firm loads may also be interrupted.

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Appendix A

SCAG Region Power Plants



SCAG Region Power Plants

PLANT NAME	ALIAS	FACILITY TYPE	GENERAL FUEL	PRIMARY FUEL	TECHNOLOGY	ONLINE MW	COGEN	GROSS MW	DATE ONLINE	SERVICE AREA	COUNTY	ADDRESS	OPERATOR	OWNER
IMPERIAL RESOURCE RECOVERY	IMPERIAL RESOURCE RECOVERY ASSOCIATIES or SCHOLL CANYON SLF	WTE	BIOMASS	AG. & ANIMAL WASTE		15	NOT COGEN	18.1	1/1/90	SCE	IMPERIAL	3505 HIGHWAY 111	HYDRA-CO ENTERPRISES, INC	WESTERN POWER GROUP, INC
COLMAC	A.K.A MECCA PLANT	WTE	BIOMASS	AG. & WOODWASTE	AGRICULTURAL WASTE	49.9	NOT COGEN	49.9	1/1/68	SCE	RIVERSIDE	62-300 GENE WELMAS DRIVE (HWY 111 AND AVENUE 62)	COLMAC ENERGY INC	COLMAC ENERGY
WESTERN ROCK PRODUCTS		WTE	BIOMASS	BIOMASS	POTENTIAL ENERGY RECOVERY	0.25	NOT COGEN	0.25	4/1/87	SCE	SAN BERNARDINO	31290 TROY ROAD	WESTERN ROCK PRODUCTS	WESTERN ROCK PRODUCTS
ACE COGENERATION COMPANY	ACE (ARGUS COGEN EXPANSION) COGEN	COAL	COAL	COAL	COAL-FIRED TOPPING CYCLE	97		108	5/1/85	SCE	SAN BERNARDINO	12801 MARIPOSA STREET	A/C POWER	A/C POWER /ACE COGEN COMPANY
ARGUS	NORTH AMERICAN CHEMICAL CO.	COAL	COAL	COAL	COAL-FIRED TOPPING CYCLE	62.5	COGEN	62.5	4/1/83	SCE	SAN BERNARDINO	13200 MAIN STREET	NORTH AMERICAN CHEMICAL CO	NORTH AMERICAN CHEMICAL CO
RIVERSIDE CEMENT COMPANY		COAL	COAL	COAL	COAL FIRED BOTTOMING CYCLE	17	COGEN	17	6/8/79	SCE	SAN BERNARDINO	19409 NATIONAL TRAILS HIGHWAY	RIVERSIDE CEMENT COMPANY	RIVERSIDE CEMMENT CO.
DIESELS		OIL/GAS	OIL/GAS	DIESEL		26	NOT COGEN			VERNON	LOS ANGELES	2705 SOTO STREET		
CO. SAN. DIST. #32 OF LA CO. (VALENCIA)		WTE	DIGESTER GAS	DIGESTER GAS	DIGESTER GAS/MUNICIPAL	0.5	NOT COGEN	0.5	9/22/87	SCE	LOS ANGELES	28185 THE OLD ROAD	L.A. COUNTY SANITATION DISTRICT	L.A. COUNTY SANITATION DISTRICT
TOTAL ENERGY FACILITY, CO. SANITA		OIL/GAS	OIL/GAS	DIGESTER GAS	GAS TURBINE COMBINED CYCLE	16.5	COGEN	16.5	6/12/95	SCE	LOS ANGELES	24501 SOUTH FIGUEROA	LA COUNTY SANITATION DISTRICT	COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
PLANT NO. 2, ORANGE COUNTY SANITA		WTE	DIGESTER GAS	DIGESTER GAS	DIGESTER GAS/OTHER	12	NOT COGEN	12	7/27/93	SCE	ORANGE	22212 BROOKHURST AVENUE		ORANGE COUNTY SANITATION DISTRICT
ALISO WATER MANAGEMENT AGENCY		WTE	DIGESTER GAS	DIGESTER GAS	DIGESTER GAS/MUNCIPAL	1.2	NOT COGEN	1.2	6/6/83	SCE	ORANGE	29201 LA PAZ ROAD	ALISO WATER MANAGEMENT AGENCY	ALISO WATER MANAGEMENT AGENCY
ORANGE COUNTY SANITATION DISTRICT PLANT 1	RECLAMATION PLANT #1-FOUNTAIN VALLEY	OIL/GAS	DIGESTER GAS	DIGESTER GAS	GAS-FUELEDRECIPROCATING ENGINE	4.5	COGEN	4.5	6/16/93	SCE	ORANGE	10844 ELLIS AVENUE	O'BRIEN ENERGY SYSTEM INC	ORANGE COUNTY SANITATION DISTRICT
CITY OF PALM SPRINGS		WTE	DIGESTER GAS	DIGESTER GAS	DIGESTER GAS/MUNICIPAL	0.25	NOT COGEN	0.25	5/5/83	SCE	RIVERSIDE	4375 MESQUITE	CITY OF PALM SPRINGS	CITY OF PALM SPRINGS
CHINO BASIN MUNICIPAL WATER DISTRICT		WTE	DIGESTER GAS	DIGESTER GAS	DIGESTER GAS/MUNICAPAL	0.58	NOT COGEN	0.58	12/28/92	SCE	SAN BERNARDINO	8555 ARCHIBALD AVENUE		
BRAWLEY		OIL/GAS	OIL/GAS	DISTILLATE OIL	COMBUSTION TURBINE	20	NOT COGEN	23	6/27/86	IID	IMPERIAL	750 DOGWOOD ROAD	IID	IID
SALTON SEA I, PHASE 2	FISH LAKE POWER CO./EARTH ENERGY INC-SALTON SEA I, PHASE 2	GEOTHERMAL	GEOTHERMAL	GEOTHERMAL	GEOTHERMAL	36	NOT COGEN	36	5/9/96	SCE	IMPERIAL	6922 CRUMMER ROAD	EARTH ENERGY	
DOUBLE WEIR		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	0.6	NOT COGEN	0.6	8/1/61	IID	IMPERIAL		IID	IID
DROP 1		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	5.2	NOT COGEN	6	10/1/84	IID	IMPERIAL		IID	IID
DROP 2		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - CONVENTIONAL	9	NOT COGEN	10	12/1/53	IID	IMPERIAL		IID	IID
DROP 3		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - CONVENTIONAL	9	NOT COGEN	9.8	2/1/41	IID	IMPERIAL		IID	IID
DROP 4		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - CONVENTIONAL	18.05	NOT COGEN	19.6	2/1/41	IID	IMPERIAL		IID	IID
DROP 5		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - CONVENTIONAL	3.3	NOT COGEN	4	3/1/82	IID	IMPERIAL		IID	IID
EAST HIGHLINE		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	1.1	NOT COGEN	2.4	9/1/84	IID	IMPERIAL		IID	IID
PILOT KNOB		HYDROELECTRIC	HYDRO	HYDRO	HRDRO,WATER	7	NOT COGEN	33	1/1/57	IID	IMPERIAL		IID	IID
SENATOR WASH		HYDROELECTRIC	HYDRO	HYDRO		7.2	NOT COGEN		8/1/86	IID	IMPERIAL		USBR	USBR
TURNIP		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - CONVENTIONAL	0.4	NOT COGEN	0.4	10/1/64	IID	IMPERIAL		IID	IID
AZUSA		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - CONVENTIONAL	2	NOT COGEN	3	2/1/49	PASADENA	LOS ANGELES			CITY OF PASADENA
ALAMO		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - CONVENTIONAL	17	NOT COGEN	17	7/31/86	SCE	LOS ANGELES	31849 N. LAKE HUGES ROAD	CDWR	CDWR
EAST PORTAL HYDRO STATION/CALLEGU	A.K.A. EAST PORTAL	HYDROELECTRIC	HYDRO	HYDRO	PRESSURE-REDUCING STATION	1.25	NOT COGEN	1.25	10/1/84	SCE	LOS ANGELES	OFF DEVONSHIRE ST, IN WEST CENTRAL PORTION OF CHATSHWORTH PARK	CALLEGUAS MWD	CALLEGUAS MWD
CITY OF EL SEGUNDO		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.52	NOT COGEN		11/6/89	SCE	LOS ANGELES	2151 EL SEGUNDO	CITY OF EL SEGUNDO	CITY OF EL SEGUNDO
FOOTHILL FEEDER		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	11	NOT COGEN	9	4/1/81	SCE	LOS ANGELES	31849 N. LAKE HUGHES ROAD	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
FOOTHILL		HYDROELECTRIC	HYDRO	HYDRO	RUN-OF-RIVER, GAS TURBINE	10	NOT COGEN	11	10/6/71	LADWP	LOS ANGELES	14351 SAN FERNANDO ROAD	LADWP	LADWP
FRANKLIN		HYDROELECTRIC	HYDRO	HYDRO	RUN-OF-RIVER, GAS TURBINE	2	NOT COGEN	2	6/3/21	LADWP	LOS ANGELES	1298 N BEVERLY DRIVE	LADWP	LADWP
G SQUARED ENERGY (ALAMITOS BARRIER)		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.25	NOT COGEN	0.25	12/23/86	SCE	LOS ANGELES	WOODRUFF AND WARDLOW	G SQUARED ENERGY NO. 2	G SQUARED ENGY NO. 2
GREG AVENUE		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	1	NOT COGEN	1	12/1/79	LADWP	LOS ANGELES	7554 GREG AVE	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
DOMINGUEZ GAP BARRIER	HYDRO ELECTRIC CONST (DOMINGUEZ GAP BARRIER)	HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.275	NOT COGEN	0.275	12/30/86	SCE	LOS ANGELES	218 PLACE AND ALAMEDA STREET	CAPITAL ENERGY COMPANY	G SQUARED ENERGY
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT	F.K.A. BASIN BARRIER HYDROELECTRIC	HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.93	NOT COGEN	0.95	12/23/85	SCE	LOS ANGELES	2155 E. EL SEGUNDO	BASIN BARRIER HYDRO ELECTRIC	WEATHERLY PRIVATE CA
RIO HONDO		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	1.8	NOT COGEN	1.9	3/1/84	SCE	LOS ANGELES	9540 MILLER WAY	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT

SCAG Region Power Plants

PLANT NAME	ALIAS	FACILITY TYPE	GENERAL FUEL	PRIMARY FUEL	TECHNOLOGY	ONLINE MW	COGEN	GROSS MW	DATE ONLINE	SERVICE AREA	COUNTY	ADDRESS	OPERATOR	OWNER
SAN DIMAS		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	10	NOT COGEN	9.9	6/1/81	SCE	LOS ANGELES	1507 SYCAMORE CANYON ROAD	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
SAN FERNANDO	SAN FERNANDO #1-#2	HYDROELECTRIC	HYDRO	HYDRO	RUN-OF-RIVER, TURBINE - PIPELINE	6.4	NOT COGEN	5.6	10/22/22	LADWP	LOS ANGELES	14031 SAN FERNANDO ROAD	LADWP	LADWP
SAN FRANCISQUITO 2		HYDROELECTRIC	HYDRO	HYDRO	RUN-OF-RIVER, TURBINE - PIPELINE	47	NOT COGEN	42	7/6/20	LADWP	LOS ANGELES	32400 SAN FRANCISQUITO CANYON ROAD	LADWP	LADWP
SAN FRANCISQUITO 1		HYDROELECTRIC	HYDRO	HYDRO	RUN-OF-RIVER, TURBINE - PIPELINE	75.5	NOT COGEN	69.4	4/16/17	LADWP	LOS ANGELES	37000 CLEARCREEK ROAD	LADWP	LADWP
SAN GABRIEL HYDROELECTRIC PROJECT		HYDROELECTRIC	HYDRO	HYDRO	SMALL HYDRO IMPROVEMENT PROJECT	4.975	NOT COGEN	4.975	10/17/87	SCE	LOS ANGELES	9700 NORTH HIGHWAY 39	HYDRO WEST	SAN GABRIEL HYDROELE
SAN DIMAS WASH		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	1.05	NOT COGEN	1.05	1/28/86	SCE	LOS ANGELES	190 EAST FOOTHILL BLVD	SAN GABRIEL VALLEY M	SAN GABRIEL VALLEY M
SANTA MONICA		HYDROELECTRIC	HYDRO	HYDRO		0.15	NOT COGEN		3/1/84	SCE	LOS ANGELES			CITY OF SANTA MONICA
SAWTELLE		HYDROELECTRIC	HYDRO	HYDRO	RUN-OF-RIVER, TURBINE - PIPELINE	0.6	NOT COGEN	0.6	6/1/86	LADWP	LOS ANGELES	SUNSET BLVD (1 1/2 MILE FROM UCLA)	LADWP	LADWP
SEPULVEDA CANYON		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	9	NOT COGEN	8.5	6/1/82	LADWP	LOS ANGELES	1751 N. SEPULVDEA BLVD	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
THREE VALLEYS MWD (FULTON ROAD STATION)		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.2	NOT COGEN	0.2	4/2/87	SCE	LOS ANGELES	2930 FULTON ROAD	THREE VALLEYS MWD	THREE VALLEYS M W D
THREE VALLEYS MWD (MIRAMAR)		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.52	NOT COGEN	0.52	4/13/87	SCE	LOS ANGELES	3300 N. PADUA	THREE VALLEYS MWD	THREE VALLEYS M W D
THREE VALLEYS MWD (WILLIAMS AVE STATION)		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.35	NOT COGEN	0.35	4/3/87	SCE	LOS ANGELES	3949 WILLIAMS AVE	THREE VALLEYS MWD	THREE VALLEYS M W D
VENICE SMALL CONDUIT		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	10	NOT COGEN	10.1	8/1/82	SCE	LOS ANGELES	3815 SEPULVEDA BLVD	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
VERDUGO		HYDROELECTRIC	HYDRO	HYDRO		0.4	NOT COGEN		12/1/84	SCE	LOS ANGELES			CITY OF GLENDALE
WALNUT VALLEY WATER DISTRICT (#1)		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.125	NOT COGEN	0.125	10/17/84	SCE	LOS ANGELES	4102 VALLEY BLVD.,	WALNUT VALLEY WATER DISTRICT	WALNUT VALLEY WATER DISTRICT
WILLIAM E. WARNE	WILLIAM E. WARNE #1-#2	HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - CONVENTIONAL	76	NOT COGEN	74.2	11/1/82	SCE	LOS ANGELES	31849 NORTH LAKE HUGHES ROAD	CDWR	CDWR
CITY OF LA HABRA		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.1	NOT COGEN		3/1/82	SCE	ORANGE	LAMBERT STREET AND WALNUT STREET	CITY OF LA HABRA	CITY OF LA HABRA
CITY OF SANTA ANA		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.195	NOT COGEN	0.195	6/30/86	SCE	ORANGE	2415 N. BRISTOL STREET	CITY OF SANTA ANA	CITY OF SANTA ANA
COYOTE CREEK		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	3	NOT COGEN	3.1	4/1/84	SCE	ORANGE	627 S. MONTE VISTA	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
FULLERTON HYDRO PARTNERS	FULLERTON HYDRO PARTNERS	HYDROELECTRIC	HYDRO	HYDRO	PRESSURE-REDUCING STATION	0.4	NOT COGEN	0.4	12/20/86	SCE	ORANGE	LAMBERT & EUCLID	FULLERTON HYDRO PARTNERS	FULLERTON HYDRO PNRS
IRVINE RANCH WATER DISTRICT	A.K.A. TURTLE ROCK-QUAIL HILL	HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.191	NOT COGEN	0.191	4/1/84	SCE	ORANGE	UNIVERSITY OF YALE, 3512 MICHELSON DRIVE	IRVINE RANCH WATER DISTRICT	IRVINE RANCH WTR DIS
MUNICIPAL WATER DIST OF ORANGE COUNTY		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.6	NOT COGEN	0.6	3/30/92	SCE	ORANGE		MUNICIPAL WATER DISTRICT OF ORANGE CO	MWD OF ORANGE COUNTY
VALLEY VIEW		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	3.85	NOT COGEN	4.1	7/1/76	SCE	ORANGE	4229 VALLEY VIEW AVE	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
YORBA LINDA FEEDER		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	5	NOT COGEN	5.1	11/1/81	SCE	ORANGE	3972 VALLEY VIEW AVE	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
CORONA SMALL CONDUIT		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	3	NOT COGEN	2.9	8/1/83	SCE	RIVERSIDE	1980 ADOBE AVE	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
SNOW CREEK		HYDROELECTRIC	HYDRO	HYDRO	RUN-OF-RIVER	0.3	NOT COGEN	0.3	2/2/88	SCE	RIVERSIDE	15100 SNOW CREEK	DESERT WATER AGENCY	DESERT WATER AGENCY
WHITEWATER		HYDROELECTRIC	HYDRO	HYDRO	RUN-OF-RIVER	1	NOT COGEN	1	4/11/86	SCE	RIVERSIDE	79 WHITEWATER CANYON DRIVE	DESERT WATER AGENCY	DESERT WATER AGENCY
LAKE HEMET MWD (NORTH FORK)		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.65	NOT COGEN	0.65	6/21/84	SCE	RIVERSIDE	48850 HIGHWAY 74	LAKE HEMET MWD	LAKE HEMET MWD
LAKE MATHEWS	A.K.A. COLO AQUEDUCT	HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	5	NOT COGEN	4.9	8/1/80	SCE	RIVERSIDE	18250 LA SIERRA AVENUE	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
PERRIS SMALL CONDUIT		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	8	NOT COGEN	7.9	5/1/83	SCE	RIVERSIDE	17801 LAKE PERRIS AVE	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
SAN GORGONIO		HYDROELECTRIC	HYDRO	HYDRO		0.728	NOT COGEN		2/1/89	SCE	RIVERSIDE			CITY OF BANNING
SAN GORGONIO 1		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	1.5	NOT COGEN	1.5	12/1/23	SCE	RIVERSIDE		SCE	SCE
SAN GORGONIO 2		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	0.7	NOT COGEN	0.9	12/1/23	SCE	RIVERSIDE		SCE	SCE
SAN GORGONIO UPPER		HYDROELECTRIC	HYDRO	HYDRO		0.41	NOT COGEN		12/1/89	SCE	RIVERSIDE			CITY OF BANNING
TEMESCAL SMALL CONDUIT		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	3	NOT COGEN	2.9	7/1/83	SCE	RIVERSIDE	EAGLE CANYON ROAD	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
DEVIL CANYON	A.K.A. CEDAR SPRINGS	HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - CONVENTIONAL	280	NOT COGEN	276.6	12/1/72	SCE	SAN BERNARDINO	6900 DEVIL CANYON ROAD	CDWR	CDWR
ETIWANDA I		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	23.9	NOT COGEN	23.9	6/1/94	SCE	SAN BERNARDINO	8248 ETIWANDA AVE	METROPOLITAN WATER DISTRICT	METROPOLITAN WATER DISTRICT
FONTANA		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	1.9	NOT COGEN	3	12/1/17	SCE	SAN BERNARDINO		SCE	SCE
LYTLE CREEK		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	0.6	NOT COGEN	0.6	10/1/04	SCE	SAN BERNARDINO		SCE	SCE
MILL CREEK 1		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	0.9	NOT COGEN	0.8		SCE	SAN BERNARDINO		SCE	SCE
MILL CREEK 2		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	0.3	NOT COGEN	0.3	5/1/04	SCE	SAN BERNARDINO		SCE	SCE
MILL CREEK 3		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	2.7	NOT COGEN	3	3/1/03	SCE	SAN BERNARDINO		SCE	SCE
MOJAVE SIPHON		HYDROELECTRIC	HYDRO	HYDRO	HYDRAULIC TURBINE - PIPELINE	32.4	NOT COGEN	32.4	6/1/95	SCE	SAN BERNARDINO		CDWR	CDWR

SCAG Region Power Plants

PLANT NAME	ALIAS	FACILITY TYPE	GENERAL FUEL	PRIMARY FUEL	TECHNOLOGY	ONLINE MW	COGEN	GROSS MW	DATE ONLINE	SERVICE AREA	COUNTY	ADDRESS	OPERATOR	OWNER
MONTE VISTA WATER DISTRICT		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.865	NOT COGEN	0.865	8/5/90	SCE	SAN BERNARDINO	5501 ARROW HIGHWAY	MONTE VISTA WATER DISTRICT	MONTE VISTA WTR DIST
ONTARIO 1		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	0.9	NOT COGEN	0.6	12/1/02	SCE	SAN BERNARDINO		SCE	SCE
ONTARIO 2		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	0.3	NOT COGEN	0.3	6/1/63	SCE	SAN BERNARDINO		SCE	SCE
PARKER (USBR)		HYDROELECTRIC	HYDRO	HYDRO	HYDRO,WATER	120	NOT COGEN	120	12/1/42	PG&E	SAN BERNARDINO		USBR	USBR
SAN BERNARDINO MWD (SITE 1720)		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.178	NOT COGEN	0.178	7/1/83	SCE	SAN BERNARDINO	WEST OF CAJON AND NORTH OF DEVORE ROAD	SAN BERNARDINO MWD.	SAN BERNARDINO MWD.
SANTA ANA 1		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	3.8	NOT COGEN	3.2		SCE	SAN BERNARDINO		SCE	SCE
SANTA ANA 2		HYDROELECTRIC	HYDRO	HYDRO		1.4	NOT COGEN	0.8	5/1/05	SCE	SAN BERNARDINO		SCE	SCE
SANTA ANA 3		HYDROELECTRIC	HYDRO	HYDRO	HYDRO, WATER	3.1	NOT COGEN	3.1	4/1/47	SCE	SAN BERNARDINO		SCE	SCE
SIERRA		HYDROELECTRIC	HYDRO	HYDRO		0.8	NOT COGEN	0.4	1/1/22	SCE	SAN BERNARDINO		SCE	SCE
WFA STATION 1		HYDROELECTRIC	HYDRO	HYDRO	P.R. STATION	0.224	NOT COGEN	0.224	8/26/94	SCE	SAN BERNARDINO			WATER FACILITY AUTH-A JPA
SPRINGVILLE HYDRO STATION/CALLEGU		HYDROELECTRIC	HYDRO	HYDRO	HYDRO	1	NOT COGEN	1	3/17/94	SCE	VENTURA	600 VILLA ZAMORA		CALLEGUAS MWD
CONEJO HYDRO STATION/CALLEGUAS MU		HYDROELECTRIC	HYDRO	HYDRO	PRESSURE-REDUCING STATION	0.55	NOT COGEN	0.55	10/1/82	SCE	VENTURA	2100 OLSEN ROAD	CALLEGUAS MWD	CALLEGUAS MWD
SANTA ROSA HYDRO STATION/CALLEGUA		HYDROELECTRIC	HYDRO	HYDRO	PRESSURE-REDUCING STATION	0.25	NOT COGEN	0.25	7/1/76	SCE	VENTURA	SANTA ROSA ROAD	CALLEGUAS MWD	CALLEGUAS MWD
CAMROSA COUNTY WATER DISTRICT		HYDROELECTRIC	HYDRO	HYDRO	GAS-FUELED RECIPROCATING ENGINE	0.15	NOT COGEN	0.15	6/11/87	SCE	VENTURA	WOODCREEK ROAD AND UPLAND ROAD	CAMROSA COUNTY WATER DIST.	CAMROSA COUNTY W. D.
SANTA FELICIA		HYDROELECTRIC	HYDRO	HYDRO	SMALL HYDRO IMPROVEMENT PROJECT	0.935	NOT COGEN	0.935	6/1/87	SCE	VENTURA		UNITED WATER CONSERVATION DISTRICT	UNITED WATER CONSERVATION DISTRICT
DEL RANCH LTD. (NILAND #2)	A.K.A. DEL RANCH, LTD. (NILAND #2)	GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	DOUBLE-FLASH CYCLE	38	NOT COGEN	42	5/1/86	SCE	IMPERIAL	7029 GENTRY ROAD	CALIFORNIA ENERGY COMPANY	CALENERGY
ELMORE LTD	A.K.A. ELMORE, LTD. (NILAND #3)	GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	DOUBLE-FLASH CYCLE	38	NOT COGEN	42	12/11/90	SCE	IMPERIAL	786 WEST SINCLAIR ROAD	CALIFORNIA ENERGY COMPANY	CALENERGY
GEM RESOURCES, LLC		GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	DOUBLE FLASH	20	NOT COGEN	40	6/1/89	SCE	IMPERIAL	3300 EAST EVAN HEWES HWY (8 MILES E OF HOLTVILLE & 1 MILE N OF I-8)	MISSION OPERATIONS & MAINTENANCE	GEO EAST MESA LIMITED PARTNERSHIP
GEM RESOURCES, LLC		GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	DOUBLE FLASH	20	NOT COGEN	40	6/1/89	SCE	IMPERIAL	3300 EAST EVAN HEWES HWY (8 MILES E OF HOLTVILLE & 1 MILE N OF I-8)	MISSION OPERATIONS & MAINTENANCE	GEO EAST MESA LIMITED PARTNERSHIP
HEBER GEOTHERMAL COMPANY	HEBER FIELD COMPANY	GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	DOUBLE-FLASH CYCLE	47	NOT COGEN	52	8/1/85	SCE	IMPERIAL	895 PITZER ROAD	OGDEN GEOTHERMAL OPERATIONS	CALPINE/ERC
LEATHERS L.P.	A.K.A LEATHERS,L.P.(NILAND #4)	GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	DOUBLE-FLASH CYCLE	38	NOT COGEN	42	11/7/89	SCE	IMPERIAL	342 WEST SINCLAIR ROAD	CALIFORNIA ENERGY COMPANY	CALENERGY
ORMESA GEOTHERMAL II		GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	BINARY CYCLE	18.5	NOT COGEN	18.5	12/31/87	SCE	IMPERIAL	3304 E. EVAN HEWES HIGHWAY	ORMESA OPERATORS	FPL ENERGY, INC.
SALTON SEA #1		GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	SINGLE-FLASH CYCLE	10	NOT COGEN	10	7/1/87	SCE	IMPERIAL	6920 LACK ROAD	CALIFORNIA ENERGY COMPANY	CALENERGY
SALTON SEA POWER GENERATION LP #2		GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	SINGLE-FLASH CYCLE	20	NOT COGEN	20	3/9/90	SCE	IMPERIAL	6920 LACK ROAD	CALIFORNIA ENERGY COMPANY	CALENERGY
SALTON SEA POWER GENERATION LP #3		GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	DOUBLE-FLASH CYCLE	49.8	NOT COGEN	49.8	1/3/89	SCE	IMPERIAL	6922 CRUMMER ROAD (& KUNS ROAD, SW OF NILAND, SALTON SEA)	CALIFORNIA ENERGY COMPANY	CALENERGY
SECOND IMPERIAL GEOTHERMAL		GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	DOUBLE-FLASH CYCLE	37	NOT COGEN	37	6/21/93	SCE	IMPERIAL	855 DOGWOOD RD	OGDEN SIGC GEOTHERMAL OPERATIONS	OGDEN POWER CORPORATION
VULCAN/BN GEOTHERMAL		GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	DOUBLE-FLASH CYCLE	34	NOT COGEN	34.5	12/6/85	SCE	IMPERIAL	7001 GENTRY ROAD	CALIFORNIA ENERGY COMPANY	CALENERGY
ORMESA I, IE, IH		GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	BINARY CYCLE	24	NOT COGEN	38	12/1/86	SCE	IMPERIAL	3300 E. EVAN HEWES HIGHWAY	PSC GEOTHERMAL SERVICES COMPANY	OESI POWER CORPORATION
ORMESA IE		GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	BINARY CYCLE	38	NOT COGEN	38	12/15/86	SCE	IMPERIAL	3300 E. EVAN HEWES HIGHWAY	PSC GEOTHERMAL SERVICES COMPANY	OESI POWER CORPORATION
ORMESA IH		GEOTHERMAL	GEOTHERMAL	HYDROTHERMAL	BINARY CYCLE	6.5	NOT COGEN	13.2	12/1/89	SCE	IMPERIAL	3300 E. EVAN HEWES HIGHWAY	PSC GEOTHERMAL SERVICES COMPANY	OESI POWER CORPORATION
FALCON FOAM PLASTICS		WTE	MSW	INDUSTRIAL WASTE	COMBUSTION TURBINE/TOPPING CYCLE	0.365	COGEN	0.365	3/5/90	SCE	LOS ANGELES	14110 TOWN AVE.	FALCON FOAM PLASTICS	FALCON FOAM PLASTICS
BIOGEN POWER I		WTE	MSW	INDUSTRIAL WASTE	INDUSTRIAL WASTE	16	NOT COGEN	18.6	1/26/88	SCE	SAN BERNARDINO	72 YATES WELL-15	BIOGEN POWER COMPANY	BIOGEN POWER COMPANY
PUENTE HILLS ENERGY RECOVERY A	PUENTE HILLS (GAS TURBINES)	WTE	LANDFILL GAS	LANDFILL GAS	GAS TURBINE	4	NOT COGEN	3.9	11/22/83	SCE	LOS ANGELES	2800 WORKMAN MILL ROAD	L.A. COUNTY SANITATION DISTRICT	L.A. COUNTY SANITATION DISTRICT
PUENTE HILLS ENERGY RECOVERY B	PUENTE HILLS (STEAM CYCLE PLANT)	WTE	LANDFILL GAS	LANDFILL GAS	STEAM TURBINE	50	NOT COGEN	50	8/8/86	SCE	LOS ANGELES	2800 WORKMAN MILL ROAD	L.A. COUNTY SANITATION DISTRICT	L.A. COUNTY SANITATION DISTRICT
SPADRA LANDFILL		WTE	LANDFILL GAS	LANDFILL GAS	STEAM TURBINE	8	NOT COGEN	8	2/21/90	SCE	LOS ANGELES	4125 W. VALLEY BLVD	L.A. COUNTY SANITATION DISTRICT	CA POLYTECHNIC POMONA

SCAG Region Power Plants

PLANT NAME	ALIAS	FACILITY TYPE	GENERAL FUEL	PRIMARY FUEL	TECHNOLOGY	ONLINE MW	COGEN	GROSS MW	DATE ONLINE	SERVICE AREA	COUNTY	ADDRESS	OPERATOR	OWNER
PALOS VERDES ENERGY RECOVERY FROM	PALOS VERDES LF	WTE	LANDFILL GAS	LANDFILL GAS	RECIPROCATING ENGINE	13	NOT COGEN	13	5/20/88	SCE	LOS ANGELES	25704 HAWTHORNE BLVD	L.A. COUNTY SANITATION DISTRICT	L.A. COUNTY SANITATION DISTRICT
RIO HONDO COMMUNITY COLLEGE DISTRICT		WTE	LANDFILL GAS	LANDFILL GAS	GAS FUELED RECIPROCATING ENGINE	0.45	COGEN		3/1/88	SCE	LOS ANGELES	3600 WORKMAN MILL RD	RIO HONDO COMMUNITY COLLEGE DIS	RIO HONDO COMM. COLLEGE DIST.
MM WEST COVINA LLC 1		WTE	LANDFILL GAS	LANDFILL GAS	LANDFILL GAS	6.5	NOT COGEN		1/1/93	LADWP	LOS ANGELES	2210 S. AZUSA AVE		
MM WEST COVINA LLC 2		WTE	LANDFILL GAS	LANDFILL GAS	LANDFILL GAS	6.8	NOT COGEN		1/1/99	LADWP	LOS ANGELES	2210 S. AZUSA AVE		
PRIMA DESHECHA LANDFILL		WTE	LANDFILL GAS	LANDFILL GAS	RECIPROCATING ENGINE	9	NOT COGEN	6	3/15/99	SDG&E	ORANGE	32250 LA PATA AVENUE	ORANGE COUNTY I.W.M.	ORANGE COUNTY I.W.M.
COYOTE CANYON FACILITY - GAS RECO		WTE	LANDFILL GAS	LANDFILL GAS	STEAM TURBINE	20	NOT COGEN	20	2/8/89	SCE	ORANGE	5531 COYOTE CANYON DRIVE	ORANGE COUNTY IWMD	ORANGE COUNTY IWMD
OXNARD LANDFILL	BAILARD LF	WTE	LANDFILL GAS	LANDFILL GAS	RECIPROCATING ENGINE	5.625	NOT COGEN	5.625	12/15/85	SCE	VENTURA	2501 NORTH VENTURA ROAD	J & C PROPERTIEAL	J & C PROPERTIES, ET AL.
CHIQUITA WATER RECLAMATION	SANTA MARGARITA WATER DISTRICT	OIL/GAS	OIL/GAS	METHANE	RECIPROCATING	0.27	NOT COGEN	0.27	3/1/88	SDG&E	ORANGE	28793 ORTEGA HWY.		SANTA MARGARITA WATER DISTRICT
CITY OF LONG BEACH (SERRF)	SOUTHEAST RESOURCE RECOVERY FACILITY	WTE	MSW	MSW	MUNICIPAL SOLID WASTE	34.6	NOT COGEN	34.6	7/4/88	SCE	LOS ANGELES	120 HENRY FORD AVENUE	CITY OF LONG BEACH	SOUTHEAST RR AUTHORITY
PENROSE POWER STATION		WTE	MSW	MSW	RECIPROCATING ENGINE	12	NOT COGEN	12	5/12/86	SCE	LOS ANGELES	8301 TUJUNGA AVENUE	P.L.E.S.	OGDEN ENERGY GROUP, INC.
TOYON CANYON LANDFILL	TOYON POWER STATION	WTE	MSW	MSW	RECIPROCATING ENGINE	12	NOT COGEN	12	5/12/86	SCE	LOS ANGELES	5050 MOUNT HOLLYWOOD DRIVE (GRIFFITH PARK)	P.L.E.S.	OGDEN ENERGY GROUP, INC.
MINNESOTA METHANE (BKKI)	MM WEST COVINA LLC 1 or BKK LANDFILL PHASE I	WTE	MSW	MSW	LANDFILL GAS RECOVERY, STEAM TURBINE	3.25	NOT COGEN	6.5	10/5/93	SCE	LOS ANGELES	2210 SOUTH AZUSA AVENUE	BKK CORPORATION	BKK CORPORATION
MINNESOTA METHANE (BKKII)	BKK LANDFILL II or MM WEST COVINA LLC II	WTE	MSW	MSW	LANDFILL GAS RECOVERY, STEAM TURBINE	6	NOT COGEN	6.5	10/5/98	SCE	LOS ANGELES	2210 SOUTH AZUSA AVENUE	BKK CORPORATION	BKK CORPORATION
MINNESOTA METHANE (LOPEZ)	CITY OF L.A. LOPEX CANYOU LANDFILL	WTE	MSW	MSW	RECIPROCATING ENGINE	6	NOT COGEN	6	1/5/99	SCE	LOS ANGELES	11950 LOPEZ CANYON ROAD		MINNESOTA METHANE
OLINDA POWER	OLINDA ALPHA SLF	WTE	MSW	MSW	RECIPROCATING ENGINE	5.625	NOT COGEN	5.625	10/25/84	SCE	ORANGE	1942 VALENCIA BLVD	ORANGE COUNTY IWMD	ORANGE COUNTY IWMD
O'BRIEN ENERGY SYSTEMS, INC. (COR		WTE	MSW	MSW	LANDFILL GAS RECOVERY	5.2	NOT COGEN	5.2	3/4/86	SCE	RIVERSIDE	1300 MAGNOLIA AVENUE	OBRIEN ENERGY SYSTEMS INC	O'BRIEN ENERGY SYSTEM
MINNESOTA METHANE (HIGHGROVE)	CITY OF L.A. LOPEX CANYOU LANDFILL or HIGHGRIVE SLF	WTE	MSW	MSW	REIPROCATING ENGINE	0.95	NOT COGEN	0.95	12/1/98	SCE	RIVERSIDE	1420 HIGHGROVE DUMP ROAD	RIVERSIDE COUNTY WMD	RIVERSIDE COUNTY WMD
EL CENTRO	EL CENTO #1-#4	OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE, COMBINED CYCLE	239.7	NOT COGEN	256	6/1/49	IID	IMPERIAL	485 EAST VILLA ROAD	IID	IID
ROCKWOOD		OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE	46	NOT COGEN	50	6/1/79	IID	IMPERIAL	4195 DOGWOOD ROAD	IID	IID
AES PLACERITA		OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE TOPPING CYCLE	110	COGEN	110	3/1/86	SCE	LOS ANGELES	20885 PLACERITA CANYON ROAD	AES PLACERITA INC	AES CORPORTATION, APPLIED ENERGY SERVICE
AMERICAN PRIVATE VENTURES - QUEEN MARY		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	1	CC		3/30/89	SCE	LOS ANGELES	1256 PIER LONG BEACH	AMERICAN PRIVATE POWER	WRATHER PORT PRPTIES
ANDERSON LITOGRAPH COMPANY		OIL/GAS	OIL/GAS	NATURAL GAS	GAS TURBINE COMBINED CYCLE	5	COGEN	5	7/19/95	SCE	LOS ANGELES	6802 ACCO STREET		
PLACERITA UNIT I	A.K.A. ARCO OIL & GAS COMPANY- PLACERITA I OR ARCO PLACERITA COGEN 1	OIL/GAS	OIL/GAS	NATURAL GAS	I.C. TOPPING CYCLE	21.76	COGEN	21.76	12/1/85	SCE	LOS ANGELES	25121 N.SIERRA HIGHWAY	ARCO	ARCO
PLACERITA UNIT II	A.K.A. ARCO OIL & GAS COMPANY- PLACERITA II OR ARCO PLACERITA COGEN 2	OIL/GAS	OIL/GAS	NATURAL GAS	I.C. TOPPING CYCLE	21.76	COGEN	21.76	12/1/85	SCE	LOS ANGELES	25121 N.SIERRA HIGHWAY	ARCO	ARCO WESTERN ENERGY
ARCO PETROLEUM PRODUCTS COMPANY		OIL/GAS	OIL/GAS	NATURAL GAS	CATALYTIC CRACKER BOTTOMING CYCLE	8	COGEN	8	5/1/85	SCE	LOS ANGELES	1801 EAST SUPULVEDA BLVD	ARCO PETROLEUM PRODUCTS	ACRO PETROLEUM PRODUCTS
WATSON COGEN		OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	385	COGEN	385	12/4/87	SCE	LOS ANGELES	22850 SOUTH WILMINGTON AVENUE	WATSON COGENERATION	WATSON COGENERATION COMPANY
BENTLEY MILLS		OIL/GAS	OIL/GAS	NATURAL GAS	GAS FUELED RECIPROCATING ENGINE	0.8	COGEN			SCE	LOS ANGELES	14641 E. DON JULIAN ROAD	BENTLEY MILLS	BENTLEY MILLS
BIOLA UNIVERSITY		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	1.124	COGEN	1.124	4/11/90	SCE	LOS ANGELES	13800 BIOLA AVE.	BIOLA UNIVERSITY	BIOLA UNIVERSITY
BIXBY KNOLLS TOWERS		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.124	COGEN	0.124	2/13/95	SCE	LOS ANGELES	3747 ATLANTIC AVE		
BROADWAY		OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE	162	NOT COGEN	155	1/1/55	PASADENA	LOS ANGELES	130 WALLIS	CITY OF PASADENA	CITY OF PASADENA
BURBANK	A.K.A. BURBANK COMBINED CYCLE	OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE	42	NOT COGEN			BURBANK	LOS ANGELES	164 WEST MAGNOLIA BLVD		BURBANK
CAL POLY UNIVERSITY, POMONA		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.115	COGEN	0.115	9/3/87	SCE	LOS ANGELES	3801 W. TEMPLE AVE.	CAL POLY - POMONA	CAL POLY - POMONA
CSU LONG BEACH (DORM)		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.15	COGEN		6/1/86	SCE	LOS ANGELES	5900 ATHERTON	CAL STATE LONG BEACH	CAL STATE LONG BEACH
CSU LONG BEACH (POOL)		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.2	COGEN	0.2	5/31/87	SCE	LOS ANGELES	1401 PALO VERDE	CSULB PLANT OPERATIONS	CSU LONG BEACH
CARSON COGENERATION COMPANY	A.K.A. ICE HAUS , CARSON COGENERATION COMPANY	OIL/GAS	OIL/GAS	NATURAL GAS	GAS TURBINE COMBINED CYCLE	50.4	COGEN	50.4	1/1/80	SCE	LOS ANGELES	17171 SOUTH CENTRAL AVENUE	CARSON COGENERATION COMPANY	CARSON COGENERATION COMPANY
CERRITOS COLLEGE		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.15	COGEN	0.15	12/31/85	SCE	LOS ANGELES	11110 E. ALONDRA, NORWALK	CERRITOS COLLEGE	CERRITOS COLLEGE
EL SEGUNDO REFINERY #1		OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TOPPING CYCLE	1.5	COGEN	1.5	11/15/76	SCE	LOS ANGELES	324 WEST EL SEGUNDO BLVD	CHEVRON U.S.A.	CHEVRON U.S.A.

SCAG Region Power Plants

PLANT NAME	ALIAS	FACILITY TYPE	GENERAL FUEL	PRIMARY FUEL	TECHNOLOGY	ONLINE MW	COGEN	GROSS MW	DATE ONLINE	SERVICE AREA	COUNTY	ADDRESS	OPERATOR	OWNER
EL SEGUNDO REFINERY III		OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	48.2	COGEN	48.2	3/14/96	SCE	LOS ANGELES	324 WEST EL SEGUNDO BLVD	CHEVRON U.S.A.	CHEVRON PRODUCTS COMPANY/GOVT REPORTING
CITY OF LONG BEACH (BELMONT PLAZA POOL)		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.12	COGEN	0.12	1/4/91	SCE	LOS ANGELES	4000 OLYMPIC PLAZA	CITY OF LONG BEACH	CITY OF LONG BEACH
CLAREMONT TENNIS CLUB		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.2	COGEN	0.2	7/14/88	SCE	LOS ANGELES	1777 PADUA AVE.	CLAREMON TENNIS CLUB	CLAREMON TENNIS CLUB
COGENIC - ERNE SANITARIUM		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.1	COGEN	0.1	7/1/85	SCE	LOS ANGELES	527 W. REGENT STREET	ST ERNE SANITARIUM	ST ERNE SANITARIUM
JEFFERSON SMURFIT CORPORATION	A.K.A. CCOA VERNON COGEN	OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	40	COGEN	40	12/31/85	SCE	LOS ANGELES	201 E. 57TH STREET	CONTAINER CORP OF AMERICA	JEFFERSON SMURFIT CORP.
COTIJA CHEESE		OIL/GAS	OIL/GAS	NATURAL GAS	COGENERATION	0.12	COGEN	0.12	5/4/95	SCE	LOS ANGELES	15130 EAST NELSON AVE		
PITCHESS COGEN	PITCHESS HONOR RANCH	OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	28.709	COGEN	28.709	7/14/88	SCE	LOS ANGELES	29300 THE OLD ROAD	COUNTY OF LOS ANGELES	PITCHESS COGEN, LOS ANGELES COUNTY-ISD
DECOGEN	A.K.A. TAZCOGEN	OIL/GAS	OIL/GAS	NATURAL GAS	NATURAL GAS	0.5	COGEN	0.5	4/28/94	SCE	LOS ANGELES	444 NASH ST. (& GRANT STREET)		
EL SEGUNDO	EL SEGUNDO #1-#4	OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE	1020	NOT COGEN	996.5	5/1/55	SCE	LOS ANGELES	301 VISTA DEL MAR	NRG/NORTHERN STATES POWER CO.	NRG/DESTEC
N.P. COGENERATION, INC	A.K.A. FPB COGENERATION PARTNERS, L.P.	OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	24.7	COGEN	24.7	11/29/82	SCE	LOS ANGELES	5605 EAST 61ST STREET	FPB COGEN INC	GE CONTRACTUAL SERVICES
GLENARM	A.K.A. GLENARM #1-#2	OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE	60.8	NOT COGEN	57.8	1/1/55	PASADENA	LOS ANGELES	45 EAST GLENARM AVENUE	CITY OF PASADENA	CITY OF PASADENA
GRAYSON		OIL/GAS	OIL/GAS	NATURAL GAS	STEAM & COMBUSTION TURB, COMBINED CYCLE	272.5	NOT COGEN	282.5	4/1/41	GLENDALE	LOS ANGELES	634 BEKINS WAY	CITY OF GLENDALE	CITY OF GLENDALE
GREAT WESTERN MALTING COMPANY		OIL/GAS	OIL/GAS	NATURAL GAS	GAS FUELED RECIPROCATING ENGINE	0.75	COGEN	0.75	1/3/95	SCE	LOS ANGELES	5945 MALT AVE.		
HARBOR	A.K.A. HARBOR #6 -#9	OIL/GAS	OIL/GAS	NATURAL GAS	GAS TURBINE, NATURAL GAS	364	COGEN	373.5	1/1/54	LADWP	LOS ANGELES	161 N. ISLAND AVENUE	HARBOR COGENERATION CO	LADWP
HARBOR COGENERATIION	A.K.A. CHAMPLIN; HARBOR COGENERATION PROJECT	OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE TOPPING CYCLE	80	COGEN	80	1/1/90	SCE	LOS ANGELES	420 HENRY FORD AVENUE	HARBOR COGENERATION CO	HARBOR COGENERATION COMPANY
HAYNES	A.K.A. HAYNES #1-#6	OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE, NATURAL GAS	1570	NOT COGEN	1606	1/1/66	LADWP	LOS ANGELES	6801 WESTMINSTER AVENUE	LADWP	LADWP
HENRY MAYO NEWHALL MEMORIAL HOSPITAL		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.45	COGEN	0.45	2/23/87	SCE	LOS ANGELES	23845 W. MC BEAN PARKWAY	HENRY MAYO NEWHALL MEMORIAL	HENRY MAYO NEWHALL MEMORIAL
LA CANADA USD (LA CANADA SCHOOL)		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.12	COGEN	0.12	9/15/87	SCE	LOS ANGELES	4463 OAK GROVE DRIVE	LA CANADA UNIFIED SCHOOLS	
LONG BEACH	LONG BEACH #8-#9	OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE, STEAM TURBINE	530	NOT COGEN	586.5	1/1/76	SCE	LOS ANGELES	2665 WEST SEASIDE BLVD, TERMINAL ISLAND	NRG/NORTHERN STATES POWER CO.	NRG/DESTEC
LUNDY (THAGARD OIL)		OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	1.4	COGEN	1.4	4/15/91	SCE	LOS ANGELES	9301 SOUTH GARFIELD AVENUE	EUA/ONSITE COGEN L.P.	LUNDAY THAGARD CO.
MAGNOLIA		OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE, COMBINED CYCLE	81.7	NOT COGEN	87.6	1/1/49	BURBANK	LOS ANGELES	164 WEST MAGNOLIA BLVD	CITY OF BURBANK	CITY OF BURBANK
METAL SURFACES		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.35	COGEN	0.35	6/9/93	SCE	LOS ANGELES	6060 SHULL STREET	METAL SURFACES, INC.	
MICRO UTILITY (FOSS PLANTING)	MICRO UTILITY PARTNERS OF AMERICA (FOSS PLANTING)	OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.1	COGEN	0.1	7/11/88	SCE	LOS ANGELES	8140 SECURA WAY	MICRO UTILITY PARTNERS OF AMERICA	FOSS PLATING INC.
MICRO UTILITY (QUAKER)	MICRO UTILITY PARTNERS OF AMERICA (QUAKER)	OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.1	COGEN	0.1	12/29/87	SCE	LOS ANGELES	7937 CHATFIELD	MICRO UTILITY PARTNERS OF AMERICA	TRAIN JOHNSON POWER
MICRO UTILITY (SAFE PLANTING)	MICRO UTILITY PARTNERS OF AMERICA (SAFE PLTG)	OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.1	COGEN	0.1	8/15/88	SCE	LOS ANGELES	18001 RAILROAD STREET	MICRO UTILITY PARTNERS OF AMERICA	TRAIN JOHNSON POWER
TORRANCE REFINERY		OIL/GAS	OIL/GAS	NATURAL GAS	CT/INDUSTRIAL TOPPING CYCLE	41.9	COGEN	42	5/1/83	SCE	LOS ANGELES	3700 WEST 190TH STREET	MOBIL OIL COMPANY	MOBIL OIL COMPANY
MT. SAN ANTONIO GARDENS		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.12	COGEN		1/1/85	SCE	LOS ANGELES	900 E. HARRISON AVE	MT SAN ANTONIO GARDENS	MT. SAN ANTONIO GDN.
O'BRIEN CALIFORNIA COGEN (CAL MILK)	A.K.A. CALIFORNIA MILK PRODUCERS	OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	35	COGEN	35	8/20/89	SCE	LOS ANGELES	17306 FALLON AVENUE	O'BRIEN CALIFORNIA COGEN LTD	O'BRIEN CALIFORNIA COGEN LTD
OLIVE		OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE, GAS TURBINE	152.5	NOT COGEN	172	1/1/59	BURBANK	LOS ANGELES	164 WEST MAGNOLIA BLVD	CITY OF BURBANK	CITY OF BURBANK
PAPER PAK PRODUCTS		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	1.4	COGEN	1.4	10/1/84	SCE	LOS ANGELES	1941 WHITE AVENUE	PAPER PAK PRODUCTS	PAPER PAK PRODUCTS
PETROMINERALS CORPORATION	PETROMINERALS CORPORATION	OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.5	COGEN	0.5	6/24/86	SCE	LOS ANGELES	29007 1/2 HASLEY CANYON RD	PETROMINERALS CORP	PETROMINERALS CORP
POMONA POWER FACILITY		OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	3.3	COGEN	3.3	10/4/87	SCE	LOS ANGELES	800 E. BONITA AVENUE	A. JOHNSON, ENERGY DEV INC	POMONA G P INC
POMONA VALLEY COMMUNITY HOSPITAL		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.8	COGEN	0.8	2/15/87	SCE	LOS ANGELES	1798 NORTH GAREY AVENUE	POMONA VALLEY COMMUNITY HOSPITAL	POMONA VALLEY COMMUNITY HOSPITAL
PRESBYTERIAN INTERCOMMUNITY HOSPITAL		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.48	COGEN		11/9/83	SCE	LOS ANGELES	12102 WASHINGTON BLVD.	PRESBYTERIAN INTERCOMM. HOSPITA	PRESBYTERIAN INTERCOMM. HOSPITAL
REDONDO BEACH GENERATING STAT	REDONDO #1-#8	OIL/GAS	OIL/GAS	NATURAL GAS		1310	NOT COGEN	1579.45	1/1/48	SCE	LOS ANGELES	1100 HARBOR DRIVE	SCE	AES CORP.
RHONE-POULENC (DOMINGUEZ PLANT)	RHONE-POULENC BASIC CHEMICALS CO.	OIL/GAS	OIL/GAS	NATURAL GAS	PROCESS STEAM PLANT/BOTTOMING CYCLE	4.9	COGEN	5	8/6/76	SCE	LOS ANGELES	20720 SOUTH WILMINGTON AVE	RHONE-POULENC BASIC CHEMICALS	RHONE-POULENC BASIC CHEMICALS

SCAG Region Power Plants

PLANT NAME	ALIAS	FACILITY TYPE	GENERAL FUEL	PRIMARY FUEL	TECHNOLOGY	ONLINE MW	COGEN	GROSS MW	DATE ONLINE	SERVICE AREA	COUNTY	ADDRESS	OPERATOR	OWNER
SANTA MONICA BAY HOTEL		OIL/GAS	OIL/GAS	NATURAL GAS	CT/INDUSTRIAL TOPPING CYCLE	0.95	COGEN	0.95	11/17/89	SCE	LOS ANGELES	1700 OCEAN AVENUE	SANTA MONICA HOTEL ASSOC LTD	LOEWS SANTA MONICA BEACH HOTEL
SCATTERGOOD	SCATTERGOOD #1-#3	OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE, NATURAL GAS	803	NOT COGEN	823.2	12/1/58	LADWP	LOS ANGELES	12700 VISTA DEL	LADWP	LADWP
SAN GABRIEL COGEN	SIMPSON PAPER COMPANY or SAN GABRIEL MILL	OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	36	COGEN	36	11/18/85	SCE	LOS ANGELES	100 NORTH ERIE STREET	SIMPSON PAPER COMPANY	TRACTEBEL ELECTRICITY & GAS
SMURFIT POMONA MILL	SMURFIT NEWSPRINT CORPORATION	OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	12	COGEN	12	6/1/85	SCE	LOS ANGELES	2205 WEST MT. VERNON AVENUE	GARDEN STATE NEWSPRINT	SMURFIT NEWSPRINT CORP.
SOUTHERN CALIFORNIA GAS		OIL/GAS	OIL/GAS	NATURAL GAS	GAS FUELED RECIPROCATING ENGINE	0.55	COGEN	0.55	10/30/87	SCE	LOS ANGELES	1801 S. ATLANTIC BLVD.	TULARE CO CORRECTIONAL CENTER	SO.CALIF.GAS CO.
ST. JOHN'S HOSPITAL AND HEALTH CENTER		OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	1.08	COGEN	1.08	2/5/92	SCE	LOS ANGELES	1328 22ND STREET	ST. JOHN'S HOSPITAL & HEALTH CENTER	ST.JOHN'S HOSPITAL &HEALTH CTR
COLDGEN; SUNLAW COGEN #1	FEDERAL COGENERATION PLANT	OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	56	COGEN	56	5/1/84	SCE	LOS ANGELES	4151 EAST FRUITLAND AVENUE	SUNLAW ENERGY CORP/COGEN PARTNERSHIP	SUNLAW ENERGY CORP/COGEN PARTNERSHIP
THE EPISCOPAL HOME		OIL/GAS	OIL/GAS	NATURAL GAS	GAS FUELED RECIPROCATING ENGINE	0.2	COGEN	0.2	1/1/86	SCE	LOS ANGELES	1428 S. MARENGO	J.A. TRENT & ASSOCIATES	THE EPISCOPAL HOME
THE FORUM #1		OIL/GAS	OIL/GAS	NATURAL GAS	GAS FUELED RECIPROCATING ENGINE	0.115	COGEN	0.115	4/1/85	SCE	LOS ANGELES	3900 W. MANCHESTER	THE FORUM	THE FORUM
VALLEY	VALLEY #1-#4	OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE, NATURAL GAS	517	NOT COGEN	545.6	1/1/54	LADWP	LOS ANGELES	9430 SAN FERNANDO ROAD	LADWP	LADWP
VANGUARD (ELECTRONIC PLATING)	A.K.A. VANGUARD/ ELECTRONIC PLATING	OIL/GAS	OIL/GAS	NATURAL GAS	GAS FUELED RECIPROCATING ENGINE	0.1	COGEN	0.1	2/1/98	SCE	LOS ANGELES	13021 S. BUDLONG AVE	VANGUARD/ELECTRONIC PLATING	VANGUARD/ELECTRONIC PLATING
VERNON		OIL/GAS	OIL/GAS	NATURAL GAS	INTERNAL COMBUSTION	30.6	NOT COGEN	41.8	1/1/33	VERNON	LOS ANGELES	2715 E 50TH ST	VERNON MUNICIPAL LIGHT DEPT.	CITY OF VERNON
WHEELABRATOR NORWALK ENERGY COMPANY	A.K.A. METROPOLITAN STATE HOSPITAL	OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	29	COGEN	29	9/10/87	SCE	LOS ANGELES	11500 S. NORWALK BLVD	WHEELABRATOR NORKWALK EGY CO	WHEELABRATOR NORKWALK EGY CO
WHITTIER UHSD (LA SERNA HIGH SCHOOL)		OIL/GAS	OIL/GAS	NATURAL GAS	GAS FUELED RECIPROCATING ENGINE	0.1	COGEN		1/4/90	SCE	LOS ANGELES	15301 EAST YOUNGWOOD (& LA SERNA RD)	LA SERNA HIGH SCHOOL	LA SERNA HIGH SCHOOL
COLDGEN; SUNLAW COGEN #2	U.S. GROWERS COGENERATION PLANT	OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	56	COGEN	28.5	1/1/86	SCE	LOS ANGELES	3470 EAST VERNON AVENUE	SUNLAW ENERGY CORP/COGEN PARTNERSHIP	SUNLAW ENERGY CORP/COGEN PARTNERSHIP
CBS STUDIOS		OIL/GAS	OIL/GAS	NATURAL GAS		1.4	COGEN	1.4	1/1/88	PG&E	LOS ANGELES	7800 BEVERLY BLVD.	ONSITE ENERGY, CORP.	
CALIFORNIA INSTITUTE OF TECHNOLOGY	A.K.A. CAL-TECH	OIL/GAS	OIL/GAS	NATURAL GAS		4.2	COGEN	5.3	3/1/84	SCE	LOS ANGELES	950 SOUTH WILSON ST		CALIFORNIA INSTITUTE OF TECHNOLOGY
CIVIC CENTER COGENERATION		OIL/GAS	OIL/GAS	NATURAL GAS		26.4	COGEN	26.4	5/1/88	SCE	LOS ANGELES	301 NORTH BROADWAY		
ST. LUKE MEDICAL CENTER		OIL/GAS	OIL/GAS	NATURAL GAS		1	COGEN	1	1/1/83	SCE	LOS ANGELES	2632 EAST WASHINGTON BLVD.		ORNDNA HEALTH CORPORATION
UCLA SOUTH CAMPUS CENTRAL CHILLER COGEN		OIL/GAS	OIL/GAS	NATURAL GAS		30.4	COGEN	30.4	4/1/90	SCE	LOS ANGELES	405 HILGUARD AVENUE	PARSONS MAIN, INCORPORATED	UCLA REGENTS
UCLA COGENERATION	A.K.A. SOUTH CAMPUS CENTRAL CHILLER COGEN	OIL/GAS	OIL/GAS	NATURAL GAS		43	COGEN	43	1/6/94	SCE	LOS ANGELES	721 CIRCLE DRIVE SOUTH	PARSONS MUNICIPAL SERVICES	UCLA REGENTS
WILMINGTON COGENERATION		OIL/GAS	OIL/GAS	NATURAL GAS		28	COGEN	28.25	12/1/88	SCE	LOS ANGELES	2300 EAST PACIFIC COAST HWY		PRAXAIR INCORPORATED
TEXACO LOS ANGELES REFINERY EXPANSION (WILMINGTON)		OIL/GAS	OIL/GAS	NATURAL GAS		60	NOT COGEN	60	1/1/88	LADWP	LOS ANGELES	2101 EAST PACIFIC COAST HWY		EQUILON ENTERPRISES LLC, LA REFINING
ALL METALS PROCESSING OF ORANGE COUNTY		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.175	COGEN	0.175	10/5/94	SCE	ORANGE	8401 STANDUSTRIAL	ALL METALS PROCESSING COMPANY	
AMERICAN CORNERSTONE (HOLIDAY INN)		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.15	COGEN	0.15	6/1/88	SCE	ORANGE	222 W. HOUSTON	G.G. FULLERTON HOLIDAY INN	INTEGRATED TOTAL EGY
AMERICAN MCGAW		OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE & GAS TURBINE	8.6	COGEN		10/1/81	SCE	ORANGE	2525 MCGAW AVENUE (INTERSECTS: JAMBOREE RD)	AMERICAN MC GAW	AMERICAN MC GAW
AMERICAN MCGAW #2		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-TURBINE	6.1	COGEN	6.1	2/21/95	SCE	ORANGE	2525 MCGAW AVENUE (INTERSECTS: JAMBOREE RD)	AMERICAN MC GAW	AMERICAN MC GAW
ANAHEIM GAS TURBINE		OIL/GAS	OIL/GAS	NATURAL GAS	GAS TURBINE, NATURAL GAS	45.55	NOT COGEN	49.3	6/13/88	ANAHEIM	ORANGE	1144 N KRAEMER BLVD	ANAHEIM PUBLIC UTILTIES DEPT.	CITY OF ANAHEIM
PCA METAL FINISHING		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.1	COGEN	0.1	12/15/94	SCE	ORANGE	1726 EAST ROSSLYNN AVE		
RED LION INN		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.46	COGEN	0.46	6/15/87	SCE	ORANGE	3050 BRISTOL	THUNDERBIRD/RED LION CORP	RED LION INN
ROYALTY CARPET MILLS		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.425	COGEN	0.425	2/15/95	SCE	ORANGE	17352 DERIAN AVENUE		
SOUTHERN CALIFORNIA GAS (HYATT REGENCY)		OIL/GAS	OIL/GAS	NATURAL GAS	FUEL CELL/WASTEHEAT RECOVERY	0.2	COGEN	0.2	6/14/92	SCE	ORANGE	17900 JAMBOREE BLVD		
TURBINE TECH		OIL/GAS	OIL/GAS	NATURAL GAS	GAS FUELED RECIPROCATING ENGINE	0.15	COGEN	0.15	12/9/88	SCE	ORANGE	4700 1/2 SAN ANTONIO ROAD	FULLERTON UNIFIED SCHOOL DISTRICT	TURBINE TECHNOLOGY
UNOCAL RESEARCH	A.K.A. UNOCAL RESEARCH	OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	3.623	COGEN	3.623	12/27/90	SCE	ORANGE	376 S. VALENCIA AVENUE	UNOCAL	UNOCAL
CES ENERGY ALBERHILL		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.56	COGEN	0.56	5/4/91	SCE	RIVERSIDE	14741 LAKE STREET	COGENIC ENEGY SYSTEMS (CES) ALBERHILL, L	CES ALBERHILL, LTD

SCAG Region Power Plants

PLANT NAME	ALIAS	FACILITY TYPE	GENERAL FUEL	PRIMARY FUEL	TECHNOLOGY	ONLINE MW	COGEN	GROSS MW	DATE ONLINE	SERVICE AREA	COUNTY	ADDRESS	OPERATOR	OWNER
CES ENERGY CORONA (PACIFIC CLAY)		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.6	COGEN	0.6	6/15/90	SCE	RIVERSIDE	20325 TEMESCAL CANYON ROAD	PACIFIC CLAY PRODUCTS	PACIFIC CLAY PRODUCTS
MUNICIPAL COGEN		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	1.3	COGEN	1.3	4/1/85	SCE	RIVERSIDE	205 NORTH EL CIELO	CITY OF PALM SPRINGS	CITY OF PALM SPRINGS
CITY OF PALM SPRINGS (SUNRISE PLAZA)		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.641	COGEN	0.65	6/13/85	SCE	RIVERSIDE	403 S. CERRITOS DRIVE	CITY OF PALM SPRINGS	CITY OF PALM SPRINGS
COACHELLA		OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE, NATURAL GAS	80	NOT COGEN	92.8	6/1/73	IID	RIVERSIDE	1280 GRAPEFRUIT BLVD.	IID	IID
CORONA ENERGY PARTNERS	CORONA COGEN	OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	42	COGEN	42	5/21/88	SCE	RIVERSIDE	1130 WEST RINCON STREET	CORONA ENERGY PARTNERS	CORONA ENERGY PARTNERS
EUA/FRCII (MONTEREY COUNTRY CLUB)	EUA/FRCII ENERGY ASSOCIATES (MONTEREY COUNTRY CLUB)	OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.115	COGEN	0.115	2/6/91	SCE	RIVERSIDE	41500 MONTEREY AVE.	THE MONTEREY COUNTRY CLUB	THE MONTEREY COUNTRY CLUB
EUA/FRCII (PALM VALLEY COUNTRY CLUB)	EUA/FRCII ENERGY ASSOCIATES (PALM VALLEY COUNTRY CLUB)	OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.41	COGEN	0.41	3/25/91	SCE	RIVERSIDE	39205 PALM VALLEY	J.A. TRENT & ASSOCIATES	THE PALM VALLEY C C
EUA/FRCII (VINTAGE COUNTRY CLUB)	A.K.A. EUA/FRCII ENERGY ASSOCIATES (VINTAGE COUNTRY CLUB)	OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.6	COGEN	0.06	7/12/91	SCE	RIVERSIDE	75001 VINTAGE DRIVE WEST		RIDGEWOOD POWER CORP
RIVERSIDE CANAL POWER COMPANY	A.K.A. HIGHGROVE	OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE	154	NOT COGEN	169	8/1/52	SCE	SAN BERNARDINO	12700 TAYLOR STREET	SCE	THERMO ECOTEK
INLAND PAPERBOARD & PACKAGING	A.K.A. ONTARIO MILL or INLAND CONTAINER CORPORATION	OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	41.06	COGEN	41.06	1/1/25	SCE	SAN BERNARDINO	5101 JURUPA STREET	INLAND CONTAINER CORPORATION	INLAND CONTAINER CORPORATION
LOMA LINDA UNIVERSITY		OIL/GAS	OIL/GAS	NATURAL GAS	CT PROCESS STEAM PLANT/TOPPING	13.4	COGEN	13.4	4/1/80	SCE	SAN BERNARDINO	11100 ANDERSON ST	LOMA LINDA UNIVERSITY	LOMA LINDA UNIVERSITY
MCANALLY EGG RANCH		OIL/GAS	OIL/GAS	NATURAL GAS	NATURAL GAS	0.12	COGEN	0.12	1/1/94	SCE	SAN BERNARDINO			
MICRO UTILITY (LAKE ARROWHEAD HILTON)	MICRO UTILITY PARTNERS (LK. ARROWHEAD HILTON)	OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.28	COGEN	0.28	9/13/88	SCE	SAN BERNARDINO	27984 HIGHWAY 189	MICRO UTILITY PARTNERS OF AMERICA	LAKE ARROWHEAD HILTON
WESTEND	NORTH AMERICAN CHEMICAL COMPANY	OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	15	COGEN	15	6/25/79	SCE	SAN BERNARDINO	13200 MAIN STREET	NORTH AMERICAN CHEMICAL CO	NORTH AMERICAN CHEMICAL CO.
INDECK ONTARIO COGEN	ONTARIO COGENERATION (SUNKIST)	OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	12	COGEN	12	11/1/84	SCE	SAN BERNARDINO	705 EAST CALIFORNIA STREET	INTERNATIONAL POWER TECHNOLOGY	INDECK CAPITAL, INC.
RIALTO USD		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.1	COGEN	0.1	12/20/89	SCE	SAN BERNARDINO	1321 N. LILAC AVE.	EISENHOWER HIGH SCHOOL	EISENHOWER HIGH SCHOOL
RIMROCK VILLAGE PARTERSHIP		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.12	COGEN	0.12	11/1/89	SCE	SAN BERNARDINO	1801 RIMROCK	RIMROCK VILLAGE APARTMENTS	RIMROCK VILLAGE APARTMENTS
SAN ANTONIO COMMUNITY HOSPITAL		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	1.744	COGEN	1.744	9/16/85	SCE	SAN BERNARDINO	999 SAN BARNARDINO ROAD	SAN ANTONIO COMMUNITY HOSPITAL	SAN ANTONIO COMMUNIT
MOUNTAINVIEW POWER CO. (SAN BERNARDINO)	SAN BERNARDINO	OIL/GAS	OIL/GAS	NATURAL GAS	STREAM TURBINE	126	NOT COGEN	130.56	1/1/57	SCE	SAN BERNARDINO	25770 SAN BERNARDINO AVENUE	SCE	THERMO ECOTEK
TRANSAMERICAN PLASTICS		OIL/GAS	OIL/GAS	NATURAL GAS	GAS FUELED RECIPROCATING ENGINE	0.34	COGEN			SCE	SAN BERNARDINO	5601 SANTA ANA ST.	TRANSAMERICAN PLASTICS	SAM CHEBIER
VICTOR VALLEY COMMUNITY HOSPITAL		OIL/GAS	OIL/GAS	NATURAL GAS	GAS FUELED RECIPROCATING ENGINE	0.135	COGEN			SCE	SAN BERNARDINO	15248 11TH STREET	VICTOR VLY COMMUNITY HOSPITAL	VICTOR VALLEY HOSPIT
COOLWATER		OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE, COMBINED CYCLE	628	NOT COGEN	726.9	1/1/72	SCE	SAN BERNARDINO	EAST SANTA FE STREET	RELIANT ENERGY	RELIANT ENERGY
DOUBLETREE HOTEL		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.2	COGEN	0.2	11/3/89	SCE	VENTURA	2055 HARBOR BLVD.	DOUBLE TREE HOTEL	DOUBLE TREE HOTEL
OXNARD WWTP		OIL/GAS	OIL/GAS	NATURAL GAS	GAS TURBINE COMBINED CYCLE	1.5	COGEN	1.5	1/12/82	SCE	VENTURA	6001 SOUTH PERKINS ROAD	CITY OF OXNARD	CITY OF OXNARD
CITY OF VENTURA - EASTSIDE WTR RENOVATION		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.548	COGEN	0.548	4/2/92	SCE	VENTURA	1400 SPINNAKER DRIVE		CITY OF VENTURA
SITHE ENERGIES	A.K.A. OXNARD ENERGY FACILITY or E.F. OXNARD	OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	48.5	COGEN	48.5	4/13/90	SCE	VENTURA	550 S. DIAZ AVENUE	E.F. OXNARD INC.	SITHE ENERGIES, INC.
CAMARRILLO NUG	O.L.S. ENERGY (CAMARILLO STATE HOSPITAL)	OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	28.04	COGEN	28.04	12/27/87	SCE	VENTURA	1947 WEST POTRERO ROAD	O.L.S. ACQUISITION	ENERGY INITIATIVES, INC.
ORMOND BEACH		OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE - STEAM TURBINE	1500	NOT COGEN	1612.8	1/1/71	SCE	VENTURA	6635 SOUTH EDISON DRIVE	RELIANT ENERGY	RELIANT ENERGY
OXNARD HIGH SCHOOL		OIL/GAS	OIL/GAS	NATURAL GAS	GAS-FUELED RECIPROCATING ENGINE	0.12	COGEN	0.12	5/29/90	SCE	VENTURA	937 W. 5TH STREET	OXNARD UNION HIGH SCHOOL DISTRI	OXNARD HIGH SCHOOL
PROCTER & GAMBLE (OXNARD) 1		OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	19.876	COGEN	19.876	1/1/84	SCE	VENTURA	800 NORTH RICE AVENUE	PROCTOR & GAMBLE	NATIONAL GAS & ELECTRIC
PROCTER & GAMBLE (OXNARD) 2		OIL/GAS	OIL/GAS	NATURAL GAS	COMBINED CYCLE/TOPPING CYCLE	49.9	COGEN	49.9	11/17/89	SCE	VENTURA	800 NORTH RICE AVENUE	PROCTOR & GAMBLE	PROCTER & GAMBLE
ROCKWELL INTERNATIONAL	A.K.A. SCTI/POWER PAK	OIL/GAS	OIL/GAS	NATURAL GAS	MISCELLANEOUS/ BOTTOMING CYCLE	28	COGEN		5/30/93	SCE	VENTURA	SECTION 1 FACILITY, BLDG. 355, WOOLSEY CANYON ROAD	ENERGY TECHNOLOGY ENGINEERING C	ROCKWELL INTERN'L
ROCKWELL INTERNATIONAL (KALINA)		OIL/GAS	OIL/GAS	NATURAL GAS	MISCELLANEOUS/ BOTTOMING CYCLE	3.5	COGEN		8/25/92	SCE	VENTURA	6633 CANOGA AVE.	ROCKWELL INTERNATIONAL	ROCKWELL INTERNATIONAL
US GOVERNMENT, NAVAL ENGINEERING COMMAND		OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	0.8	COGEN		5/1/89	SCE	VENTURA	NAVAL RESERVATION, BUILDING 373	NAVAL FACILITIES ENGINEERING CO	NAVAL FACILITIES ENGINEERING COMMAND

SCAG Region Power Plants

PLANT NAME	ALIAS	FACILITY TYPE	GENERAL FUEL	PRIMARY FUEL	TECHNOLOGY	ONLINE MW	COGEN	GROSS MW	DATE ONLINE	SERVICE AREA	COUNTY	ADDRESS	OPERATOR	OWNER
UNOCAL RINCON COGENERATION PROJECT		OIL/GAS	OIL/GAS	NATURAL GAS	STEAM TURBINE/ENHANCED OIL RECOVERY	3.5	COGEN	3.5	2/20/92	SCE	VENTURA	5777 W. PACIFIC COAST HWY		UNOCAL
VINTAGE PETROLEUM		OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	3.3	COGEN	3.3	3/11/80	SCE	VENTURA	290 MAPLE COURT	CONOCO INC	CONOCO, INC.
HUENEME PAPER MILL	WILLIAMETTE INDUSTRIES	OIL/GAS	OIL/GAS	NATURAL GAS	COMBUSTION TURBINE/TOPPING CYCLE	25	COGEN	25	3/14/86	SCE	VENTURA	5936 PERKINS RD.	WILLIAMETTE INDUSTRIES INC	WILLIAMETTE INDUSTRIES INC
EL SEGUNDO REFINERY #2		OIL/GAS	OIL/GAS	NATURAL GAS, BUTANE	COMBUSTION TURBINE/TOPPING CYCLE	76.7	COGEN	76.7	12/29/87	SCE	LOS ANGELES	324 WEST EL SEGUNDO BLVD	CHEVRON U.S.A.	CHEVRON PRODUCTS COMPANY/GOVT REPORTING
CHINO NUG	O.L.S. ENERGY (CHINO MEN'S INSTITUTION)	OIL/GAS	OIL/GAS	NATURAL GAS, DIST	COMBINED CYCLE/TOPPING CYCLE	27.6	COGEN	27.75	12/24/87	SCE	SAN BERNARDINO	5601 EUCALYPTUS AVENUE	O.L.S. ENERGY	ENERGY INITIATIVES, INC.
LOS ANGELES REFINERY		OIL/GAS	OIL/GAS	NATURAL GAS, REFINER		54	COGEN	42.1	1/1/87	SCE	LOS ANGELES	1660 WEST ANAHEIM STREET		TOSCO REFINING CO.
ALAMITOS GENERATING STAT	A.K.A. ALAMITOS #1-#7, ALAMITOS	OIL/GAS	OIL/GAS	NATURAL, DISTILLATE	STEAM TURBINE, GAS TURBINE	2088	NOT COGEN	2120.53	9/1/56	SCE	LOS ANGELES	690 NORTH STUDEBAKER ROAD	SCE	AES CORP. c/o WILLIAMS
HUNTINGTON BEACH		OIL/GAS	OIL/GAS	NATURAL, DISTILLATE	STEAM TURBINE, COMBUSTION TURBINE	563	NOT COGEN	1008.53	6/1/58	SCE	ORANGE	21730 NEWLAND STREET	SCE	AES CORP.
ETIWANDA		OIL/GAS	OIL/GAS	NATURAL, DISTILLATE	STEAM TURBINE, COMBUSTION TURBINE	911	NOT COGEN	1049.13	7/1/53	SCE	SAN BERNARDINO	8996 ETIWANDA AVENUE	RELIANT ENERGY	RELIANT ENERGY
MANDALAY		OIL/GAS	OIL/GAS	NATURAL, DISTILLATE	STEAM TURBINE, COMBUSTION TURBINE	435	NOT COGEN	573.33	5/1/59	SCE	VENTURA	393 NORTH HARBOR BLVD.	RELIANT ENERGY	RELIANT ENERGY
SOUTHERN CALIFORNIA GAS (SCAQMD)		OIL/GAS	OIL/GAS	OIL/GAS	FUEL CELL/WASTEHEAT RECOVERY	0.2	COGEN	0.2	4/10/92	SCE	LOS ANGELES	21865 EAST COPLEY DRIVE		
ARCO C.Q.C. KILN	ARCO WILMINGTON CALCINER	COAL	COAL	PETROLEUM COKE	MISCELLANEOUS/BOTTOMING CYCLE	34	COGEN	34	1/7/89	SCE	LOS ANGELES	1175 CARRACK AVE.	ARCO WILMINGTON CALCINER	ARCO PRODUCTS CO.
CASTAIC		HYDROELECTRIC	HYDRO	PUMPED STORAGE	PUMPED STORAGE,WATER	1495	NOT COGEN	1331	2/9/72	LADWP	LOS ANGELES	37700 TEMPLILN HIGHWAY	LADWP	LADWP
COMMERCE REFUSE-TO-ENERGY		WTE	MSW	REFUSE-DERIVED	MUNICIPAL SOLID WASTE	12	NOT COGEN	12	1/1/54	SCE	LOS ANGELES	5926 SHEILA STREET	LOS ANGELES SANITATION DISTRICT	COMMERCE REFUSE TO ENERGY
SEGS 1 AND 2/SUNRAY ENERGY, INC.	A.K.A. DAGGETT LEASING CORPORATION (SEGS I)	SOLAR	SOLAR	THERMAL	PARABOLIC TROUGH	43.8	NOT COGEN	43.8	11/2/84	SCE	SAN BERNARDINO	35100 EAST SANTA FE STREET	DAGGETT LEASING CORPORATION	LUZ SOLAR PTNRS II
LUZ SEGS II		SOLAR	SOLAR	THERMAL	PARABOLIC TROUGH	30	NOT COGEN		12/24/85	SCE	SAN BERNARDINO	35100 SANTA FE STREET	DAGGETT LEASING CORPORATION	LUZ SOLAR PTNRS II
SEGS 3, LUZ SOLAR PARTNERS LTD		SOLAR	SOLAR	THERMAL	PARABOLIC TROUGH	35	NOT COGEN	35	12/18/86	SCE	SAN BERNARDINO	41100 HIGHWAY 395	LUZ SOLAR PARTNERS III	KRAMER JUNCTION COMPANY
SEGS 4, LUZ SOLAR PARTNERS LTD		SOLAR	SOLAR	THERMAL	PARABOLIC TROUGH	35	NOT COGEN	35	12/23/86	SCE	SAN BERNARDINO	41100 HIGHWAY 395	LUZ SOLAR PARTNERS IV	KRAMER JUNCTION COMPANY
SEGS 9, LUZ SOLAR PARTNERS LTD	A.K.A. HARPER LAKE PLANT	SOLAR	SOLAR	THERMAL	PARABOLIC TROUGH	80	NOT COGEN	80	10/11/90	SCE	SAN BERNARDINO	43880 HARPER DRY LAKE ROAD	LUZ ENGINEERING CORP.	LUZ SOLAR PARTNERS INC, LTD.
SEGS 5, LUZ SOLAR PARTNERS LTD	LUZ SEGS V	SOLAR	SOLAR	THERMAL	PARABOLIC TROUGH	35	NOT COGEN	35	9/29/87	SCE	SAN BERNARDINO	41100 HIGHWAY 395	LUZ SOLAR PRTNERS V	KRAMER JUNCTION COMPANY
SEGS 6, LUZ SOLAR PARTNERS LTD	LUZ SEGS VI	SOLAR	SOLAR	THERMAL	PARABOLIC TROUGH	35	NOT COGEN	35	12/25/88	SCE	SAN BERNARDINO	41100 HIGHWAY 395	LUZ SOLAR PARTNERS VI	KRAMER JUNCTION COMPANY
SEGS 7, LUZ SOLAR PARTNERS LTD	LUZ SEGS VII	SOLAR	SOLAR	THERMAL	PARABOLIC TROUGH	35	NOT COGEN	35	12/29/88	SCE	SAN BERNARDINO	41100 HIGHWAY 395	LUZ SOLAR PARTNERS VII	KRAMER JUNCTION COMPANY
SEGS 8 - LUZ SOLAR PARTNERS LTD	A.K.A. HARPER LAKE PLANT	SOLAR	SOLAR	THERMAL	PARABOLIC TROUGH	80	NOT COGEN	80	12/29/89	SCE	SAN BERNARDINO	43880 HARPER DRY LAKE ROAD	LUZ ENGINEERING CORP.	HARPER LAKE COMPANY VIII
ALTA MESA POWER PURCHASE CONTRACT	A.K.A. SWANMILL FARMS I-II	WIND	WIND	WIND	WINDPARK	24.57	NOT COGEN	27	12/31/88	SCE	RIVERSIDE		SEAWEST INDUSTRIES, INC.	MARK TECHNOLOGIES CO
ALTECH III		WIND	WIND	WIND	WINDPARK	32.874	NOT COGEN	32.874	12/18/85	SCE	RIVERSIDE	62195 GARRET AVENUE	SEAWEST ENERGY GROUP	ALTECH ENERGY INC.
DIFWIND FARMS LTD V		WIND	WIND	WIND	WINDPARK	7.884	NOT COGEN	7.9	10/15/86	SCE	RIVERSIDE	63-665 19TH AVENUE	FORAS SERVICE CORP	DIFWIND PARTNERS
DIFWIND PARTNERS (DIFWIND FARMS L		WIND	WIND	WIND	WINDPARK	14.154	NOT COGEN	15.063	12/18/85	SCE	RIVERSIDE	62195 GARRET AVE	CORAM	ENERGY CONVERSION TE
EUI MANAGEMENT PH, INC.		WIND	WIND	WIND	WINDPARK	25.535	NOT COGEN	25.535	12/31/85	SCE	RIVERSIDE		EUI MANAGEMENT PH, INC/ENERGY UNLIMITED	FPL ENERGY, INC
KAREN AVENUE WIND		WIND	WIND	WIND	WINDPARK	3	NOT COGEN	11.655	1/31/85	SCE	RIVERSIDE	KAREN AVENUE	EUI MANAGEMENT PH, INC.	EUI MANAGEMENT P. H.
GAEL ENERGY L.P.	GAEL ENERGY L.P.	WIND	WIND	WIND	WINDPARK	8	NOT COGEN	8	4/13/90	SCE	RIVERSIDE		WINDSONG ENERGY	GREAT AMERICAN INDUSTRIES, INC
MESA (OWNERS: ZOND-PANAERO I AND		WIND	WIND	WIND	WINDPARK	29.9	NOT COGEN	30	11/29/84	SCE	RIVERSIDE	11001 NORTH WHITE WATER CANYON	MOGUL WIND	MOGUL WIND
PAINTED HILLS WIND DEVELOPERS		WIND	WIND	WIND	WINDPARK	19.265	NOT COGEN	19.265	12/1/85	SCE	RIVERSIDE		PHOENIX ENERGY, LIMITED	PHOENIX ENERGY LTD.
PHOENIX ENERGY LIMITED		WIND	WIND	WIND	WINDPARK	13.51	NOT COGEN	13.51	1/10/85	SCE	RIVERSIDE	79 W INDIAN SEC 22, PALM SPRINGS CA 92262	SEAWEST ENERGY GROUP	RENEWABLE ENERGY VEN
EAST WINDS		WIND	WIND	WIND	WINDPARK	4.165	NOT COGEN	4.165	1/7/85	SCE	RIVERSIDE	79 W INDIAN SEC 22	SEAWEST ENERGY GROUP INC.	SEAWEST ENERGY GROUP
WHITEWATER HILL 3		WIND	WIND	WIND	WINDPARK	3	NOT COGEN	3	3/1/83	SCE	RIVERSIDE		SAN GORGONIO FARMS	SECTION 28 TRUST
SAN JACINTO POWER COMPANY		WIND	WIND	WIND	WINDPARK	4.435	NOT COGEN	18.95	12/1/85	SCE	RIVERSIDE	79 WEST INDIAN	DON DOUTHWRIGHT	ROBERT SMITH
WHITEWATER HILL 28		WIND	WIND	WIND	WINDPARK	28	NOT COGEN	28	4/19/85	SCE	RIVERSIDE			
SECTITON 28 TRUST (SANDBERG III)		WIND	WIND	WIND	WINDPARK	20.756	NOT COGEN	44.446	1/22/85	SCE	RIVERSIDE		SAN GORGONIO FARMS,	SAN GORGONIO FARMS,
EDOM HILL WIND PARK, SO. CALIF. S	A.K.A. PALM SPRINGS WIND PARK	WIND	WIND	WIND	WINDPARK	10.465	NOT COGEN	20	3/15/85	SCE	RIVERSIDE	79 VARNER/EDOM HILL, DESERT HOT SPRINGS CA 92240	SO. CALIFORNIA SUNBELT DEV.	SO.CALIF.SUNBELT DEV

SCAG Region Power Plants

PLANT NAME	ALIAS	FACILITY TYPE	GENERAL FUEL	PRIMARY FUEL	TECHNOLOGY	ONLINE MW	COGEN	GROSS MW	DATE ONLINE	SERVICE AREA	COUNTY	ADDRESS	OPERATOR	OWNER
WINDPOWER PARTNERS 1993, L.P. (TR		WIND	WIND	WIND	WINDPARK	18.237	NOT COGEN	16.2	12/22/86	SCE	RIVERSIDE	18510 KAREN RD	WINTEC, LTD. ADDITION D	WINTEC, LTD.
THE BANK OF NEW YORK TRUST 2		WIND	WIND	WIND	WINDPARK	9.35	NOT COGEN	10	3/2/90	SCE	RIVERSIDE		WIND POWER PARTNERS 1991, L.P.	WIND POWER PARTNERS 1991, L.P.
ZOND CABAZON DEVELOPMENT CORP.	A.K.A. VMSO IV CORPORATION - CABAZON WIND PARK	WIND	WIND	WIND	WINDPARK	40	NOT COGEN	40	12/3/84	SCE	RIVERSIDE	79 VERBENA, CABAZON CA 92230	VMSO IV CORPORATION	VMSO IV CORPORATION
WESTWIND TRUST		WIND	WIND	WIND	WINDPARK	16.207	NOT COGEN	22.5	12/31/85	SCE	RIVERSIDE	CAMERON CANYON RD	WESTWIND ASSOCIATION	WESTWIND ASSOCIATION
WINDPOWER PARTNERS 1993, L.P. (BU		WIND	WIND	WIND	WINDPARK	13.5	NOT COGEN	13.5	12/13/84	SCE	RIVERSIDE	62125 DILLON	RIVERVIEW VENTURES	FRED NOBLE
WINDPOWER PARTNERS 1993, L.P (RIV		WIND	WIND	WIND	WINDPARK	6.2	NOT COGEN	6.2	3/12/87	SCE	RIVERSIDE		S & L RANCH	SIGMUND J. LICHTER
WINDPOWER PARTNERS 1993, L.P. (WH		WIND	WIND	WIND	WINDPARK	5.007	NOT COGEN	6.3	12/27/85	SCE	RIVERSIDE		SAN GORGONIO FARM IN	SAN GORGONIO FARM IN
WINDUSTRIES	F.K.A. WINDINDUSTRIES	WIND	WIND	WIND	WINDPARK	9.8	NOT COGEN	10	11/24/85	SCE	RIVERSIDE	62925 GARNET	WINDUSTRIES, INC.	WINDUSTRIES INC.

Appendix B

SCAG Region Energy Facility Status



CALIFORNIA ENERGY COMMISSION - SCAG REGION ENERGY FACILITY STATUS

6/18/02

Projects Approved Over 300 MW	Status	Capacity (MW)	Construct. Completed (%)	Location	Original On-line Date	Current On-line Date*
Huntington Beach Unit 3 - AES	Construction	225	99	Orange Co.	11/01	7/02
Huntington Beach Unit 4 - AES	Construction	[225]	99	Orange Co.	11/01	on hold
On Line by Summer 02		225				
High Desert - Constellation	Construction	830	54	San Bernardino	7/03	7/03
Blythe - Caithness & FPL	Construction	520	72	Riverside Co.	4/03	3/03
On Line by Summer 03		1,350				
Mountainview - AES	Construction	1,056	15	San Bernardino	6/03	6/04
Op & Const Subtotal		2,631				
Over 300 MW Subtotal		**2,631**				
Projects Approved Under 300 MW						
Wildflower Indigo 1&2 - Intergen	*Operational*	*90*	*100*	*Riverside Co.*	*7/01*	*7/26/01*
Drews - Alliance	*Operational*	*40*	*100*	*San Bernardino*	*9/01*	*8/15/01*
Wildflower Indigo 3 - Intergen	*Operational*	*45*	*100*	*Riverside Co.*	*9/01*	*9/10/01*
Century - Alliance	*Operational*	*40*	*100*	*San Bernardino*	*9/01*	*9/15/01*
On Line by Summer 01		215.0				
Pegasus Energy - Delta Power	*cancelled*	*[181]*	*0*	*San Bernardino Co.*	*cancelled*	*cancelled*
Under 300 MW Subtotal		**215.0**				
Approved Total		**2,846.0**				

Projects in Review Over 300 MW	Process	Capacity (MW)	Project Type	Location	Estimated Decision Date	Estimated On-line Date**
El Segundo Repower 2/ - Dynergy/NRG	12-mo. AFC	630	Replacement	Los Angeles Co.	11/02	11/04
Inland Empire Comb. Cyc. - Calpine	12-mo. AFC	670	Green Field	Riverside Co.	1/03	1/05
Blythe II Comb. Cyc.-Caithness&FPL	6/12-mo. AFC	520	Green Field	Riverside Co.	11/02	5/04
Over 300 MW Subtotal		**1,820**				
Projects in Review Under 300 MW						
City of Vernon Comb. Cyc.	6-mo. AFC	134	Brown Field	Los Angeles Co.	12/02	12/04
Magnolia - SoCal Power Authority	12-mo. AFC	250	Expansion	Los Angeles Co.	12/02	12/04
Under 300 MW Subtotal		**384**				
Review Total		**2,204**				

Projects Announced Over 300 MW	Process	Capacity (MW)	Project Type	Location	Estimated Filing Date	Estimated On-line Date**
Ocotillo Comb. Cycle - Intergen	6/12-mo. AFC	[900]	Green Field	Riverside Co.	unknown	unknown
Teayawa Comb. Cyc. - Calpine	6/12-mo. AFC	600	Green Field	Riverside Co.	unknown	unknown
Over 300 MW Subtotal		**600**				
Projects Announced Under 300 MW						
BP Arco Watson	6/12-mo. AFC	[96]	Expansion	Los Angeles Co.	unknown	unknown
Salton Sea Geothermal - Cal Energy	6-mo. AFC	180	Green Field	Imperial Co.	6/02	9/04
Berry Petrol. Pacerita	6-mo. AFC	[50]	Brown Field	Los Angeles Co.	unknown	unknown
Under 300 MW Subtotal		**180**				
Announced Total		**780**				

Projects Planned Over 300 MW	Process	Capacity (MW)	Project Type	Location	Estimated Filing Date	Estimated On-line Date**
Combined Cycle	12-mo. AFC	[1000]	Replacement	Los Angeles Co.	unknown	unknown
Planned Total		**0**				

Notes:
* Estimated on-line date if construction is not delayed.
** Estimated on-line date if approved and constructed as proposed.
Projects in italics are emergency siting projects.
Megawatts in [ ] are not included in totals.
1/ 1002 MW replaced with 1200 MW for a net increase of 198 MW
2/ 350 MW replaced with 630 MW for a net increase of 280 MW

Greenfield - undeveloped site
Brownfield - developed site
Expansion - New unit at existing power plant site, no loss of existing generation
Repower - Modification of existing equipment
Replacement - Demolition of old plant and construction of new plant

On-line date is expected to be delayed beyond the date shown.
According to developers, the new online date will be determined when the markets are favorable and financing is available.
Approved
In Review
Expected and disclosed
Expected but undisclosed
Cancelled, suspended, withdrawn or on hold
Operational / on-line

Appendix C

State of California Demand Side Programs



State of California Demand Side Programs

4/29/02

Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
Residential Sector								
Residential Innovative Peak Demand Reduction Program	Statewide	Lead					Rebates available through summer 02	Incentives to residential customers for peak reducing efforts, including tune-ups of air conditioners, high performance windows, sealed ducts and shade screens. (GF)
Residential Building Standards	Statewide	Lead	Fund IOU Participa-tion, technical support				Effective 6/1/01 New stds adopt in 2003	Applies to all new construction, affects all builders and building departments, provide benefits to all homeowners and renters (ERPA, PGC, DOE, Ratepayers)
Residential Retrofit Standards Study (AB 549)	Statewide	Lead	Possible Funding				Complete 1/1/04	Recommend methods to reduce peak load in existing buildings including mandatory standards (PGC, ERPA)
Residential Appliance Standards	Statewide	Lead	Fund IOU Participa-tion, technical support				adopted 2/6/02, New stds. 2004	Affects manufactures. Benefits all consumers (ERPA, PGC, DOE, Ratepayers)
Federal Funding for Training Production Home Builders	Statewide	Lead					Ongoing	Available to home builders and building departments (ERPA, DOE)
Federal Funding for Building Departments	Statewide	Lead					Ongoing	CEC Hotline, training and support available to all Calif. building departments. (ERPA, DOE)
Residential Solar PV Turnkey Installation	Statewide	Technical support		Lead - Financing			Proposed	Program will modify SMUD-type program statewide, working with multiple partners. Seeks economies of scale to wean buyers off public subsidies. Muni utilities, local government, private parties (CPA)
Emerging Renewable Buydown Program	Statewide	Lead					Ongoing	Provide incentives for the installation of new, onsite, emerging generation technologies (e.g.- PV, small wind). Residential through industrial applications. Approximately $25 million per year. (PGC)
Residential Advanced Interval Meters	Statewide, in selected locations		Establish Rate Structure	Lead - Financing		Muni's to Adopt Time Differen-tiated Tariffs	Loan negotiations pending	Residential pilot of 10,000 meters. Loan contingent on applicant piecing together TOU tariffs, aggregated demand-response, and customer services (CPA)

State of California Demand Side Programs

Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
Residential Sector Continued								
Appliance, HVAC, and other efficiency measure rebates	Large and small IOUs		Lead	Financing - Statewide			Ongoing CPA loans to start Q4 '02	Rebates to consumers and incentives for distributors and manufacturers. CPA financing planned for Energy Star appliances. (PGC, GF, CPA)
New Construction and Retrofit Incentives	IOU Service Areas	Technical support	Lead				Ongoing and proposed	Incentives offered for new construction and remodeling improvements that exceed Title 24 requirements. Local third party programs and IOU programs. (PGC)
Distributed Generation Incentives Program	IOU Service Areas		Lead				Ongoing	Provides financial incentives to install DG. Waives certain charges for renewable DG (Ratepayers.)
Net Metering Program	IOU Service Areas		Lead				Ongoing and proposed	Establishes rate and safety rules for selling excess self-generated power back to grid. (Ratepayers)
Time of Use Rate Structure	IOU Service Areas		Lead				Ongoing	Voluntary program that allows customers to take service from IOU at time differentiated rates. (Ratepayers)
Demand Response Pilot programs	SMUD and PG&E	Lead					Design phase, pilots summer 2002	Residential customers on experimental critical peak pricing tariffs in SMUD. A pilot in PG&E area will educate customers to adopt demand responsive and energy efficiency (GF)
Smart Thermostat pilots	SDG&E/SCE	Evaluation support	Lead				Design phase, pilots scheduled for summer 2002	Program design set; IOUs recruiting customers (PGC)
AC Cycling	SCE		Lead				Ongoing.	Residential and commercial customers may participate. Participants receive bill credits in exchange for having their A/C units turned off or cycled on and off up to 6 hours per day. (Ratepayers)

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Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
Commercial and Industrial Sector								
Demand Responsive Building Systems	Statewide	Lead	Considering Incentives and Programs	Optional Financing			Rebates available for small commercial. CPA loans start Q4 '02	Installation of more demand responsiveness systems and meters for any commercial or industrial customers above 100kW (GF)
Real Time (interval) Meters	Statewide	Lead	Establish Rate Structure	Financing turnkey meter deployment	Technical Support		CEC ongoing installations. CPA approved 1st of 3 loans 4-26-02 for 10,000 meters.	CEC meters for customers over 200 kW (GF); CPUC requires IOU meter recipients to enroll in a Time-of-Use rate schedule. CPA meters for vendors to customers less than 200 kW; financing turnkey meter deployment 10,000 - millions of meters. (CPA)
Nonresidential Building Standards	Statewide	Lead	Fund IOU Participa-tion, technical support				Effective 6/1/01, New stds adopt in 2003	Applies to all new construction and tenant improvements, affects builders and building departments (ERPA, PGC, DOE, Ratepayers)
Nonresidential Appliance Standards	Statewide	Lead	Fund IOU Participa-tion, technical support				Adopted 2/6/02, New stds. 2004	Applies to manufacturers, affects building owners (ERPA, PGC, DOE, Ratepayers)
Nonresidential Retrofit Standards Study (AB 549)	Statewide	Lead	Possible Funding				Complete 1/1/04	Recommend methods to reduce peak load in existing buildings including mandatory standards (PGC, ERPA)
Innovative Peak Demand Reduction Program	Statewide	Lead					Rebates available through summer 02	Incentives to the commercial/industrial customers to reduce demand. Projects include lighting retrofits (GF)
Various Federal Programs	Statewide	Lead					Ongoing Annual Program	Includes: Rebuild America, High Performance School Demonstration Program, and Federal support for Building Standards support efforts. (DOE)
Department of Energy NICE3 Program	Statewide	Lead					Ongoing Annual Program	Serves any industry in Calif. pilot testing an energy saving or environmentally preferred change to their process. (DOE)

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Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
Commercial and Industrial Sector Continued								
DOE Industries of the Future Program	Statewide	Lead					Ongoing Annual Program	Serves industries selected by Industries of Future Program incl. glass, metal casting, petroleum refining. (DOE)
Tax-Exempt Industrial Development Bonds for Efficiency & Clean Energy	Statewide	Technical Support		Lead - Financing		CDLAC authorized & CIDFAC IDB bond guidance	Launched 4/02	$30 million allocation for 2002, available to small manufacturers with <$10 million near-term capital investment in city/county
Energy Efficiency & Distributed Generation Loans to Business with Repayment via Utility Bills	Statewide	Technical Support	Considering utility bill repayment mechanism	Lead - Financing			Loan repay mechanism proposed 1/02; Loans to start Q4 '02	$200 million loan program planned. Adding utility bill repayment expands market to leased space & debt-constrained organizations under-represented in most State & utility programs. (CPA)
Cool Roofs	Hot areas of state	Lead		Optional Financing			Rebates available through 6/03. CPA loans start Q4 '02	Provide incentives and other measures to lower air conditioning loads (GF, CPA)
Emerging Renewable Buydown Program	Statewide	Lead					Ongoing	Provide incentives for the installation of new, onsite, emerging generation technologies (e.g.- PV, small wind). Residential through industrial applications. Approximately $25 million per year. (PGC)
Incentives for Commercial Lighting	Large and small IOU Service Areas		Lead	Optional Financing - Statewide			PUC 0ngoing. CPA loans start Q4 '02	Retrofit Commercial Buildings with High Efficient Lighting systems by IOUs and third parties. Sierra Pacific and SoCalWater (Bear Valley Electric) Servicc Territories (Ratepayers, GF, CPA)
Non Residential New Construction and Retrofit	IOU Service Areas		Lead				Ongoing and proposed	Incentives for construction or comprehensive renovations of commercial and industrial buildings. (PGC)
Non Residential Process Overhaul, Motor Change out, HVAC, Lighting	IOU Service Areas		Lead	Optional Financing - Statewide			Ongoing and proposed	Incentives for improving energy efficiency in manufacturing processes, HVAC, variable speed motors, high efficiency lighting. (PGC)

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Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
Commercial and Industrial Sector Continued								
Traditional Interruptible Programs (TIP)	IOU Service Areas		Lead				Tariffs extended through Dec. 2003.	Participants receive rate discounts in return for specific load amounts to be curtailed during Stage 2 alerts. Participants typically have a monthly demand of at least 500 kW. (Ratepayers)
Base Interruptible Program (BIP)	IOU Service Areas	Deploy Enabling Technologies	Lead				Tariffs extended through Dec. 2003.	Participants receive capacity payments in return for specific load amounts to be curtailed during Stage 2 alerts; participants must be able to curtail 15% of their load, with a minimum load drop of 100 kW per event; A pilot program (San Jose area only) will target smaller customers by increasing the incentives and reducing the minimum load drop to 50 kW per event. (PUC-Ratepayers, CEC-GF)
Demand Bidding Program (DBP)	IOU Service Areas	Deploy Enabling Technologies	Lead		Technical Support		Suspended by DWR until 6/02; CPUC actively considering change in program administration	Participants must bid 10% of their average demand, but not less than 100 kW; participants voluntarily submit energy bids at various price tiers for designated four-hour time blocks of the next day. The price tiers range from 10 cents a kWh to 75 cents a kWh. (PUC-Ratepayers, CEC-GF)
Optional Binding Mandatory Curtailment (OBMC)	IOU Service Areas	Deploy Enabling Technologies	Lead				Tariffs extended through Dec. 2003.	Participants must be able to reduce load on an entire circuit by as much as 15% (in 5% increments). The program is activated only during Stage 3 alerts. A pilot program (PG&E territory only) will allow a variation on how load reductions will be measured. (PUC-Ratepayers, CEC-GF)
Scheduled Load Reduction Program (SLRP)	IOU Service Areas		Lead				Tariffs extended through Dec. 2003.	Participants are paid 10 cents per kWh for reduced load and must reduce their load by 15%, with a minimum load drop of 100 kW per time block. Program operates only during the summer during pre-scheduled time blocks. (Ratepayers)

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Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
Distributed Generation Incentives Program	IOU Service Areas		Lead				Ongoing	Provides financial incentives to install DG. Waives certain charges for renewable DG (Ratepayers.)
Commercial and Industrial Sector Continued								
Net Metering Program	IOU Service Areas		Lead				Ongoing and proposed	Establishes rate and safety rules for selling excess self-generated power back to grid. (Ratepayers)
Time of Use Rate Structure	IOU Service Areas		Lead				Ongoing	All >500 kW customers, and > 200 kW customers with GF-funded meters, must pay time differentiated rates. (Ratepayers)
Rolling Blackout Reduction Program (RBRP)	SDG&E Service Territory		Lead				Tariff extended through Dec. 2003.	Participants are paid 20 cents per kWh for reduced load and must have backup generation capable of providing 15% of the customer's annual maximum demand, but not less than 100 kW. Program is operated only during Stage 3 alerts. (SDG&E Ratepayers)

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Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
Government Sector								
LED Signals	Statewide	Lead					Fully Subscribed	Replace traffic signals with energy efficient lighting (GF)
Battery Backup for LED Intersections	Statewide	Lead					Available 4/15/02	Battery backup at key intersections with LED signals (GF)
Local Government, Hospitals and School Technical Assistance and Loans	Statewide	Lead		Possible financing			Ongoing for CEC CPA bond proposed Summer '02	Provide Energy Audits, New Construction Design Review and 3% interest loans (4% as of March 02, < $2 mil/project) to local gov't. non-profit hospitals & schools. CPA may float $50 million bond to leverage CEC's expected cash flow (ERPA, ECAA, LJA, possible CPA)
K-12 School Energy Education Program	Statewide					SCSA has lead	All grants awarded	Provide teachers and school districts with resources to improve the energy awareness of school children and their families. (GF)
Retrofit Existing Distributed Generation at Municipal Water Districts	Statewide	Lead					Rebates available through summer 02	Retrofit existing generation units to enable AQMD permitting for longer hours of operation. Municipal & permitted water/wastewater districts may apply. (GF)
Water & Wastewater Treatment Facilities Peak Demand Reduction Program	Statewide	Lead					Rebates available through summer 02	Provide tech. Assistance and rebates for water & wastewater treatment facilities for installation of efficient motors, pumps, energy management control systems, etc. for peak demand reduction (GF, ECAA)
State and University Programs	Statewide	Lead		CPA adding loans starting 2002			CEC funding fully Subscribed	Peak load Reduction planning, staff training and energy efficiency improvements at State Colleges and Universities, 176 state DGS Buildings and all Department of Corrections controlled facilities. (GF, CPA)
CPA Public Agency Loan Pool	Statewide	Technical Support	Considering utility bill repayment mechanism	Lead - Financing			Lending expected Q3 '02	Loans for larger projects > $2 million to tens of millions. Will include efficiency, distributed generation, solar. Initial loans $50 million +. Statewide pool reduces issue & admin costs. (CPA)

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Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
Government Sector Continued								
Public School Solar PV Program	Statewide	Technical Lead		Lead - Financing			Proposed Q3 '02	Fund expected to grow as settlements reached. Will be combo of grants and loans. (Attorney General created fund from contract settlements. CPA)
Distributed Generation Technology Public Procurement System	Statewide	Technical Support	Actively considering net metering, interconnection, departing load issues.	Lead		DGS - technical & admin support; CARB technical input.	Ongoing. Procurement Lists expected by Summer '02.	All public agencies across state can use bid and pricing lists. Increases efficiency of state & local purchase decisions on energy technologies. Eligible bidders announced for 2 of 3 technologies. Price competition next. (CPA)
DGS State Energy Projects	Statewide			Financing		DGS Lead	Proposed	These include microcogeneration and energy efficiency projects. CPA adding DG loans starting 2002 (GF, CPA)
Demand Responsive Building Systems	Statewide	Lead	Adopt Incentives and Programs	Optional Financing			Rebates available for small commercial. CPA loans start Q4 '02	Installation of demand responsiveness systems and meters (GF)
Innovative Peak Demand Reduction Program	Statewide	Lead					Rebates available through summer 02	Incentives to local governments to reduce demand. Projects include lighting retrofits (GF)
Cool Roofs	Hot areas of state	Lead		Optional Financing			Rebates available through 6/03. CPA loans start Q4 '02	Provide incentives to and other measures to lower air conditioning loads (GF, CPA)
School Energy Efficiency Measure and Behavioral Education	IOU Service Areas		Lead				Proposed for 2002 and 2003	Various local and IOU service area-wide programs by non-profits and other independent providers. (PGC)
CSU Lighting Program	IOU Service Areas		Lead				Proposed 2002 and 2003	Pilot Voltage Reduction Program (PGC)
Government Energy Efficiency	IOU Service Areas		Lead				Proposed 2002 and 2003	A number of local programs serving various city, county and regional government agencies. (PGC)

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Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
Government Sector Continued								
Distributed Generation Incentives Program	IOU Service Areas		Lead				Ongoing	Provides financial incentives to install DG. Waives certain charges for renewable DG (Ratepayers.)
Net Metering Program	IOU Service Areas		Lead				Ongoing and proposed	Establishes rate and safety rules for selling excess self-generated power back to grid. (Ratepayers)
Time of Use Rate Structure	IOU Service Areas		Lead				Ongoing	All >500 kW customers, and > 200 kW customers with GF-funded meters, must pay time differentiated rates. (Ratepayers)

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Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
Agriculture Sector								
Agriculture Loan Program/Technical Assistance	Statewide	Lead					Ongoing Project Management	For agriculture and food processing customers statewide. (PVEA)
Agriculture Peak Load Reduction Program	Statewide	Lead					Funds continue to be available for efficient equipment and pump testing and repair.	Incentives for efficient equipment installed after 1/1/01; Funding for pump testing and repair; Funding to retrofit gas to alternative fuels; Funding for dairy and central facility manure methane power projects. (GF)
Agricultural and Pumping Interruptible Program (AP-I)	SCE Service Territory	Deploy Enabling Technologies	Lead				Tariff extended through Dec. 2003.	Participants are agricultural customers with a demand of 50 kW or greater. Program is designed in a similar fashion to SCE's A/C program. (Ratepayers, GF)
Distributed Generation Incentives Program	IOU Service Areas		Lead				Ongoing	Provides financial incentives to install DG. Waives certain charges for renewable DG (Ratepayers.)
Net Metering Program	IOU Service Areas		Lead				Ongoing and proposed	Establishes rate and safety rules for selling excess self-generated power back to grid. (Ratepayers)
Time of Use Rate Structure	IOU Service Areas		Lead				Ongoing	All >500 kW agriculture customers, and > 200 kW customers with GF-funded meters, with 70% or more of their load dedicated to agricultural purposes, may take service at time differentiated rates. (Ratepayers)

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Program by Sector	Geographic Area Served	Role					Status	Comments
		CEC	CPUC	CPA	DWR	Other		Description & Eligibility (Funding)
All or Multiple Sectors								
Energy Efficiency and Renewable R&D	Statewide	Lead					Ongoing	Research new technologies to reduce peak and improve energy efficiency (PGC)
Public Awareness Initiatives	Statewide	Technical Support	Financial and Technical Support			Dept. of Consumer Affairs Lead	Ongoing through Summer 2002	State-wide media campaign and other public awareness initiatives (GF, PGC)
Education and Outreach	Statewide	Lead					Ongoing	Various presentations, videos, publications etc. to help all consumer classes. (ERPA)
Demand Reserves Sold into Wholesale Ancillary Services Market	Statewide	Technical support and deploy some enabling technologies		Lead	User of resource delivered Tech support and funding		Proposed	Provides up to 1000 MW of verifiable dispatchable "capacity" into the ISO markets to reduce DWR Ancillary service costs. Provides compensation mechanism for users of CEC DR Buildings Systems (CPA)
Measurement, Verification and Evaluation	Statewide						Ongoing	CEC, CPUC and CPA are responsible for evaluating their own programs. CEC participates in CPUC market assessment and evaluation planning process (ERPA, GF, PGC, CPA)
Demand Forecasting and Assessment	Statewide	Lead					Ongoing	Monitor loads and examine consumption and weather patterns to support analysis of temperature relationships, peak demand reduction, energy savings, supply adequacy, program cost effectiveness, and program impacts. Disseminate results. (ERPA, PGC)
20/20 for 2002	IOU Service Areas	Technical Support	Lead		Funding		Under Consideration	The Administration is considering whether to have a similar rebate program this summer.
Education and Outreach	IOU Service Areas		Lead				Ongoing	Various local and IOU service area-wide programs by IOUs and third parties. (PGC)
Municipal Utility District Program	Muni Service Areas	Lead				Muni's PGC	Ongoing through Summer 2002	To conduct programs analogous to the IOU administered programs (GF, PGC)

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Funding Sources Key:	
CPA	California Power Authority bond financing
DOE	U.S. Department of Energy Grants
ECAA	CEC's Energy Conservation Assistance Account
ERPA	CEC's Electricity Resource Procurement Account collected from all ratepayers
GF	General Fund -one time funding
LJA	CEC's Local Jurisdiction Account (PVEA)
PGC	PUC's and Muni's Public Goods Charge collected from ratepayers by utilities
PVEA	Petroleum Violation Escrow Account
Ratepayers	PUC directed funding collected from SCE, PG&E, SDG&E and SoCalGas (energy efficiency programs only) ratepayers

Appendix D

Efficiency Options Assessment



E. EFFICIENCY OPTIONS ASSESSMENT

1. INTRODUCTION

While energy supplies can be obtained in adequate quantities to meet needs projected in the previous sections, options exist to reduce the costs, environmental impacts, and security risks that projected use will entail."[12] This section outlines a range of resource efficiency options under four broad categories of local/regional decision-making. From this large set, a screening process is used to select a set of efficiency opportunities for detailed evaluation described in subsequent sections.

Table 12-8: Summary of Petroleum Combustion Emissions (average tons per day)

	Nox			ROG			Sox		
	1990	2000	2010	1990	2000	2010	1990	2000	2010
Gasoline									
Automobiles	319	172	104	430	237	121	16	12	12
Light/Med Trucks	143	117	105	142	87	51	7	7	7
Heavy Trucks	15	6	3	6	2	1	1	0	0
Motorcycles	2	2	3	7	7	9	0	0	0
Subtotal	479	297	215	585	333	182	24	19	19
Light Distillates									
Automobiles	6	1	1	1	0	0	1	0	0
Light/Med Trucks	1	0	0	1	0	0	0	0	0
Heavy Trucks	207	191	226	30	32	40	11	8	9
Transit Buses	10	10	11	2	2	2	0	0	0
Aviation	16	19	21	18	17	18	1	1	1
Commerce	39	41	42	1	2	2	31	31	32
Industry	18	20	21	1	1	1	5	5	5
Powerplants	6	1	6	0	0	1	2	2	9
Subtotal	303	284	328	55	54	63	51	47	56
Heavy Distillates									
Ships	34	37	37	1	1	1	34	36	37
Industry	0	0	0	0	0	0	0	0	0
Powerplants	0	0	0	0	0	0	0	0	0
Subtotal	34	37	37	1	1	1	34	36	37
Total Emissions	816	618	580	641	388	246	109	102	112

Source: Ship and aviation from SCAQMD, 1991 AQMP, Tech Report V-C. Commercial and industrial emissions from CEC spreadsheet models. Mobile source emissions from CEC energy use projections processed through CARB EMFAC/Burden models.

[12] Based upon its comprehensive biennial assessments of energy supply and demand, the CEC anticipates that the state will not face absolute or chronic shortages. The potential for short-term shortages of all fuels, due to physical emergencies (such as earthquakes) always remains. However, the State and local government have well-developed contingency planning process to mitigate impacts. Petroleum dependence in the transportation sector, however, does present significant price risks.

2. COMPREHENSIVE EFFICIENCY OPTIONS

Energy efficiency options span a variety of technical and policy measures. Rather than being exhaustive, this chapter illustrates an evaluation of the integrated consequences stemming from introduction of a comprehensive set of potential measures. The concept shows that measures generally considered to be derived from energy policy have consequences in a far broader set of forums. Again, recognition of the interconnections among segregated policy processes is a central goal of the chapter.

As noted previously, the energy efficiency options were considered under four broad categories, described below. While these categories are not mutually exclusive, they historically have been examined in different forums by different policy-makers, frequently in different agencies with focused or single purpose missions.

a. Buildings and Appliances

A large number of technical measures exist to improve the energy efficiency and the environmental consequences of using energy for buildings and appliances that serve human needs. California has been a pioneer in developing energy efficiency regulations, utility retrofit programs, and public assistance programs to improve the energy efficiency of buildings and appliances within the state. As a result, the state now consumes about 15 percent less electric energy per unit of economic activity than it did in 1975, when this effort began. Additional efficiencies are expected and are embodied within the long term baseline demand forecasts.

b. Land-Use

Land-use efficiency opportunities relate primarily to the development of land to support residential, commercial, and industrial growth. These opportunities occur in a wide range of scales, from development of new cities to individual development projects. Measures classified here may have considerable consequences for building energy demand, community infrastructure, and transportation. For example, higher-density attached housing generally is more energy efficient than detached single-family homes because of common sidewalls, which reduce the consumption of electricity and natural gas used for space conditioning. Also, by placing residents closer together, transit options become more feasible and transit use increases as routes can be closer to greater numbers of people. Guiding development to take advantage of existing transmission and distribution facilities and infill opportunities, providing opportunities for people to work near their residences in order to reduce commuting by automobiles, and incorporating other site design options have a variety of energy-demand and infrastructure consequences.

c. Movement of People, Material, and Information

Transportation options address four broad groups of measures: (1) increased efficiencies in the energy and infrastructure required to continue use of personal automobiles, (2) mode shifts to transit as a substitute for the personal car, (3) other transportation demand management options to reduce travel altogether, and (4) system management measures to improve capacity use.

d. Infrastructure

Infrastructure, as analyzed in this category, includes water supply, waste-water disposal, and solid waste disposal.[13] Efficiency options included in this category consist of water conservation, improved efficiency in pumping, and waste recycling programs that reduce the amount of waste in the disposal system.

[13] One measure crossing building design and infrastructure is the opportunity for grey water recycling. Successfully implemented by the City of Anaheim, this option is a good example of the need for integrated design and planning.

3. COMPREHENSIVE EFFICIENCY OPTIONS

a. Screening Options

Among the large numbers of potential energy efficiency options that could be assessed, a manageable number of key options were identified through a two-stage screening process. In Stage One of this process, a long list of options was constructed within each of the four categories, constrained only by judgments that potential energy, environmental, or infrastructure impacts could be significant when implemented. In Stage Two, a more intensive, semi-quantitative screening process was used that examined each option for nine criteria:

- Ability to quantify impacts
- Energy reduction potential
- Rate of energy reduction
- Cost effectiveness
- Environmental impacts
- Technical feasibility
- Enforceability
- Energy security impacts
- Equity impacts

The purpose of these criteria is to identify measures with larger impacts, or ones with greater net benefits, from multiple-decision perspectives. Throughout the process, the goals included ensuring that energy service needs were met as economically and efficiently as possible; thus absolute "conservation," i.e., "doing without," was not an intention. The ability to be enacted by regional or local government, or at least supported in state or federal forums, was examined later in the process.

During Stage One, the list was narrowed to 55 intermediate options. These 55 options were then subjected in Stage Two to an evaluation using the nine criteria listed above. The results are shown in Table 12-9.

Table 12 – 9: Intermediate Options

OPTION	Score	Relative Rank
Buildings and Appliances:		
Standards and Regulations		
Title 24 Enforcement	93	5
Supplemental Building Measures	103	1
Existing Building Energy Efficiency Ordinance	97	4
Solar Access Ordinance	83	11
Local Appliance Standard	93	5
Incentive Programs		
Collaborative Process Participation	85	10
Expedite Permits	83	11
Design Assistance		
Design Assistance for Government Buildings	89	8
Design Assistance for Private Buildings	93	5
Neighborhood Energy System	89	8
Public Information and Labeling		
Promote Efficient Behavior	103	1
Home Energy Rating System	99	3
SCAG Design Competition	83	11

OPTIONS CONT.	Score	Relative Rank
Land Use:		
Regional Scale		
Network of Compact Large Cities	87	8
Network of Compact Small Cities	87	8
Subregional Jobs/Housing Balance	75	10
Regional Urban Expansion Limit Lines	71	11
Regional-scale Telecommuting & Teleconferencing	87	8
City Scale		
Compact and Contiguous Development Pattern	83	9
Large Mixed-Use Centers	95	5
City-wide Jobs/Housing Balance	93	6
Sub-City Scale		
Mixed Residences & Work sites	103	1
Dispersed Shops & Services	101	2
Concentrated Shops & Services	103	1
Housing and Jobs Near Transit	93	6
Services Near Transit	97	4
Compact Housing	93	6
Energy Efficient Street Design	83	9
Project Scale		
Energy Efficient Landscaping and Site Design	91	7
Mixed Residences, Shops & Services, & Work sites	103	1
Reduce Auto Parking & Improve Pedestrian, Bike, and Transit Access	99	3
Movement of People, Material, and Information:		
Improvements in Vehicles or Fuels		
Vehicle Technology	104	3
Alternative Fuel Incentives	101	4
Reducing VMT		
Rideshare Programs	107	2
Transit (Bus/Rail)	93	6
Park & Ride/Shuttle Systems	90	7
Telecommuting	96	5
High Occupancy Vehicle (HOV) Bus Lanes	87	8
Parking/Congestion Pricing	90	7
Bicycle/Pedestrian Improvements	112	1
Infrastructure		
Water		
Reduce Consumption of Water	109	1
Use More Efficient Technology	89	8
Reduce Length of Lines	87	9
Waste Water		
Reduce Consumption of Water	101	5
Use More Efficient Technology	89	8
Reduce Length of Lines	87	9
Solid Waste		
Increased Composting	103	3
Zoning for Recycling	89	8
Improve Efficiency of the Recycling Process	105	2
Variable Rates for Garbage Collection		
Improve Efficiency of the Garbage and Collection Processing	103	4
Waste to Energy	97	6
Consumer Source Reduction	79	10
More Durable Consumer Products	91	7
Reuse of Commercial and Industrial Material	97	6
Reuse of Household Items	97	6

b. Selecting Efficiency Opportunities

In Stage Three of the screening process, five high-ranking options in Buildings and Appliances and four in Infrastructure, as described below, were selected for further analysis. All of the options in Movement of People, Material, and Information were selected for further analysis, although several were combined and refined. Many of the measures in Land Use were combined and incorporated with increased transit-this was done because of the close interconnection between land use and transportation, and because of the methodological difficulties and lack of data to measure the energy impacts, on a regional scale, of subtle local differences in land use. The options under Land Use and the Movement of People, Material, and Information were then combined into one category, Land-use and Mobility, to reflect this close interrelationship. The outcome of Stage 3 was the selection of 18 options for detailed analysis; these are summarized in the following sections.

Buildings and Appliances:

A. Supplemental Building Measures.[14] Implement building efficiency measures that supplement Title 24 and respond to the unique conditions of southern California. These measures could include HVAC duct testing, solar pool heating (where cost effective), day-lighting, and building commissioning (verifying that the HVAC and lighting systems in new buildings are operating properly).
B. Public Awareness Campaigns. Promote energy efficient behavior through public awareness campaigns. The types of behavior that would be promoted include using efficient lighting and refrigerators, maintaining residential HVAC systems, behavioral changes such as turning off lights when not needed, using solar water heating, and using energy efficient office equipment.[15]
C. Home Energy Rating System. Implement home energy rating systems and associated energy efficiency mortgage program. The rating system would involve a short inspection of the house, a computer-generated rating based on the inspection, and a set of recommendations for improving efficiency.
D. Existing Building (Retrofit) Ordinance. Address existing building stock through energy conservation ordinances that apply at the time a building is sold or leased. These ordinances could address such issues as ceiling insulation, pipe and duct insulation, water heater jackets, and low-flow devices.
E. Enhanced Title 24 Enforcement. Increase compliance with existing Title 24 building standards through training, incentives, and inspection programs.

Land Use and Mobility:

F. Vehicle Efficiency Standards. Adopt state standards, through the DRIVE+ process,[16] that call for increased vehicle efficiencies. These standards, which deal with fleet fuel efficiency, are already included in federal and state statutes. (As originally written, this measure emphasized specific penetrations of individual fuels. In fact, the market in concert with incentives and existing mandates will determine specific future alternative fuel penetrations.)
G. Alternative Fuels Incentives. Implement one or more of a wide range of incentives for using alternative fuels such as natural gas vehicles, oxygenated gasoline, flexible fuel vehicles, alternate fuel vehicles, and electric vehicles.
H. Increased Vehicle Occupancy. Implement ride sharing, park and ride, and high-occupancy vehicle (HOV) and bus lanes. The intent is to increase the average vehicle occupancy from the current level of about 1.2 persons per vehicle.

[14] Due to comments from the Southern California Building Industry Association, this measure has been revised to provide savings from voluntary efforts rather than standards.
[15] As identified later, public awareness campaigns are important across all sectors, particularly regarding techniques such as VMT reduction, transit use and recycling.
[16] Drive+ stands for Demand-based Reductions in Vehicle Emissions Plus Improvements in Fuel Economy; the program uses sales taxes as incentives or disincentives.

I. Telecommuting. Promote telecommuting programs that reduce the number of trips per day per employee, with potential net reductions in congestion and air emissions. These programs include measures to encourage people to work at local telecommuting centers or at home.
J. Pedestrian and Bicycle Emphasis. Provide pedestrian and bicycle facilities within a pattern of compact, mixed-use, transit-oriented development. The intent is to replace automobile trips that are five miles or less.
K. Transit and Land-Use Emphasis. Provide increased transit facilities within a pattern of compact, mixed-use, transit-oriented development. The transit modes include bus, light rail, commuter rail, and scheduled shuttle service. The more compact land-use patterns will also produce savings in embodied energy and energy used for operations of the buildings.
L. Congestion Pricing. Charge more for automobile travel that takes place at times of high congestion as a way of distributing travel over time and encouraging transit use. This is typically implemented through toll facilities on major commuter corridors, either during peak commute periods or 24 hours per day.
M. Parking Pricing. Charge more for parking in congested destinations as a way to reflect the true cost of providing parking.
N. Energy-Efficient Landscaping and Site Design. Encourage water-conserving landscaping, site buildings to take advantage of prevailing winds, and use landscaping for shading. This measure can also produce water savings.

Infrastructure:
O. Reduction of Water Consumption. Reduce water consumption to decrease the energy needed for water and waste-water pumping and treatment. In addition to reducing fresh water and its associated energy demand, this measure also reduces the amount of waste water that must be collected, pumped, and treated.
P. Increased Composting. Increase composting as a means to reduce energy needed to transport and process solid waste. This approach is very efficient because backyard composting requires virtually no energy.
This measure also reduces the need for landfill.
O. Improved Efficiency of the Recycling Process. Increase the efficiency of the processes used to collect and process recycled material. The improvements that could be made include co-collection of trash and recyclables, using energy-efficient vehicles, and using efficient routes.
R. Variable Rates for Garbage Collection. Implement a variable rate system that would encourage reductions in waste generation and encourage composting. The intent is to have a relatively low rate for a level of basic service with an escalating rate for additional garbage cans or bags.

F. EFFICIENCY OPTIONS ASSESSMENT

1. EVALUATION METHODOLOGY

The 18 opportunities identified through the screening process were evaluated for energy, air quality, and infrastructure impacts. To accomplish this, a significant effort was invested to develop quantitative descriptions of the efficiency opportunities. Additionally, estimates of penetration of measures were required along with quantification of consequent impacts upon specific economic sectors used in the baseline forecast. A series of forecasting and impact projection models developed at the CEC or adapted from the work of others were used to complete the latter task. The quantitative description of options is found in the Regional Energy Report. In fact, one primary objective in the energy analysis was to develop and describe analytic steps and modeling tools necessary for a thorough evaluation of efficiency options from an integrated perspective. Documentation of the analysis is provided in the appendix to the Regional Energy Report.

Results of the evaluation are presented for 2010 in Tables 12-10 through 12-12.[17] Overall agenda implementation could result in a savings in 2010 of over 7,000 GWh of electricity and 330 million therms of natural gas. These savings are equivalent to approximately 270,000 billion BTUs saved, with resulting Nox and ROG reduction totaling more than 17,000 and 13,000 tons per year, respectively. Additional water and waste disposal savings could occur by the year 2010 as indicated in Tables 12-11 and 12-12.

It is important to read the notes immediately following Table 12-10 to interpret the table accurately. Also, it is important to note that the results are illustrative-different outcomes would occur with changes in the modeling assumptions and characterization of measures.

Measure F. Vehicle Efficiency Standards, shows the highest energy savings and also provides the highest benefits in emissions improvements for NOx, SO_X, and ROG. (Over one-third of the NOx reductions from the opportunities evaluated occur due to this measure.)

Measure B. Public Awareness Campaigns, also achieves high energy savings, 47,000 BTUs. The reason is that it is actually a collection of a number of concepts under a common strategy, the measure potentially affects a percentage of all new and existing buildings, and the measure assumes some significant changes in human behavior.

Measure K. Transit and Land-Use indicates potential for major energy savings; this is a result of both a shift from automobiles to transit and an energy savings due to increased densities and efficient site designs. This measure will have an increasing relative impact after 2010 because changes in land-use patterns occur over longer periods of time than more direct energy measures.

[17] The Regional Energy Report provides detailed results for 2000 and 2005. These results show that some measures have greater near-term impacts and would appear to be more effective if rapid change was desirable.

Table 12-10: Energy Savings and Displaced Emissions: 2010

Measure		Electricity GWh	Natural Gas Million Therms	Transportation Fuel Consumption (Million Gallons of Gasoline Equivalents) Gasoline	Diesel	CNG	Methanol	BTU Billions	NOx Tons	SOx Tons	ROG Tons
A	Supplemental Building Measures	70	9					1,508	30	1	1
B	Public Awareness Campaigns	3,298	161					47,122	665	16	13
C	Home Energy Rating System	71	6					1,234	21	0	0
D	Existing Building Ordinance	743	29					9,857	129	3	3
E	Title 24 Enforcement	80	4					1,152	16	0	0
F	Vehicle Efficiency Standards	0		516		18	50	73,000	6,670	723	7,033
G	Alternate Fuels Incentives	(1,098)		857		(102)	(674)	(192)	899	(71)	(1,011)
H	Increase Vehicle Occupancy	0		135		8	35	22,250	2,183	223	2,096
I	Telecommuting	0		53		3	14	8,750	868	89	834
J	Pedestrian and Bicycle Emphasis	0		19		1	5	3,125	306	31	294
K	Transit and Land-Use Emphasis	933	128	125		8	32	42,227	1,905	179	1,921
L/M	Road & Parking Pricing	220		146		10	37	26,188	2,364	241	2,260
N	Landscaping and Site Design	380						3,570	19	1	0
O	Reduce Water	2,740						25,742	137	8	0
P	Increase Composting				6			895	479	20	85
Q	Improve Efficiency of Recycling				4			559	299	12	53
R	Variable Rates for Garbage Collection				3			447	239	10	42
	TOTALS	7,435	337	1,851	14	(54)	(501)	267,434	17,229	1,486	13,625

Note: To accurately interpret this table, see notes on the following page.

Notes to accompany Table 12-10:

1. The energy savings as expressed in the columns are for the year indicated in the title line of the table and assume that the implementation of the various measures begins in 1995.
2. CNG (compressed natural gas) and methanol are expressed in millions of equivalent gallons of gasoline.
3. Electricity is converted to BTUs using a relationship of 9,395 BTU per kWh to account for generation losses.
4. Natural gas is converted to BTUs using a relationship of 0.1 million BTU per therm.
5. Gasoline is converted to BTUs using a relationship of 125,000 BTU per gallon of gasoline.
6. Diesel is converted to BTUs using a relationship of 5.8 million BTU per barrel (42 gallons) of Diesel fuel.
7. CNG and methanol are converted to BTUs in the same manner as gasoline because they are expressed in equivalent gallons of gasoline.
8. The analysis of Measures F through M is interconnected:
   - Measure G assumes that Measure F is in place.
   - Measures H through M assume that Measures F and G have been implemented; the numbers in the columns for Measures H through M represent the savings after F and G are in place.
   - Measures L and M are the additional savings if pricing mechanisms are implemented along with Measures H through K.

Measure L/M, Road/Parking Pricing, and Measure H, Increased Vehicle Occupancy, rank high in energy savings and NOx reductions, each with over 20,000 BTUs and 2,000 ton reductions respectively. These can clearly be important components of a broad strategy designed to address mobile sector emissions and energy consumption.

In the infrastructure arena, the measure indicating greatest potential is Measure O, Reduction of Water Consumption, which, due to reduced pumping and treatment requirements, can save over 25 trillion BTUs. While all infrastructure measures reviewed have energy and air benefits, cost considerations and the potentially limited availability of new water supplies and land-disposal facilities add importance to these measures.

Table 12-11: Projected Reduction of Water Consumption (acre-feet)

	2000	2005	2010
Measure N			
Landscaping	13,043	15,989	18,157
Shading	(40,521)	(49,675)	(56,411)
Net Result	(27,478)	(3,686)	(38,253)
Measure O	461,186	599,163	737,100

Measure P, Increased Composting, reduces the need for additional landfill.[18] Measure R, Variable Rates for Garbage Collection, may result in a reduction of packing and other materials over the long term. Measures P, Q, and R together are assumed to divert significant amounts of solid waste as part of the AB 939 implementation *(see* Table 12-12).

Table 12-12: Projected Diversion of Solid Waste (tons)

	2000	2005	2010
Measure P	2,793,054	3,013,975	3,238,942
Measure Q	6,982,634	7,534,938	8,097,355
Measure R	1,396,527	1,506,988	1,619,471

[18] Unless available control measures are utilized, this measure can increase emissions.

Several measures also produce benefits that are not reflected in Table 12-10. Measure O, Reduction of Water Consumption, results in less water being used *(see* Table 12-11). The water-conserving landscaping component of Measure N reduces water consumption; however, this savings could be offset by the additional water required for shade trees, if this component of the measure is implemented.

In Summary

The results provided in Tables 12-10 through 12-12 illustrate the impacts of each measure, should it be implemented as described throughout the SCAG region. These impacts are not cumulative, since some interactions among measures have not been eliminated. Of course, the total impacts of all these illustrative measures could only be accomplished through concerted efforts by many jurisdictions-local, regional, state, and federal-working toward a common end.

The purpose of this chapter is not to advocate one measure over another. All 18 measures are worthy of at least an initial look to see if they are appropriate in a given circumstance. Discussion of implementation options for all 18 measures are included in the final section of this chapter.

Of particular importance in choosing implementation strategies is observation of those which have multiple benefits. Composting, for example, can reduce landfill and energy system requirements. At the same time, without proper emission control techniques, local air quality impacts could occur. DSM, if implemented successfully through local state or federal programs (for buildings or transportation) should achieve positive energy, air and congestion outcomes.

The highest-ranking measures should not be considered the winners to the detriment of other lower-ranking measures. The SCAG region is very large and diverse-what works in one area may not be appropriate in another. Also, the cost and ease of implementation may vary widely among the various measures and should be a major factor in selecting a package of strategies for the region, a subregion, or local government.

A combined energy and air emissions analysis reveals that the transportation measures achieve the largest air quality benefits. Higher fuel economy or shifts toward alternate fuels do not, however, contribute to the reduction or even mitigation of transportation congestion. This suggests that the most effective air quality measures may be low on the scale of mobility planning. Major shifts toward alternate energy forms for transportation also raise a series of fuel supply and distribution issues that require additional examination. Close coordination between these perspectives is needed to achieve a balanced solution to the region's problems.

What is most revealing are the powerful impacts of appealing successfully to energy consumers through public awareness campaigns. These measures can influence building energy conservation, occupancy of vehicles for commuting, or selection of transit or other VMT reducing efforts. The large benefits and the relatively low costs of the effort suggest this measure should be explored by all jurisdictions.

The RCPG process illustrates how difficult it is to analytically assess measures cutting across many jurisdictions, let alone achieve the impacts required through collective action. While many jurisdictions cannot individually pursue some of these measures, the presumption of regional implementation used for analytical purposes illustrates how important collective action can be as compared to individual action. Greater benefits can frequently be achieved, and probably at lower costs, to a group of jurisdictions working together on a common measure rather than through individual actions. Individual jurisdictions, however, can implement some of these measures in the area of their responsibility and achieve some portion of these impacts should they desire to do so. Implementation of individual measures in the agenda is discussed in detail in the Regional Energy Report and summarized in Section G of this chapter.

G. EFFICIENCY OPPORTUNITY AGENDA: IMPLEMENTATION

The implementation strategies for the 18 measures vary considerably because the measures themselves are so diverse. Some depend upon voluntary changes in public behavior, while others can be mandated by local governments. SCAG can play a major role in providing for an exchange of information among its members and developing joint programs with energy utilities, other public agencies, and private businesses. Detailed review of cost-effectiveness of specific programs and measures, beyond the scope of this study, is essential prior to implementation by individual jurisdictions.

1. INDIVIDUAL MEASURES

The following is a brief summary of implementation strategies:

Measure A--Supplemental Building Measures. This measure is designed to provide energy savings through implementation of measures supplemental to those required by existing state and federal standards. Examples of potential measures are HVAC duct testing, solar pool heating (if cost effective), day lighting, building orientation, passive solar application, commercial building climate control measure, and building commissioning. Savings can be achieved through a variety of mechanisms, including utility incentive programs proven cost effective to rate payers and the South Coast Air Quality Management District's measure allowing RECLAIM trading credits to be obtained from area source efficiency improvements. This measure could accompanied by the following: a technical assistance program; energy and water use evaluation requirements for large-scale developments; incentives for extra-efficient projects; and a monitoring and evaluation element to track the effectiveness of a variety of supplemental measures.

Measure B-Public Awareness Campaigns. As the Energy Commission's July 1993 *Energy Efficiency Report* makes clear, the single greatest impediment to a more energy-efficient energy-reducing society, from our high-rises to our highways, from our daily activities to our dreams for the future, is the public reluctance to make energy-wise decisions. Carefully coordinated public awareness campaigns could be implemented by energy utilities, local governments, regional agencies, and state agencies. Basic information is most efficiently developed at a state or regional level, with campaigns conducted at a more local level. Programs to educate and inform the public can be introduced and distributed through a number of channels, including schools, community centers and gathering places, cable television stations, newspapers, and direct mailings.

Measure C -Home Energy Rating System. The California Home Energy Efficiency Rating System (CHEERS), Inc. has been formed to promote the use of a uniform, statewide home energy rating system. CHEERS is a public-private partnership that includes lenders, real estate agents, HVAC and insulation contractors, utilities, public interest groups, and government. Energy utilities have been successful in implementing this type of program, and this approach could be continued. State and regional agencies, such as the CEC and SCAG, as well as local governments, could assist energy utilities by providing opportunities to help make people aware of the program and its benefits. As currently implemented, this measure goes hand-in-hand with mortgage lending programs.

Measure D-Existing Building (Retrofit) Ordinance. Implementation of existing building retrofit ordinances occurs primarily at the local level, and usually at the time a building is sold or leased. This measure would be implemented primarily by cities and counties with the adoption of an energy retrofit ordinance. Local control is important because a retrofit ordinance must reflect the fabric of a community and not lead to the destruction of historic and other significant buildings. Since retrofit ordinances would be adopted mostly by local governments, regional agencies could provide an important role as sources of information. Regional agencies could undertake a survey of local retrofit ordinances and could develop model ordinances for consideration by cities and counties. Supplementing such ordinances could be education and incentive programs; a mandatory audit ordinance; and special provisions for buildings in redevelopment areas.

Measure E-Enhanced Title 24 Enforcement. Enhance the enforcement of existing energy efficiency standards contained in Title 24 of the California Code of Regulations for residential and nonresidential buildings. This can be accomplished by encouraging local government building departments to require full enforcements of the standards prior to authorizing occupancy of any newly constructed building. Building departments can use existing programs to improve their enforcement knowledge and techniques. Such programs include on-going training opportunities, certified energy plan examiners, and "red tagging" inadequately installed measures. Additional implementation opportunities include provision of state incentives for high-cooperation builders and awards for successful local programs.

Measure F-Vehicle Efficiency Standards. This measure is implemented at the federal and state level in accordance with legislative mandates from laws such as the federal Clean Air Act and the California Clean Air Act. No action need be taken by SCAG, other regional agencies, or local governments at this time.

Measure G-Alternative Fuels Incentives. Implementing the development of alternative fuels-including electric, natural gas, and others-to reduce reliance on imported gasoline will be undertaken primarily at state and federal levels, in coordination with the oil and gas industries. Low emission vehicle standards have already been adopted by the state. Local governments can assist primarily by purchasing these vehicles as an example to their residents, as well as through hosting demonstrations and test-rides of the vehicles. Regional agencies and energy utilities can do the same, plus undertake public awareness campaigns to encourage use of low emission-vehicles. Utilities are presently seeking authorization from the CPUC to expand LEV programs, including incentives to purchasers. SCAQMD is relying upon natural gas vehicles and alternative fuels as part of its air quality attainment strategy, but emphasizes electric vehicles over others.

Measure H-Increased Vehicle Occupancy. All levels of government can contribute to the implementation of this measure. Local governments can encourage carpool and vanpool programs and adopt trip reduction ordinances. While many of the needed programs are in place, a local jurisdiction can enhance effectiveness by helping fund information and promotion campaigns, and construct preferential parking, among other items. Regional and state transportation agencies can provide for HOV lanes between communities. All levels of government can conduct public awareness campaigns to encourage increased vehicle occupancy.

Measure I-Telecommuting. Local governments can encourage telecommuting by adopting such programs for their employees, allowing or encouraging local telecommuting centers through their general plan and land-use regulations, and allowing or encouraging people to work at home through their home occupations ordinances. The viability of telecommuting, however, is largely beyond the control of local jurisdictions, although telecommuting centers can be programmed into future developments or retro-fitted into existing areas through zoning requirements. State and regional agencies can help implement telecommuting through information campaigns and by providing opportunities for their employees to telecommute. More specific implementation ideas include the.provision of credits to employers subject to telecommuting provisions of a trip reduction ordinance and the organization of forums and workshops for local employers to explain the benefits of telecommuting.

Measure J-Pedestrian and Bicycle Emphasis. This would be implemented primarily by cities and counties through their general plans, specific plans, design guidelines, and land-use ordinances. The local governments could require an integrated system of pedestrian and bicycle paths, bike storage facilities, and shower facilities. More compact land use patterns, especially involving mixed uses, would also assist in this measure. Although local governments assume primary power to implement this measure, regional agencies, especially those responsible for transportation and air quality, could encourage local governments to adopt programs which support bicycle ridership and pedestrianism. Regional agencies also could coordinate the efforts of cities and counties to assure a regional system. To assist in the implementation of the measure, the following strategies could be considered: appointment of a bicycle/pedestrian coordinator or advocate, amendment of subdivision ordinances to

require pathways and/or a system of paths, development and distribution of maps which clearly illustrate bicycle and pedestrian systems, and establishment of education programs.

Measure K-Transit and Land-Use Emphasis. This measure deals with the potential for energy savings from increased transit facilities within a pattern of compact, mixed use, transit-oriented development. This measure should be implemented by a range of public agencies. The transit system must start with a regional framework of linkages between major communities, residential centers, and employment centers. To be most effective, this must be accompanied by local government programs that encourage growth around transit stops and stations, provide easy access to the stops and stations, provide for convenience services at transit stations, and provide for local feeder bus service. Related implementation strategies include coordination with transit agencies to pursue joint development projects, including housing, adjacent to transit stations; provision of zoning incentives, including density bonuses; and adoption of specific plans around rail stations and transit centers.

Measure L-Congestion Pricing. This measure can best be implemented at the geographical level which is effective. Tolls will produce side effects that must be understood by all agencies in advance of their imposition. The tolls can be imposed by the state or by operators of private road or bridges. While limited opportunity exists for direct implementation of congestion pricing by local governments, agencies can work to facilitate implementation if desired.

Measure M-Parking Pricing. This measure could be implemented on' a regional or local level. The advantage of regional implementation is that the impacts upon business could be spread more evenly throughout the region. A local government could implement a parking pricing program to relieve congestion in certain areas or to encourage use of transit. The easiest method for local jurisdictions to implement parking pricing is to manipulate peak-hour rates at publicly-controlled parking facilities. Parking rates at private facilities are set based on competition: one indirect method of raising rates is to limit or otherwise control the number of private parking facilities in an employment area through zoning or design requirements. Finally, a city may choose to (a) lower parking requirements and set maximums for employers, allowing the value of the displaced parking to be used to subsidize transit, vanpools, or other modes, (b) seek a cooperative agreement with parking operators where rates are set artificially high and the excess profits used for transit, or (c) institute a tax on private parking facilities that can be used to subsidize alternative modes.

Measure N Energy-Efficient Landscaping and Site Design. This measure would encourage water-conserving landscaping, site buildings to take advantage of prevailing winds, and use landscaping for shading. Homeowners planting a new yard, businesses creating facility amenities, and cities with their street trees spend money on landscaping; the issue is to get them to use those funds to conserve energy. To that end, regional and local agencies and governments should develop guidelines or manuals for water- and energy-conserving landscaping in their communities. Additional implementation strategies related to this measure include a strong enforcement system, installation of efficient landscapes at government facilities, community-based awards program for energy-efficient landscaping and site design, and regular workshops and information sessions to educate the public about this measure.

Measure O--Reduction of Water Consumption. This measure aims at reducing water consumption to decrease the energy needed for water and waste-water pumping and treatment. It can be implemented by public awareness campaigns at all levels of government and by energy utilities. Basic information can be prepared at a state or regional level, energy utilities can disseminate information, and local governments can make information available. Local governments could work in collaboration with schools and other community-based centers to disseminate information as a way to implement this measure.

Measure P-Increased Composting. The basic structure to reduce solid waste is in place with the passage of AB 939. All levels of government can undertake public awareness campaigns on the ease and benefits of composting. As with other types of public awareness programs, the most efficient approach is to have material prepared at a state or regional level and' then have local

agencies customize it as necessary and disseminate it to local residents. Local agencies and governments can utilize a wide-range of channels to educate residents about composting. This outreach could include pamphlets, "How To" manuals, and live or televised demonstrations. Local entities can ensure that composing bins are available to local residents. Local governments should examine their general plan, zoning ordinance, and design guidelines to ensure that composting is not inadvertently discouraged.

Measure Q-Improved Efficiency of Recycling Process. This measure would be directly implemented by those entities, public or private, responsible for the collection of recycled materials. Regional agencies, such as SCAG, could assist in determining appropriate regional-level sites for collection and distribution centers, and processing facilities. Additionally, regional agencies could disseminate information to the public about recycling and ways to participate in the recycling process. Local governments would, at a minimum, need to be active partners in encouraging transfer stations and educating their residents about the program benefits.

Measure R-Variable Rates for Garbage Collection. This measure would be implemented by those entities that are responsible for setting garbage collection rates. Other entities could add support through providing information illustrating the benefits of variable rates. Most, if not all, local governments have control over garbage rates; therefore, they have the ability to adopt variable rates for their jurisdictions. Cities and counties should have policies in their general plans that call for variable rates in order to achieve land use and environmental goals. The variable rates would be adopted through whatever process is currently used to set rates.

2. FINANCING

Implementing energy efficiency projects is a challenge because they often require capital investments in order to realize energy and cost savings. Projects may be cost-effective, but unless a funding mechanism is available, they may not be implemented. In many cases, the financial resources and implementation strategies exist to improve energy efficiency and conservation in southern California. Since most of the 17 measures described will be effective only with public and business cooperation, and in many cases require little financial outlay by local governments, the guiding watchwords for the most productive funding options are "Education," "Partnership," and "Community Initiative."
A number of funding mechanisms for these 17 energy measures are available through federal, state, and local sources. These different financing options have been summarized in "'Energy Improvements Financing Alternatives Study" (KPMG Peat Marwick, December 1992), "San Diego Regional Energy Plan Financing Options" (Scripps Consulting Group, May 1993), and "Financing Strategies for Integrated Waste Management Programs" (Local Government Commission/League of California Cities/California State Association of Counties, May 1992). For the purposes of this discussion, these various options can be grouped into seven general categories:

- Internal financing, directly from the local government's general fund or special fund for capital projects
- General obligation and special revenue bonds
- Municipal lease-purchase programs, including:
  -Single-issue, private-placement lease-purchase agreements,
  -Certificates of Participation,
  -Master leases designed to finance multiple projects, and
  -Line-of-credit leases aimed at financing separate phases of projects;
- Pooled financing and utility partnerships, in which a number of entities are combined under one joint financial authority for economies of scale;
- Energy service companies;
- California Energy Commission loan and technical assistance programs; and
- Federal loans and grants;

- Mortgage programs allied with CHEERS - type programs.

Some of the funding options for energy measures are direct and obvious: loans, rebates, and technical assistance from organizations in the energy business - whether from the federal EPA and the state's Energy Commission or the local utility company and appliance manufacturers.

Other resources for local projects might come from funding for economic development and training-employment programs or from large partnerships between government, businesses, and community groups. Partnerships can also be formed that address separate but interconnected social issues that might be addressed simultaneously with the goal of saving energy. Local programs can be created and funded which blend resources from other "non-energy" avenues, such as economic development funds, business support, employment and educational grants, and community support. Sources of funding and illustrations of program partnerships are included in the analysis of funding for specific measures.

3. CONCLUDING OBSERVATIONS

Energy efficiency can best be achieved when viewed in conjunction with other public policies. Implementation of energy measures should be integrated with implementation programs for transportation, air quality, land use, and other subject areas that are designed to make communities healthier and more functional places to live.

The traditional planning practices within the energy, air quality, transportation, and land-use professions have been, and continue to be, very different. For example, the energy planning profession uses a planning paradigm that requires consumer demand for energy be satisfied. The energy planning process is designed to identify consumer demand and determine the least cost pattern of resource additions to match this demand. Energy planners use Demand-Side Management (DSM) programs to modify consumer demand for energy while meeting energy service requirements.

The air quality planning process is driven by the need to identify feasible control measures to demonstrate attainment of mandated ambient standards without being constrained by quantification of costs and benefits. Transportation has traditionally been facility-oriented, using demand models to determine where congestion could best be minimized through infrastructure additions. Land-use planners attempt to reconcile many economic, social, and environmental objectives; they believe that transportation and land-use planning should be examined simultaneously to produce an integrated approach to urban form, land uses, densities, and facilities.

These different planning paradigms, and emerging changes in planning processes resulting from recent mandates in law, need to be better reconciled in the future to allow effective evaluation of all resource efficiency options. Those with multiple benefits merit high priority evaluation.

SOUTHERN CALIFORNIA COMPASS



Compass
Southern California
Charting the course for a sustainable southland

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

GROWTH VISION REPORT

- JUNE, 2004 -

SCAG Growth Vision Interim Report
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A Growth Vision for Southern California

Southern California is a diverse region in a variety of ways – including in its physical, cultural and economic landscapes. The region boasts an enviable setting: a moderate climate with varied terrain that ranges from sandy beaches to rolling hills, to snow-capped mountains to captivating deserts. Its diverse cultural mix offers residents and visitors alike a haven for community, entertainment and enrichment. As the 12th most productive economy in the world and one of the largest concentrations of employment, income, business, industry and finance, Southern California offers the potential for prosperity to everyone.

Because of these, and many other reasons, millions of people continue to recognize Southern California as a very desirable place to live.

As the region continues to grow, it's important to move forward in preserving and enhancing the area's land, culture and economy.

The Southern California Association of Governments (SCAG) has taken the first steps in that stewardship. SCAG has embarked on a process that will create a vision of the future for the Southern California region. In an effort to maintain the region's prosperity, continue to expand its economy, house its residents affordably, and protect its environmental setting as a whole, SCAG has brought together the ideas, hopes and dreams of interdependent sub-regions, counties, cities, communities and neighborhoods.

This process is called Southern California Compass, and the result is a shared Growth Vision for Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. SCAG began Compass in 2002, spearheaded by the Growth Visioning Subcommittee, which consists of civic leaders from throughout the region. Creating a shared regional vision is an effective way to begin addressing issues, such as congestion and housing availability, which may threaten the region's livability.

By definition, a successful Growth Vision must be driven by a wide array of input from the public and from various stakeholder groups. Such a process involves gathering a broad range of participants and stakeholders to gradually sculpt a consensus vision for the region. This includes administering a region-wide citizen survey, developing and refining a series of principles to guide the vision and the process, crafting growth scenarios based on the principles and on detailed public input, evaluating each scenario based on objective benchmarks, developing a preferred growth scenario, and gaining acceptance and endorsement of the preferred growth vision.

In the short term, SCAG's growth visioning process has found common ground in a preferred vision for growth and has incorporated it into immediate housing allocation and transportation planning decisions. In the long term, the Growth Vision is a framework that will help local jurisdictions address growth management cooperatively and will help coordinate regional land use and transportation planning.



A Growth Vision is important to preserve the quality of life for future generations.

The Role of This Report

This Growth Vision Report presents the comprehensive Growth Vision for the six-county SCAG region as well as the achievements of the Compass process. It details the evolution of the draft vision, from the study of emerging growth trends to the effects of different growth patterns on transportation systems, land consumption and other factors.

This report begins with a general discussion of the challenges facing Southern California as it prepares to accommodate an estimated 6.3 million additional people by 2030. It studies historical trends in demographics, housing, jobs and other key aspects essential to understanding how the region will evolve and grow. Looking forward, the report explores how emerging trends and conditions will affect future growth in the region. It also discusses the challenges of continuously developing and refining the Growth Vision.

The Growth Vision report then turns to the public and to the stakeholders within each sub-region. This section emphasizes the close connection between the Growth Vision and the public input that shaped it. The results of a comprehensive regional survey and focus groups also are presented. A detailed discussion of the Compass regional visioning workshops follows, including the major themes gleaned from the public workshops held throughout the region. Descriptions and findings of the ensuing sub-regional review sessions and policy dialogues then summarize how the Compass public process continued to refine the elements of the Growth Vision.

In the next step, the report outlines the PILUT (Planning for Integrated Land Use and Transportation) test scenarios and the Growth Vision scenario. The PILUT scenarios, along with other regional development scenarios in SCAG's Regional Transportation Plan (RTP) process, present essential lessons and challenges for coordinating development and transportation in the final Growth Vision. The major themes and organizing principles of the Growth Vision are then presented. The section concludes with an analysis of the Growth Vision scenario and discusses the modeled impacts and effects the Growth Vision scenario is likely to have on Southern California.

The Growth Vision report concludes with a series of implementation steps – including tools for each guiding principle as well as overarching implementation strategies – that will guide Southern California toward its envisioned future.

It should be noted that this report concentrates on the physical aspects of regional growth – where people and jobs locate, the type and quantity of buildings that may be constructed, and how people and goods move in the region. To truly address all of the Growth Visioning principles, SCAG, sub-regions and cities should continue to refine the social, economic and other components that are also crucial to the Vision's success, including: workforce housing, job training and education, prosperity that reaches everyone, and protection of key open spaces.

A vision is not static but is constantly evolving. One goal of this report is that it will foster additional progress toward a vision of truly shared values – a vision that will evolve through well informed and wide debate about the direction the Southern California region should take as it embarks on a new era of challenges, growth and prosperity.

DEVELOPING A VISION

The Compass project develops a vision for the future of the region using the following components:

Public Participation– receive input from residents and community leaders through region-wide surveys, innovative workshops, and forums.

Scenarios – build and evaluate scenarios to understand future possibilities and the strategies that seem to work best in them.

Testing & Evaluation – apply innovative modeling techniques to evaluate each scenario on objective benchmarks of success.

The Growth Vision – describe an attainable vision of the future that is the best achievable based on the shared values of the region.

Strategies – outline the strategies that are key in attaining the vision, and build an implementation strategy around those main strategies.

Benchmarks – establish key benchmarks, and develop a monitoring system so progress can be measured and adjustments made.

The Need for a Regional Vision

The Southern California region is the second largest metropolis in the country and one of the most diverse. While it contains one of the world's most dynamic economies, it also "boasts" some dubious titles, such as the most congested region in the country. At times it is also the national leader for air pollution. In addition, the SCAG region is challenged by both a high growth rate and substantial physical constraints. Part of the reason the region is so appealing is the proximity of beaches and mountains, yet the Los Angeles Basin is also confined by these same geographical barriers. What is not already developed is often regarded as a precious and scarce open space resource. Examples include the agricultural lands of Ventura County, the foothills that surround the Coastal Plain, and the unique habitats areas in the High Desert.

Nevertheless, the region will grow and change during the next 30 years, facing daunting challenges due to its physical land constraints. Some of these challenges can be solved by community action – the people of this region acting together in their own enlightened self-interest. When a country or a state faces these kinds of challenges, there is a democratic government through which these solutions can be debated and implemented. But regions have no common forum or process for debating and implementing these types of issues; instead, they rely on a patchwork of local and regional governments. This approach can work when issues are fundamentally local in their impact and solution, or when a specific regional problem is addressed by an entity with the necessary skills and authority.

Increasingly, however, most regional challenges are complex, with causes and solutions intertwined across political authorities and jurisdictions. Cooperation and coordination on a much wider scale than has been practiced in the past is required to address this complexity.

The solution is for Southern Californians to debate solutions, propose ideas and cooperate on important initiatives at both regional and sub-regional scales. Compass was begun for this reason – to develop a vision for the future that embodies the shared values of the Southland and details the actions necessary to preserve the livability of this region.



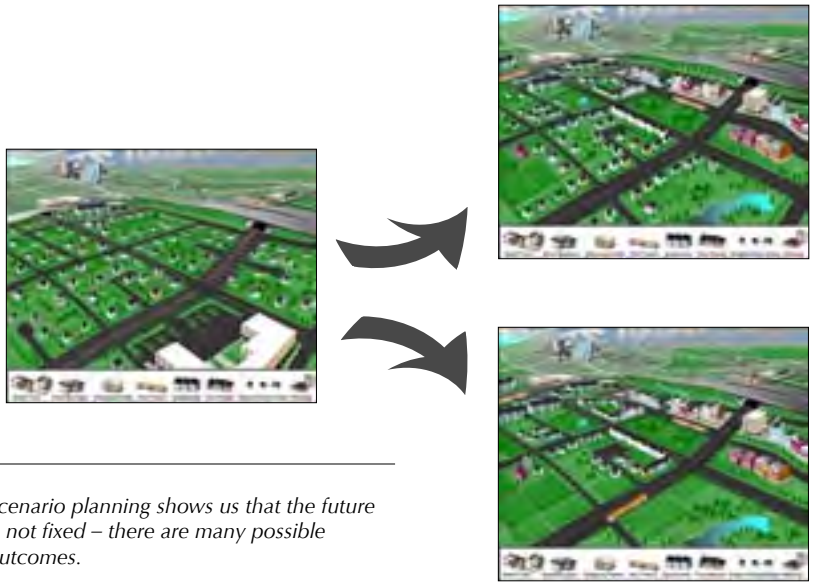
The SCAG region incorporates six diverse counties and covers 38,000 square miles.

The Purpose of A Regional Vision

The word vision conjures up some ethereal images – of saints and mystics but not practical people. However, the word also represents the ability of people to imagine a reality that is not apparent in the immediate present. It refers to explorers of distant lands and of inventors who can envision how their new machines will work. In fact, the presence of this kind of vision is essential for most creative and innovative work – if visions did not exist, nothing new or untried would ever be pursued, except by fortuitous accident.

A regional vision is a special kind of practical vision – it is a shared vision. This is when a future is defined and agreed upon by a group of people. This kind of vision led the original colonists to fight for the independent democracy that became the United States. Their vision was described by authors such as Thomas Paine in the Common Sense pamphlets and Thomas Jefferson in The Declaration of Independence. These documents pointed the way and set out key guiding principles. The future did not turn out precisely as envisioned, but the principles were used to adjust to new realities as they came to pass. The documents had the ability to inspire large numbers of people to work toward the same cause, to adhere to the same principles, and to express the purpose of their struggle.

The regional Growth Vision is an attempt to develop the same kind of vision – one that expresses the common interests of multiple stakeholders as well as the desired end point: a sustainable Southern California with a high quality of life for everyone.



Scenario planning shows us that the future is not fixed – there are many possible outcomes.

Scenario Planning: A New Approach

The way governments have converted visions into reality in the past has been through a fairly simple planning process. In part because city planning has its roots in architecture, landscape architecture, and engineering, the concept of laying out a plan for a city or town was an easy leap – if one can build a building or bridge, why not a town? This model often works well at the small scale, where there is a fair degree of control over key variables. However, regions, especially regions as large as Southern California, have millions of actors and countless variables that interact to produce the resulting metropolis. A better approach in this type of situation is to use a model called scenario planning.

Scenario planning is widely used in business and military settings. Given the complexity of issues faced in today's environment, the number of variables that have to be considered, and the 20 or 30-year time frame, it's apparent that getting the right prediction isn't really possible or even necessary. The better approach is to develop a method for outlining possible future scenarios.

Scenarios are really stories about what might be. They are not forecasts, and they are not predictions. They are possible futures that are based on what already exists, on trends that are evident, and on the values and preferences of a region and on decisions that might shape future outcomes. Scenarios are fed by input received from the combination of public workshops, surveys and stakeholder meetings. The essential requirement of any scenario is that it be plausible – within the realm of what exists and what is now known. Usually three or four scenarios are built as a way to compare outcomes and learn about the forces that are shaping the future. The point of this is to find out which strategies work in which scenarios. If a strategy works in any scenario, it's deemed robust – or a safe bet. If a strategy works in only one scenario, it is fragile and should be approached cautiously, with a good knowledge of the possible downsides.

The scenarios for the SCAG region were developed from several sources, but they are all feasible. The purpose of this growth visioning process is to find out how to achieve our shared regional vision with strategies that are as robust as possible.

Models

Models were used extensively in developing these scenarios. Models are representations of reality that are used to learn, teach and explore new possibilities. Architects build scale models of their projects to see how it might look before the real thing is built. A scale model of an airline cockpit, outfitted with a computer model of different flight scenarios, can be used to teach pilots how to fly.

For Compass, three sophisticated computer models were used in preparing and evaluating the scenarios.

The first is the SCAG forecasting model. This develops future demographic and economic projections based on national and international inputs and factors such as birth rates. It gives an internally consistent total for each scenario.

The second is a land use model, developed at a very fine level of detail for the 38,000- square-mile area of the SCAG region. This model not only maps existing conditions but also allocates future growth using various assumptions. The land use model keeps a running inventory of how land resources are used and where people live and work.



Modeling is more than processing numbers in an equation. It is an iterative process with many feedback loops and complex cause-and-effect relationships.

The third model is SCAG's transportation model, which is used to design future transportation systems and evaluate the consequences of these systems in terms of traffic congestion, pollution, time spent in traffic, trade-offs between cars and public transportation, and much more. The transportation model used by SCAG is one of the most progressive in the country – sensitive to the impacts land use changes have on transportation and capable of considering separately the effect freight movement has on congestion.

These models were used to evaluate the scenarios created for the SCAG region, allowing the use of objective measurements to understand the scenarios and determine which would be best for the region.

Growth Visioning Principles

The underlying goal of the growth visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity or income. To organize the strategies for improving the quality of life in the SCAG region, a series of principles was established by the Growth Vision Subcommittee. The four principles are intended to promote and maximize regional mobility, livability, prosperity and sustainability. Decisions regarding growth, transportation, land use and economic development should support and be guided by these principles. Specific policy and planning strategies also are provided as a way to achieve each of the principles.

PRINCIPLE #1

*Improve **mobility** for all residents*

- Encourage transportation investments and land use decisions that are mutually supportive
- Locate new housing near existing jobs and new jobs near existing housing
- Encourage transit-oriented development
- Promote a variety of travel choices



Providing transit options is a way to improve mobility for residents within the region.

PRINCIPLE #2

*Foster **livability** in all communities*



Walkable communities help improve livability and promote a mix of uses.

- Promote infill development and redevelopment to revitalize existing communities
- Promote developments that provide a mix of uses
- Promote "people-scaled," pedestrian-friendly communities
- Support the preservation of stable, single-family neighborhoods

PRINCIPLE #3

*Enable **prosperity** for all people*



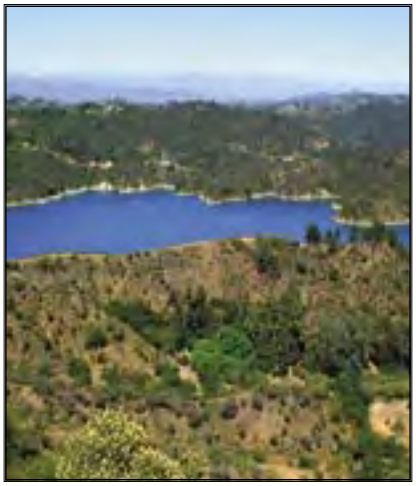
A variety of housing types enables prosperity for all people.

- Provide a variety of housing types in each community to meet the housing needs of all income levels
- Support educational opportunities that promote balanced growth
- Ensure environmental justice regardless of race, ethnicity or income class
- Support local and state fiscal policies that encourage balanced growth
- Encourage civic engagement

PRINCIPLE #4

*Promote **sustainability** for future generations*

- Preserve rural, agricultural, recreational and environmentally sensitive areas
- Focus development in urban centers and existing cities
- Develop strategies to accommodate growth that use resources efficiently, eliminate pollution, and significantly reduce waste
- Utilize "green" development techniques



Open space is integral to the health of communities.

Growth Visioning Subcommittee

SCAG's Growth Visioning Subcommittee consists of elected officials from around the region. It serves as the regional leadership body and is charged with leading the visioning process. The interaction between the regional leadership and SCAG's sub-regions form the foundation of the visioning process. Local jurisdictions and other local stakeholders provide input into the process at the sub-regional level. Regional stakeholders and the Compass Advisory Committee – which consists of participants from varied disciplines who generously donate their time and viewpoints – provide input into the process through the Growth Visioning Subcommittee. All results from surveys and focus groups are presented to the Subcommittee for review and feedback.

Regional Challenges

To develop a common vision for the future, it's important to understand the challenges facing the Southern California region. Because the past often provides an indication of what is to come, this section summarizes the recent trends of the Southern California region – those issues that historically have been a struggle for the region. Then the section looks forward to 2030 to paint a picture of the challenges the region will encounter in the coming decades. It is precisely these challenges that a successful regional vision must address.

California's biggest challenge is the extraordinary growth that it has experienced and will continue to experience. In recent years, Southern California has faced some of the most dramatic growth seen anywhere in the world for decades. The U.S. Census reports that between 1980 and 2000 the overall population in the region grew by 5 million people, from 11.5 million to 16.5 million. Projections indicate that 6.3 million more people will be added to the region between 2000 and 2030, bringing the total population to 22.9 million.

The dynamic interplay between immigration, out-migration, and natural increase (births minus deaths) accounts for the complexity of the population change. Immigrants – from around the world, but dominantly from Mexico, Central America and Asia – will continue to come to the region. But although immigration will continue to play a major role in the population change, the greatest portion of new growth is expected to come from natural increase – the children of people who are already here. At the same time, out-migration of various segments of the population will continue to rearrange the make-up of the region. The future will require planning and preparation for a more culturally diverse and varied population.

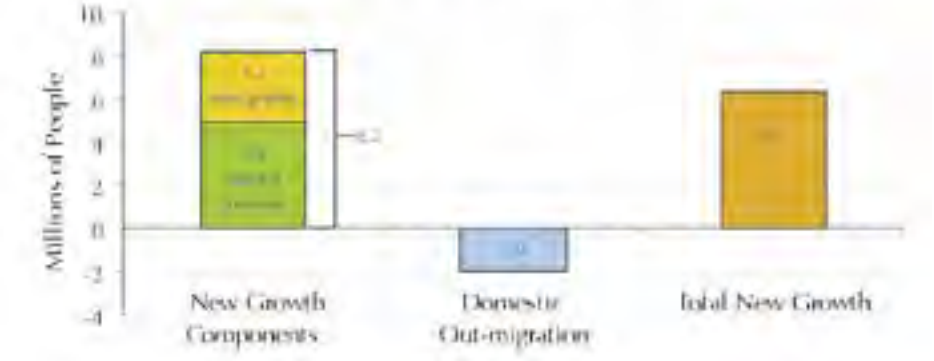
Looking Back

Demographics

The SCAG region has experienced dynamic population change in the last decade. Primarily due to the recession that struck the SCAG region from 1990-1993, 1.5 million people moved out of the region during the 1990s. Most of the population loss was in Los Angeles County. However, this loss was part of a bigger picture of turnover. During the same period, many people were born or moved into the region, resulting in a net population increase of nearly 1.9 million people. Most of the population increase was attributable to natural increase (more births than deaths in the existing population). A higher rate of births among the foreign-born population in the region is a contributing factor.

The population remains relatively young. The average age of the population in the SCAG region, between 1990 and 2000, increased at a slower rate than that of the state of California or the U.S. Overall, the region has a younger population than the state. The distribution, however, is varied. In San Bernardino County, the median age is 30, while in Ventura it is 34. All counties in the region have a younger median age than the nation; only Ventura has an older median age than the state. Compared to the nine largest metropolitan regions in the country, Southern California is the second youngest in terms of median age.

Components of Forecasted Population Growth in the SCAG Region, 2000-2030



From 1990 to 2000, the region's senior population (aged 65 years or over) increased slightly to 10 percent, which is below the national rate but slightly higher than that of the state. In 2000, a total of 1.7 million seniors were counted in the region, up by nearly 220,000 from 1990. Only Riverside County had a higher senior population than the rest of the nation in 2000, while San Bernardino County had the lowest number of seniors in the region.

The ethnic makeup of the population also changed significantly during the last decade. The region continues to be a magnet for immigrants. Between 1980 and 2000, the region's foreign-born population increased by 3 million, from 2.1 million to 5.1 million. In 2000, one out of every three Southern Californians (31 percent) was born in a foreign country. In this regard it is now comparable to other immigrant destinations such as New York; Vancouver, B.C.; and Toronto, Ontario.

The age and ethnic diversity of citizens in the SCAG region drives the demand for critical public services such as schools, job training, public transportation and senior housing. Consequently, the study of current and future trends in demographics is important to any long-range planning effort.

Percent Hispanic Population

1990



2000



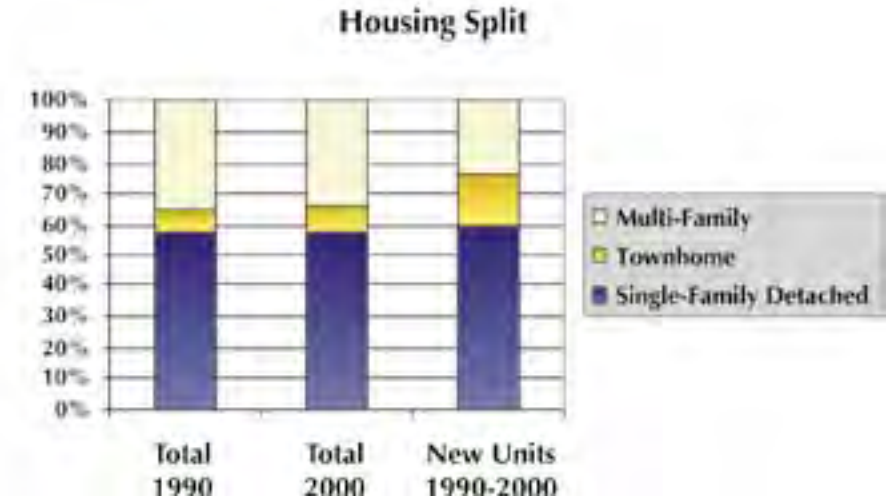
Red and dark purple represent a higher percent of Hispanic population in the census tract.

Housing

Recent trends and existing housing conditions point to an unmet demand for a greater diversity of housing throughout the six-county region. During the 1990s, the overall supply of housing did not match increasing demand in the SCAG region. Even as the population continued to grow, home construction lagged behind. The number of annual building permits decreased by 20 percent between 1990 and 2000. Further, those units built were out of sync with the demand for a broader array of housing choices from an increasingly diverse Southern California.

Single-family detached homes account for about 60 percent of housing in the region, according to the U.S. Census Bureau, mirroring the proportion of single-family units constructed during the last decade. And while multi-family units account for a significant proportion of the overall supply at about 40 percent, there were fewer multi-family building permits issued in 2000 than in 1990.

As a result, as populations in need of multi-family housing increase the demand for such housing is outpacing production. Immigrant populations and the 20-29 year-old and senior populations – those most likely to want multi-family housing – are increasing faster than the multi-family housing supply.

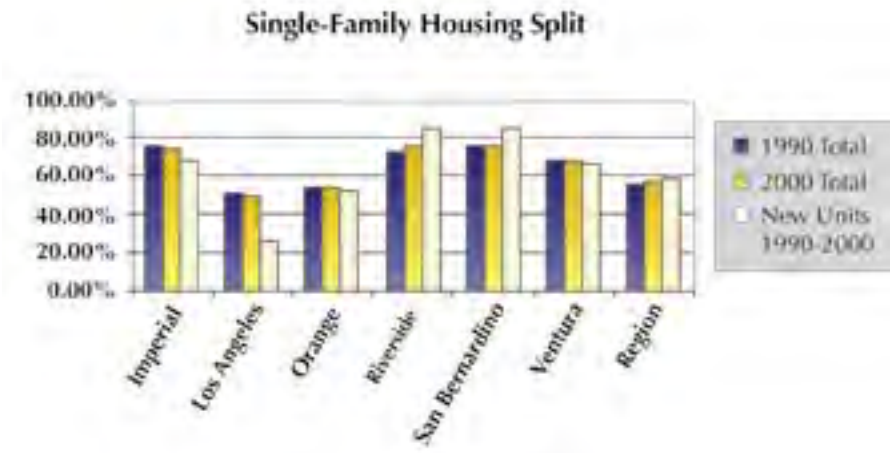


The cost of living has soared across the region, causing an affordability crisis for low-income households and increasingly for middle-income families wanting single-family homes. This is especially true in the coastal and jobs-rich areas of the region where vacancy rates are low, housing costs are high, and new housing typically consists of single-family homes for people in upper-income brackets. Earning the median household income no longer qualifies families for the median mortgage payment. Households earning the Area Median Income (AMI) in Los Angeles, Orange, and Ventura Counties, for example, spend more than 50 percent of their income on housing.

The increase in construction of townhomes also suggests that there are housing types that are becoming more in demand. While townhomes account for only 18 percent of the region's multi-family units, they accounted for more than 40 percent of the growth in multi-family housing built from 1990 and 2000.

Although Los Angeles County still retains the bulk of the region's housing (approximately 60 percent), Census data show that the new housing is being constructed in equal proportions across Los Angeles, Orange and Riverside Counties. Between 1990 and 2000, about 25 percent of housing in the region was built in each of these counties, with another 15 percent of the new housing in San Bernardino County. And while multi-family housing construction has increased in Los Angeles and Orange Counties in the last couple of years, it still has not kept up with population growth, a situation exacerbated by the slump in multi-family housing construction in the 1990s. At the same time, Riverside and San Bernardino Counties are building single-family homes in greater proportion (85 percent are single-family) than what currently exists (75 percent). This shift in population away from existing job centers can compound the lack of housing near jobs in the counties that already have the longest commutes in the region.

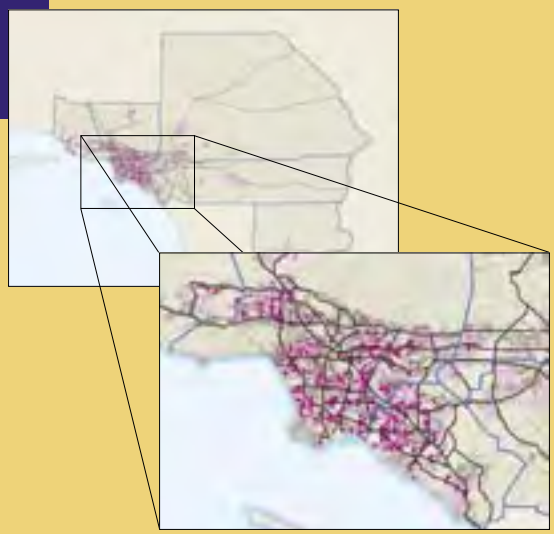
The gap in unmet demand for greater housing diversity will continue to grow without a regional long-term planning effort. In particular, the housing need for new employees entering the workforce and senior housing must be addressed if the region is going to sustain economically viable and healthy communities.





CURRENT TRENDS IN INFILL

When housing is built on land that is already developed, or on scattered small sites of undeveloped land, the process is called infill. The images to the right show where redevelopment and infill occurred in the 1990s. The fuchsia represents Census tracts in which all the development in the 1990s was through infill and redevelopment, while the lavender shows tracts in which some of the development in the 1990s occurred through infill and redevelopment. In the 1990s, 35 percent of the new housing developed in the region was built on already developed land. Most of the redevelopment occurred in the Los Angeles basin. This high redevelopment rate is a testament to the limited land supply and continuing strong demand for housing in the basin.



Jobs

The recession in the early 1990s hit the Southland hard. The employment growth rate in the SCAG region between 1990 and 2000 was only 8 percent, about half of the 16 percent job growth experienced in California, and well below the national rate of 20 percent. During the second half of the decade, however, the region's employment grew faster than the nation, at 14 percent. During the 1990s, certain counties fared better than others. The Inland Empire experienced an explosive growth rate of 37 percent, followed by Ventura and Orange Counties at 19 percent and 18 percent respectively. Los Angeles County had a net loss of 67,000 jobs during the 1990s.

In the 1980s the manufacturing sector accounted for nearly one-quarter of the jobs in the region, but during the past two decades manufacturing jobs have declined and now represent only 14 percent of the employment mix. Service sector jobs, on the other hand, have skyrocketed from 22 percent in 1980 to 31 percent. Jobs were also added in government, trade, transportation and public utilities, and construction and mining between 1990 and 2000.

Most of the manufacturing decline occurred in Los Angeles County and was defense or aerospace related. While Orange County also experienced a net loss of manufacturing jobs from 1990 to 2000, Riverside and San Bernardino gained about 39,000 manufacturing jobs.

Since a healthy economy is the driving force behind a healthy community, it's important to plan for an equitable dispersion of employment opportunities throughout the region. Job location affects public services such as transportation, education and housing, making a regional coordinated planning effort key.

Transportation

In the 1990s, the region experienced an infusion of transit infrastructure investment. Most notably, the Los Angeles County Metropolitan Transportation Authority (MTA) embarked on an ambitious process to improve existing systems, while also developing new light, heavy and commuter rail systems. The improved system has helped spawn development around major transit stations, contributing to increased ridership along the lines.



The Wilshire Boulevard rapid transit bus has improved service along this busy corridor.



The region still depends heavily on the freeways to move people and goods.

The MTA has also recently introduced "Metro Rapid" – a form of bus rapid transit – along two major transit corridors. Additionally, many municipalities in the region have upgraded bus service. Worth mentioning is the Santa Monica Big Blue Bus, one of the most successful transit systems in the country. In the year 1998-1999, according to the Center for Neighborhood Technology, the Big Blue Bus moved more than 20 million passengers.

Other transit agencies made big strides in the 1990s as well. Orange County Transportation Authority increased ridership by nearly 10 million trips between 1990 and 1999. In the seven-year period from 1992 to 1999, 100 percent more transit trips were taken on Foothill Transit, while ridership in Antelope Valley increased by more than 200 percent in the 1990s.



During the 1990s, transit use in Southern California increased more than vehicle miles traveled.



The Santa Monica Big Blue Bus moved over 20 million passengers from 1998-1999.

Across the Southern California region as a whole, transit use increased by 20 percent in 2000 – outpacing both the 13 percent growth in population and the 15 percent growth in the Vehicle Miles Traveled (VMT).

In 2000, total unlinked transit trips in the region increased by more than 40 million, or 7 percent since 1999. However, even in a time of increasingly improved transit access, the region is still encountering a number of transportation-related challenges.

The mode choice to work in the region remained essentially unchanged in the 1990s, contrary to the national trend. In 2000 the area had the highest share of workers that carpooled among the nine largest metropolitan regions and maintained a higher level of carpooling than the rest of the nation.

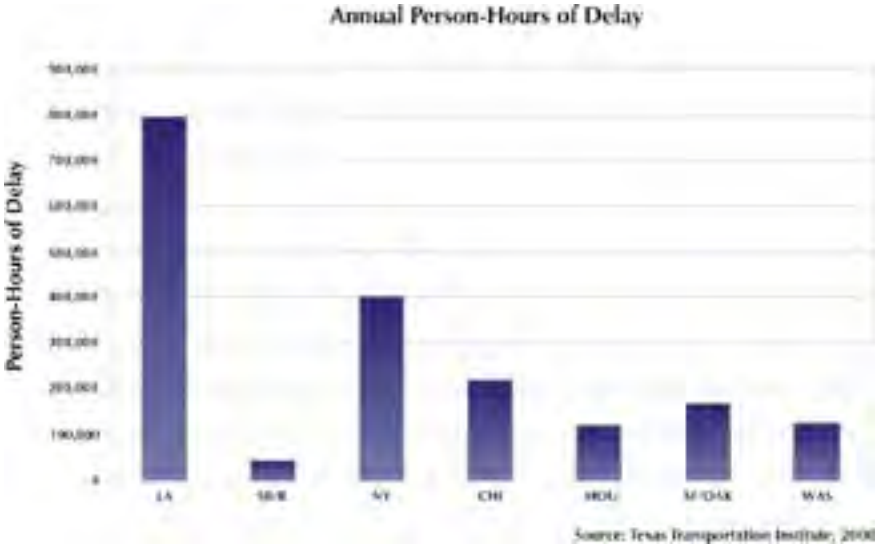
Despite the fact that in 2000 23 percent of commuters found alternatives to driving alone to work, congestion continues to be a problem in the Southern California region. In 2000, the Los Angeles metropolitan area (Los Angeles and Orange Counties) remained the most congested metropolitan area in the country in terms of hours of delay and congestion cost per person.

From 1980 to 2000, VMT nearly doubled. The good news, though, is that VMT growth has slowed down considerably. Whereas between 1980 and 1990 VMT increased three times faster than population growth, in the 1990s persistent congestion played a factor in slowing VMT growth to nearly the same rate as the region's population growth.

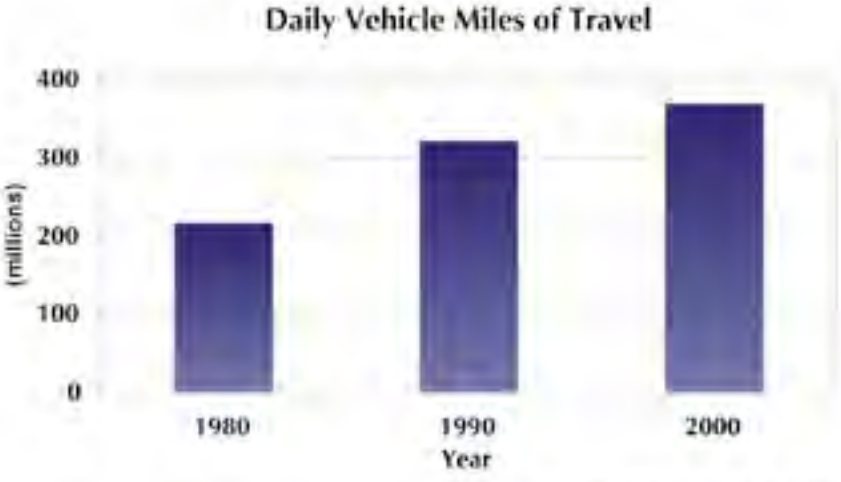
Between 1990 and 2000, the average time it took to commute to work increased in every county in the region. The region's average travel time to work increased from about 26 to 29 minutes and continued to be higher than the state and national averages but significantly lower than other large regions.

Transportation behavior is greatly affected by household, employment and service location. An aging population will change transportation mode choice, travel time and location. These changes affect future transportation decisions.





Source: Texas Transportation Institute, 2000



Source: SCAG State of the Region 2002

The dynamic interplay between past and current challenges will shape any vision for the Southland's future. A shared vision must anticipate the needs of a population that is simultaneously younger, older and more diverse.

Reduction in the wage-earning population will affect revenue for public services, yet more public services will be demanded. The growing senior population will require more housing options close to shopping and health care services, as well as alternatives to getting around by automobile.

In addition, the limited land supply in the basin will require new strategies for accommodating housing and employment.

The knowledge gained through observing these trends will enable the region to respond to these challenges and provide a range of options for accommodating the housing, transportation and employment changes that will help the region grow and prosper.

Looking Forward

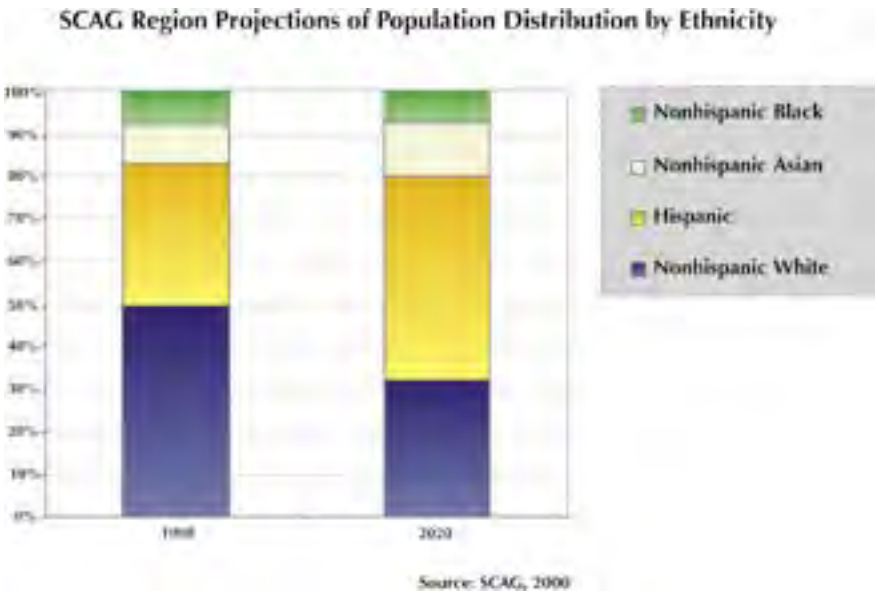
Changing Ethnicity

In the next several decades, recent trends will persist, and the Southland will continue to become more diverse. While all ethnicities and races will experience an increase in numbers, the most dramatic gains will be among the Hispanic and Asian populations. By 2030 there will no longer be one race or ethnicity in the majority; the region will be truly international.

These changing demographics will provide the driving force for much of how the region will evolve. New housing markets will be opened as families look for cost-effective housing near jobs. Many people in the region will place a greater value on living close to family members and on proximity and quality of schools. These preferences will encourage the creation of a wide variety of housing products aimed toward the different needs and wishes that occur throughout this diverse region.

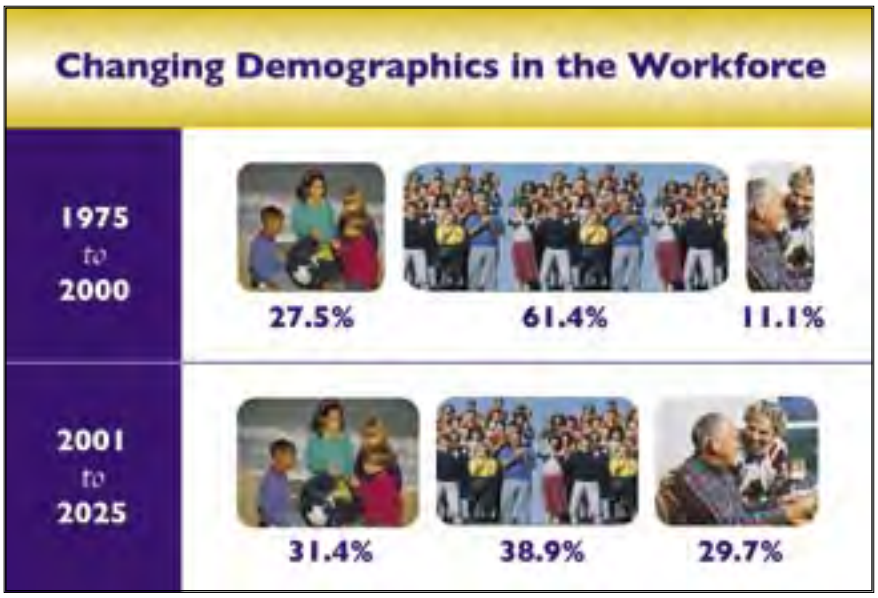
The increase in diversity also will fuel the natural progression of the "international city." With a broad range of customs, languages and international ties, Southern California will serve as the gateway for the majority of the country's commerce with Asia and Latin America. The ability to have a base in the prosperous and stable United States – but also tap into a workforce that is fluent in Spanish, Mandarin, Cantonese, Korean and other languages – will be a tremendous advantage in a global marketplace.

The future population will demand more entry-level and mid-priced housing. It will place a premium on location and good access to work opportunities, services and family. It will be important to place a high priority on locating new housing and job opportunities in areas that meet these criteria. Reinvesting in the region's corridors as mixed-use areas and opening up housing opportunities through infill and redevelopment will provide needed options in communities that are well served by transportation infrastructure and ripe with urban amenities.



Changing Workforce

One of the greatest scientific achievements in the last several decades is the dramatic increase in an individual's lifespan. Many news segments, however, have depicted some of the worrisome aspects of an aging population – namely a growing number of people who are cared for through programs such as Medicare and Social Security. The Southland faces another daunting challenge. As our population ages and leaves the workforce, there will be a delay in filling their jobs until enough younger people become of working age. Currently, roughly two-thirds of the population in Southern California is of working age – the demographic generating the tax revenue that pays for public services that everyone uses. During the next 25 years, it is expected that the number of people over age 55 will increase by six times, while the number of children will also increase modestly. These two factors will interact to produce a situation in which the non-working population will increase from a mere 11 percent today to nearly one-third of the population. In 25 years, it is projected that less than 40 percent of the population will be in the wage-earning workforce.



Southern California faces a shrinking workforce in the coming decades.

Change in Job Types

The region, as well as the nation, has seen a general decline in the manufacturing sector in recent years, resulting in the loss of a large number of living wage jobs. At the same time, the region is increasingly becoming dependent on the service sector. Service jobs are not as lucrative as union manufacturing jobs of past generations and often do not require a highly educated workforce. In many cases service jobs are located within communities whose home prices exclude service workers from living close to their workplaces. The shift to a service economy therefore intensifies the need for workforce housing close to jobs. To create prosperity for everyone and to diminish the impacts of long commutes, housing diversity and affordability will become increasingly important.

Land Supply

Since the SCAG region covers more than 38,000 square miles, few would imagine the area could be short of undeveloped land. But the region does in fact face a severe limit on the amount of undeveloped land suitable for development, which hinders its ability to accommodate new housing and jobs. The Coastal Basin of Los Angeles and Orange Counties, along with the San Fernando Valley, is home to 77 percent of the region's jobs and 71 percent of its population. Under current general plans, capacity on vacant land accommodates only 238,000 new households. That means that only 29 percent of the SCAG 2030 growth projection for this area could be accommodated through new development on vacant land.



Geography and the highly urbanized Coastal Basin constrain development opportunities.



Accommodating growth through infill housing is one way of dealing with the limited land supply in the Coastal Basin.

With limited undeveloped land, developed land will become increasingly important in accommodating growth. Infill, or new development in already developed areas, will be the method used to construct nearly half of the new housing region wide. In the city of Los Angeles, infill development could accommodate up to 80 percent of the projection for this area.

Another factor adding to the issue of a constrained land supply is the cost in time, money, and community building that is incurred by long commutes between the region's job centers and areas with plentiful land.

Provision Of Open Space

While some communities in the Southland provide an exceptional amount and quality of open space, other areas provide few opportunities for experiencing the outdoors. As the hillsides, once considered too steep for development, are now sprouting houses, there is a growing concern about natural areas that are not preserved by public or protective ownership. As the population grows, the pressure to develop environmental assets will only increase. Likewise, with a growing population there will be more demand to save these areas and to create more recreational opportunities. All the region's general plans address open space in some fashion. Additionally, several innovative and progressive projects are currently under way. Some of these programs, such as the Coachella Valley Habitat Conservation Plan, are taking place at the sub-regional level. Other notable efforts, such as the Ventura County SOAR initiative (Save Open Space and Agricultural Resources) and the Riverside County Integrated Project (RCIP), are being implemented through general plans at the county level. Too numerous to list are the varied efforts taking place among the many cities of the Southland.



These green hills of Ventura County are a natural feature worth preserving.

Congestion

Congestion will continue to pose a problem for the Southland. The increasing population in the region will cause vehicle miles of travel to rise. Without significant changes in the way land uses are integrated with transportation, congestion is predicted to worsen. If current trends continue, estimates are that congestion, in terms of regional daily vehicle hours of delay, will more than double from 1.6 million to 3.6 million in 2030. In Riverside County alone, vehicle hours of delay could more than triple.





In a survey conducted by Compass, residents rated congestion as one of their top concerns.

Pollution

Despite significant air quality improvements in the region in the last 30 years, the Southern California region is still, and will continue to be, challenged with air pollution. Maximum pollutant concentrations in the region still exceed the federal standards for ozone, carbon monoxide and particulate matter (PM10 and PM2.5) significantly. In the last several years the downward trend of pollution production has reversed. Despite improved emission standards for passenger automobiles, big trucks and sport utility vehicles, which are exempt from fuel efficiency standards, have increasingly become the vehicle of choice.

Daily vehicle miles of travel also are still very high, despite a slower rate of increase in recent years. Additionally, emissions from ships, locomotives, buses, trucks, other large vehicles, as well as many household chemical products, remain unregulated. Thus, the combination of increased emissions, the regional geography, and the hot climate encourages ideal conditions (temperature inversions) for increased pollutant buildup and reaction. As a result of these factors, the air quality in the region could continue to worsen unless measures are taken and policy is introduced to reduce pollution production.



Managing freight efficiently is a crucial part of maintaining a healthy Southern California economy.



Although technological advances have helped curb pollution in Southern California, it is still a big challenge for the region.

Freight Management

Freight operation in the Los Angeles region originated next to the Port of Los Angeles at Long Beach in the early 20th Century, when these ports were separate from other development in the region. Subsequent growth has surrounded the original industrial lands and is currently constraining the expansion of operations needed to keep pace with increases in freight volume. Truck access directly to the ports contributes to severe congestion on the freeway system and to poor air quality in the region. The Alameda Corridor was built to alleviate some of the problems associated with truck access to the port.

In addition to rail and truck freight, the Southern California region is experiencing astonishing increases in air freight volume. During the next 30 years, conservative projections indicate that this market of high value shipments will triple in volume, despite the dramatic growth anticipated in other freight sectors.

And because air freight shipments intended for the local market must be transferred to trucks for delivery, air freight relies upon the surface transportation network, in the same way that other types of freight do.



Even when air or rail networks are used for freight, trucks are still needed for collection and distribution.

Public Input & Involvement

The Compass process has defined a shared vision that can guide regional and local land use decisions, transportation improvements and housing development for the next 30 years. The Growth Vision creates a goal toward which objectives and implementation strategies can strive. Arriving at the goal consisted of an extensive public outreach and input process. The Growth Vision was formed and refined through public surveys, focus groups, public workshops, sub-regional review sessions and policy dialogues held throughout Southern California. This section summarizes the process and findings of each of these components of public involvement and discusses how the results are incorporated into the Growth Vision.

Survey Findings

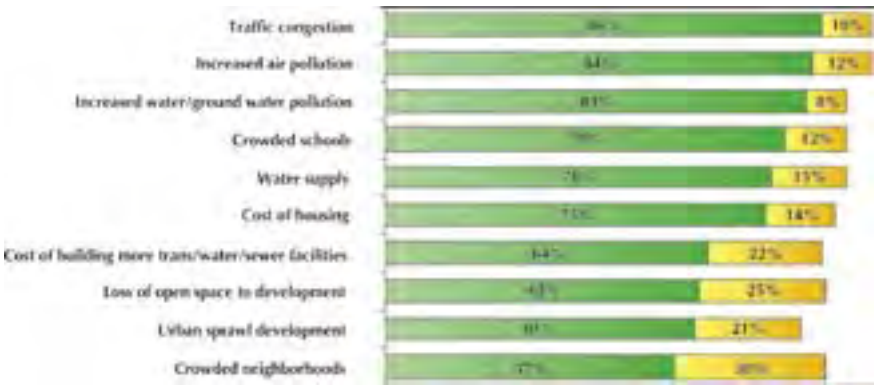
At the beginning of the Compass process, SCAG conducted a survey that asked Southern Californians them about the region's "biggest problems," perceived impacts of population growth, and transportation priorities.

Overall, the survey shows that while the results are diverse, Southern Californians hold collective concerns and hopes for growth in their region. The respondents want a balanced approach to managing growth. Respondents support allocating tax money to a variety of transportation improvements, from freeways to transit to bike paths. They were receptive to higher density development and redevelopment as long as it is coupled with preserving open space. And they believe that environmental protection must be balanced with economic growth. The summaries below provide a better understanding of why respondents are concerned with growth and their openness to solutions to growth-related challenges.

The Role of Planning

The survey results indicate that the respondents are very concerned that growth and its impacts will erode quality of life. In fact, 46 percent of respondents in the region agree that "my local government should try to slow growth down." When respondents prioritized their top four growth-related concerns, overcrowding of schools, at 46 percent, was of greatest concern. Traffic congestion was second, with 38 percent of respondents identifying it as their first or second most significant concern. Housing costs and increased air pollution were next on respondents' list of concerns.

Despite the concern about growth, wide support for planning solutions to growth exists throughout the region: 78 percent of the survey participants believe planning is necessary to maintain livability. The strongest support for planning exists among the most active voting population of citizens 55 and older. These survey results validate findings from previous focus groups. Balanced approaches to managing growth are also important. Respondents supported both transit and freeway expansion, allocating tax money to a variety of infrastructure (from freeways to bike paths), and they believe that environmental protection must balance economic growth. This search for balance and varied solutions means that any strategic policy or funding initiative is not likely to be widely supported if it focuses on just a single answer. Respondents also thought that it was both likely (78 percent) and desirable (61 percent) that Southern California will become more ethnically diverse.



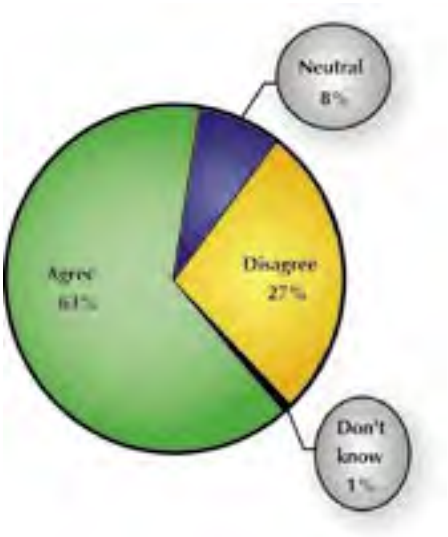
The green bars show the proportion of survey respondents who were Somewhat or Very Concerned with each topic.

Transportation

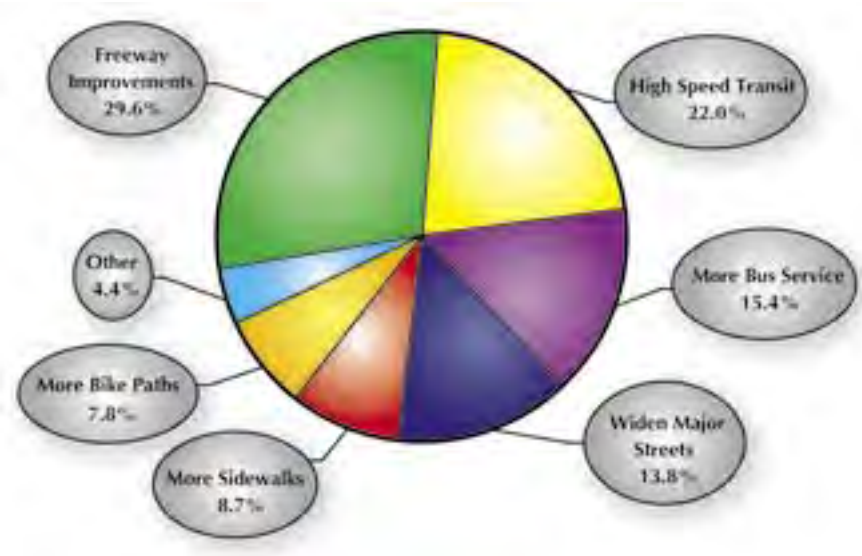
The survey, as well as web surveys and earlier focus groups, reflected a strong desire among residents for balanced approaches to managing transportation. The results indicated that citizens view freeways as an integral part of the region's future and dislike the current congested state of these roads. When asked how future tax money should be spent on the transportation system in the Southern California region, nearly 30 percent of respondents mentioned freeway improvements.

Yet more than two-thirds of the survey respondents believe transit is part of the solution to traffic congestion. Nearly 3 out of 5 found it desirable that transit trips would replace more and more automobile trips, and a large minority (34 percent) thought that it was likely as well. Survey respondents would allocate 37 percent of transportation funds to public transit (high-speed and bus) on average. They would allocate 30 percent to freeway improvements and 14 percent to surface streets. In total, respondents would allocate 54 percent of transportation funding to non-automobile modes of travel. These allocations hold true across all the counties in the region, with the exception of San Bernardino and Riverside, where residents allocated more funds to street-widening than bus service. Imperial County, despite its distance from the major employers of the Coastal Basin, gave highest priority to transit.

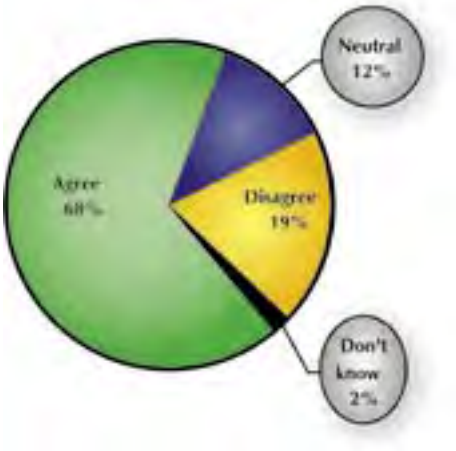
"We should widen congested freeways and build new ones."



Survey respondents' mean allocation of tax funds to transportation projects



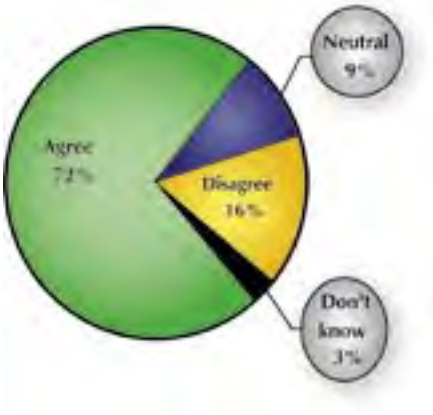
"Building more high quality, high speed transit is part of the solution to the traffic congestion problem."



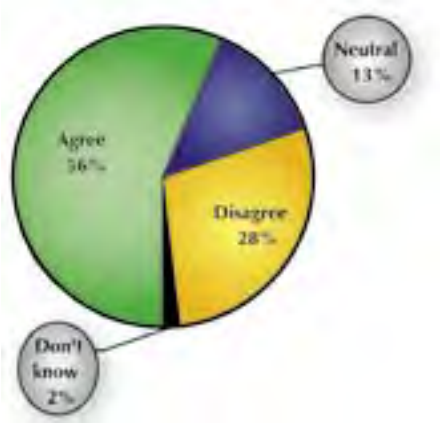
Land Use

Survey respondents showed a general concern for open space. More than 60 percent of respondents were somewhat or very concerned with urban sprawl and the loss of open space. And 56 percent of the respondents found it somewhat or very desirable that environmental protection will become more important than economic growth. Almost half (49 percent) of those surveyed believe this is likely to occur. The public was also receptive to the ideas of higher density development and redevelopment as long as they were combined with preserving open space. However, the same respondents were less amenable to higher density development or to new residents in their own neighborhoods. Overall, there was a general awareness of land use issues and little willingness "to not plan" or "to believe that somehow there is enough space to accommodate unfettered development." On the issue of infill, only 25 percent thought that growth will be concentrated in existing cities in the future, while 43 percent thought that this concentration would be positive.

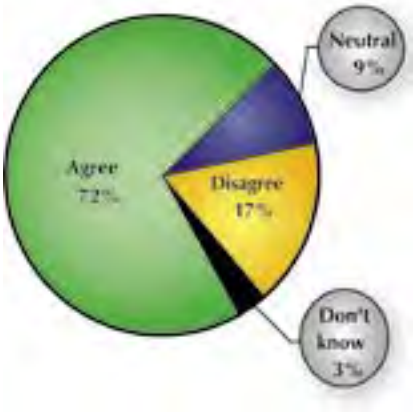
"New neighborhoods with higher density development are OK if they are carefully designed and provide open space."



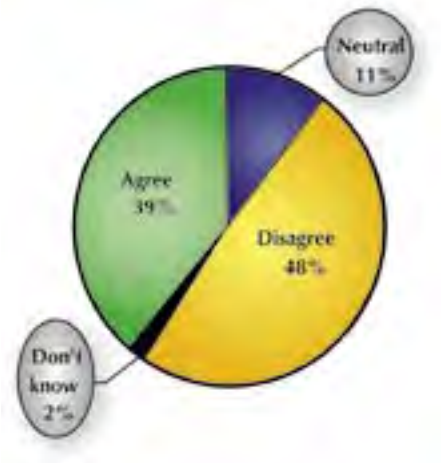
"Higher density development in my neighborhood is OK if it is carefully designed and provides open spaces."



"Areas of existing neighborhoods/business districts should be redeveloped instead of using up farm land or open space for development."



"I am willing to have more people live in my neighborhood so that less open space will have to be developed."



SOUTHERN CALIFORNIANS ARE MORE ALIKE THAN DIFFERENT

Southern Californians in different Counties showed that they are more alike than different. For example, between 84 and 90 percent of respondents in each of the Counties except Imperial were very or somewhat concerned with traffic congestion. Each County's survey respondents would allocate 18 - 24 percent of transportation funds to high-speed transit, while the proportion for freeway improvements was 28 - 36 percent. Their prioritization of transportation fund allocations was the same across all Counties, with one small exception in Riverside and San Bernardino Counties. Respondents from Los Angeles, Orange, and Ventura Counties put greater priority on bus service than on widening major streets, while residents in Riverside and San Bernardino Counties preferred the reverse. The overall distribution of funds fell into three categories in the following order of priority: (1) freeway and high-speed transit, (2) increased bus service and wider streets, and (3) more sidewalks and bike paths.

Respondents showed similarities toward general land use and planning issues as well. At least 70 percent of respondents in all Counties strongly or somewhat agreed that planning is necessary to keep the region livable. Nearly 80 percent agreed in five of the six Counties (70 percent agreed in Orange County). At least 70 percent of all Counties also agreed with the idea of higher density neighborhoods that are carefully designed and provide open space.

While it is often said that the sub-regions of Southern California are very different – and in many respects they are – this survey reveals that when it comes to picking strategies and investments, people across the region are remarkably consistent in their preferences. This similarity is a key asset to building a shared regional vision and to implementing positive long-range strategies.



Participants placed "chips" representing growth on this regional base map.

Workshops

The Compass workshops allowed Southern Californians to explore ideas about what the region will look like in the next 25 to 30 years. The workshops specifically asked the public how and where to accommodate the region's next 6 million people and 3 million jobs. Nearly 1,300 members of the public attended 13 Compass workshops. Using maps of the entire region, Southern Californians experienced firsthand the interdependence of regional land use, transportation, economics, and environmental issues across political boundaries.

The workshop participants came up with countless ideas, solutions, and plans, as well as more than 100 maps – each a unique vision of the future. While land use, transportation, and development issues are often approached at a local level, each Compass workshop map created solutions to these regional challenges. The workshop results support both the survey findings and the Growth Vision principles. They reflect the need for balance and planning, with consistent concern for environmental protection as well as economic growth, for multi-family and single-family housing types, and for mixed-use centers as well as single-use districts.



Workshop participants assess growth options.



Workshop Process

Compass used workshop maps of three different scales to gather the greatest diversity of citizen input. At the kickoff workshop Southern Californians from around the region worked on the entire six-county SCAG region. The majority of workshops were conducted at the sub-area scale – smaller than the entire region but incorporating multiple counties. Different sub-areas overlapped so participants had a choice of workshops. They were also formed based on commuting patterns, urbanized land and other geographic factors – not jurisdictional boundaries. Sub-area workshop participants were given the opportunity to work at the regional scale as well. The final two workshops allowed participants to work at an even finer level of detail in the South Bay/Gateway Cities and the Four Corners/Inland Empire Focus Areas. Also, as a result of public input the latter workshops allowed participants to select from a menu of transportation improvement options – allowing them to coordinate regional land use and transportation while considering the costs of transportation infrastructure.

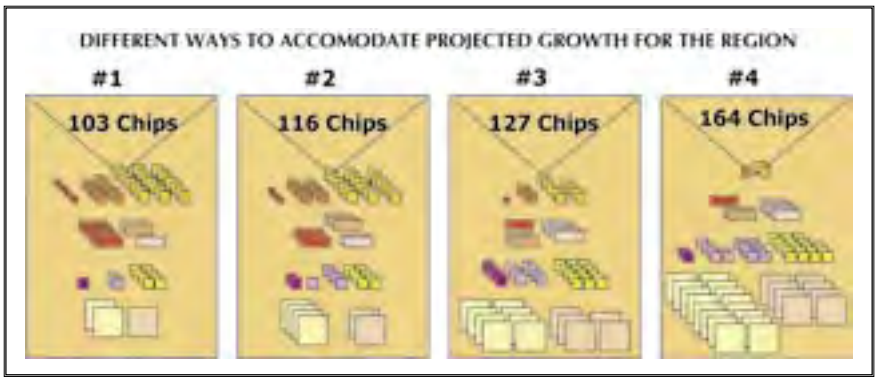
Workshop participants sat at tables of eight to 12 people with people from diverse backgrounds. The diversity of each table allowed the participants to experience alternative points of view. Environmentalists and developers, students and seniors, immigrants and California natives often sat at the same table. They frequently found that they agreed more often than they disagreed – despite their different backgrounds. Other times, they negotiated trade-offs and developed successful compromises.



So that participants could work on a more meaningful scale, the entire region was broken into seven overlapping subareas.

Each workshop group was given a base map that included existing land uses, existing and planned highways and transit lines, and environmental constraints (steep slopes, floodplains, and wetlands). The participants were also given regional transportation, topographical, and endangered habitat maps – vital information that showed a regional context and with more detail than feasible on a workshop base map.

Participants first identified areas where they felt growth should not occur. These areas included stream and trail corridors, environmentally sensitive areas, and other significant natural features they thought should be preserved. The participants were then challenged to accommodate the base map area's projected growth in housing and jobs using various combinations of development-type game pieces, or chips. The development types represent a range of ways in which jobs and housing could be accommodated. Each development type has a unique development pattern (from auto-oriented to pedestrian-friendly), number of households and jobs, density, and combination of retail, office, and residential space. They were modeled after communities and places in Southern California (See Appendix I: Workshop Development Types).



The workshop groups were given three to four "starter" sets of chips. Each chip set consisted of a different combination of 14 development types. The development types were either separate-use, auto-oriented or they were mixed-use, pedestrian-oriented. They also included different levels of redevelopment. By choosing a starter chip set, groups indicated the quality of development (auto-oriented vs. pedestrian-oriented) and the general quantity of redevelopment they wanted on their map.

To accommodate the same growth increment, a chip set consisting solely of low-density, auto-oriented chips would consume more land than a set consisting of mixed-use, pedestrian-friendly chips. The workshops allowed participants to grapple with these tradeoffs. Each workshop group had to reach consensus on tradeoffs of low-density versus compact growth, redevelopment versus greenfield development, and other important development issues facing the region. As the exercise progressed, groups were allowed to trade chips if their preferences changed. In order to accommodate the region's projected growth, however, the final number of households and jobs had to remain constant after trading.

In conjunction with land use decisions made by placing chips, workshop groups marked ideal improvements and additions to the regional transportation system. This task serves as one example of how the workshops responded to the demands of its participants. As more and more workshop groups were eager to plan transportation improvements and modes, the final workshops provided participants with various colors of tape to delineate planned transportation improvements. Since the transportation options were described in detail *(see Appendix I)*, participants could then coordinate development with appropriate transportation service and even calculate the costs of the transportation improvements.

At the end of each workshop, the groups had the opportunity to present their own visions and ideas about growth. This exchange proved valuable, informative and enjoyable for the participants.



A woman presents the results of her group's work to the rest of the workshop participants.

Workshop Results

The workshop maps were compiled into a Geographic Information System (GIS) database that identified and analyzed the location, type and number of chips placed on each workshop map. Composite maps also were made of the transportation networks and open space corridors envisioned by each workshop group. The composite maps then formed the basis of the draft Growth Vision scenario – an alternative for future regional growth shaped by the visions and wishes of Southern California residents. The following summaries outline the common land use and transportation characteristics among workshop maps, as well as key differences between the various workshops.

Land Use

Whether or not the criticism of Southern California as an area of sprawl is true, there is a limited amount of easily developable land left in the region. That means there will be little opportunity to sprawl in the future. With this truth in mind, most of the workshop groups opted for higher degrees of infill development.

The workshop participants showed a strong preference for development in mixed-use centers and corridors. A surprising majority of workshop participants chose the most intense, mixed-use starter chip set (Chip Set 1). Chip Set 4 often approximated development trends from the 1990s or was slightly more compact. In most sub-areas, this chip set consumed all remaining undeveloped land. Of all the sub-area workshop groups, not one chose Chip Set 4.



The vast majority chose either Chip Set 1 or 2, both of which contained a majority of mixed-use, pedestrian-oriented development types. Through their chip selection, workshop participants indicated that they do not prefer one style of development over another. Instead, they seek choices and a wider array of options in building their future.

In nearly every workshop, participants demonstrated the importance of the region's transportation corridors. Through the placement of high intensity land uses and improved transit and auto service, participants assured a place in any scenario for these important corridors.

Conservation of existing parks and mountains was a high priority for many workshop groups. These groups sought to enhance networks of green corridors through mountain ranges and along rivers, particularly the Los Angeles and San Gabriel rivers, and worked to incorporate wildlife habitat corridors in their plans.

Tranportation

Consistent with the surveys, the workshops illustrate that transportation networks are indeed on the public' mind. Workshop groups often complained of congested freeways and routes, but they also proposed many solutions to the problem. While many participants advocated expanded capacity or new alignments, the majority used land use decisions and alternative means of transportation in addition to the more conventional manners of addressing congestion. This again illustrates that people want a wider range of options in their quest to achieve better mobility.

Workshop maps and comments also called for better access to transit and more comprehensive transit systems that approximate commute flows rather than remaining within political boundaries – most often with connections between Orange and Los Angeles Counties. Even residents who do not use transit supported upgrading transit networks. Many called for greater access to local bus routes for students and seniors.



Compilation map representing the sum of all land set aside for conservation by the more than 100 workshop groups.

Workshop Variation

The development types that participants typically chose to accommodate growth were heavily influenced by where they lived. For example, participants in the Downey workshop were much more likely to emphasize corridor reinvestment and intense, mixed-use centers than were participants in Palmdale, or even in built-out areas such as Garden Grove and the San Fernando Valley.

While many of the workshop groups opted for redevelopment over greenfield development, the workshop exercise exposed the difficulty of redevelopment in accommodating projected growth in nearly built-out areas such as the Los Angeles Basin and San Fernando Valley. While a strong desire to reinvest in the historic downtowns of San Bernardino and Orange Counties remained, interest in redevelopment was generally low in these counties compared to Los Angeles County. The High Desert cities incorporated more single-use development and fewer mixed-use centers than most other parts of the region. However, workshop participants continued to locate mixed-use development in High Desert city and town centers.



Residents in the Coachella Valley, the High Desert and other, more remote communities created more roads than other places. This is most likely due to the available land, recent growth, and the prevalence of automobile travel in these areas. While new roads mean more travel options, they also hamper conservation measures envisioned by many participants. Imperial County generally prioritized transportation connections to San Diego over connections to Riverside or Orange Counties.

The workshop participants encountered challenges in thinking regionally. Many were concerned with the effect of a regional scheme on other cities or neighborhoods on their maps. Similarly, others focused growth and improvements in areas they knew best – their own cities or neighborhoods – and did not attempt to change other areas. This stands in contrast to experience in other similar exercises where locals shun the idea of growth in their own neighborhoods and place disproportionate amounts of development in other communities.

Web-based Outreach

Compass also has used the world-wide web extensively to maximize outreach to Southern Californians. The award-winning Compass website offers a range of valuable resources, including news articles and reports related to regional planning and growth. It also offered several ways to get involved in the Compass process. Since not everyone could attend a workshop, web-based access to workshop information was made available. A web-based survey also was conducted so that people could respond to the issues of regional growth at a convenient time and place for them. The web survey was consistent with the phone survey. The Southern California Compass website was the recipient of an American Planning Association award of excellence.

Coordinating Land Use With the Regional Transportion Plan

As a metropolitan planning organization, SCAG is required by federal law to create a Regional Transportation Plan (RTP) that determines the needs of the transportation system and prioritizes proposed transportation projects. The RTP is also necessary to obtain and allocate federal funding for regional transportation projects. The RTP must be updated every three years to ensure that the plan adequately addresses future travel needs and is consistent with the federal Clean Air Act. While the Compass workshops were taking place, SCAG staff was working to update the 2004 RTP.

In keeping with the philosophy of scenario planning, a research project was undertaken in partnership with the SCAG RTP team to examine the effects of land use on regional transportation performance. Various regional development scenarios – alternative snapshots of land use 30 years into the future – were created to measure the various impacts of land use on congestion, vehicle trips, transit use and air pollution. The research was undertaken with the understanding that the scenario analysis would inform both the RTP and the Growth Vision. Incorporating land use into a regional transportation model is nothing short of a paradigm shift in the way regions plan transportation. The outcome of this scenario analysis will have tremendous implications for future RTP cycles in Southern California and regions nationwide.

To study the effect of alternative land use designs on regional transportation performance, multiple regional development scenarios were created through SCAG's Planning for Integrated Land Use and Transportation (PILUT). Two "bookend" PILUT land-use scenarios were developed to compare variations on regional trend scenarios and the draft Growth Vision scenario. One bookend, PILUT 1, focused on infill development in existing cities while the PILUT 2 distributed growth over a broader area in newer cities. Comparing these two extremes to the Trend Scenario provided valuable lessons for the Growth Vision principles and the Growth Vision scenario. Below is a summary of the PILUT scenario analysis process and its findings.

PILUT Scenario Analysis

How the Scenarios Were Modeled

A detailed land use model can help create scenarios that more fully test the integration of land use and transportation than regional transportation models can alone. Through the use of robust computer planning tools, development types were combined to create the two PILUT scenarios. These scenarios were designed to test two possible future outcomes. The PILUT scenarios were engineered not as draft visions but as studies that could help create a draft vision. Measures of the effects of the PILUT scenarios were then compared to the same measures of various baseline or trend-based scenarios.

Both the PILUT 1 and 2 scenarios consist of the same population as the total projected by SCAG for the trend scenarios and approximately the same distribution among the counties. In defining the scenarios, SCAG provided a mix of housing and jobs for each of the seven modeling zones within the region. This allocation was broken down to include population, households and three categories of employment.

The PILUT methodology incorporated many datasets from a variety of sources. The primary reference layers were from SCAG (regional land use 1993), satellite data (1992 and 2001), and Census data (1990 and 2000). Additional data included general plans for each of the counties, environmental layers, and derived layers from a digital elevation model. These layers were combined to create a database that could be queried to provide the most accurate land use information available.

The overall strategy in developing the map layers was to identify developed, environmentally constrained, and committed (publicly owned or tax exempt) land. The model assumes that publicly owned land is not available for either development or redevelopment, and removes it from developed and vacant inventories. Environmentally constrained land was also removed from the vacant land inventories in order to leave it in its natural state as much as possible. The resulting inventories of vacant and developed land are assessed for suitability for development and redevelopment, taking into account the land's proposed density and connection to infrastructure.

In addition to the detailed land use models that are used to both establish scenarios and monitor crucial themes (such as types of jobs and housing and the amount of vacant land versus infill development), SCAG maintains transportation models that use these scenarios as inputs. These models are capable of measuring the changes in land use, and in conjunction with current and planned infrastructure, of determining how the region's travel will be affected by the future growth.

The Trend Projection

As part of the RTP update, SCAG performed a detailed analysis of the region's existing conditions. This inventory counted the location and variety of the region's jobs, households and people. The modelers at SCAG then integrated this inventory with the transportation system and behavioral patterns to understand impacts on travel. Finally, the modelers developed a series of alternative land use scenarios.

One scenario, known as the Baseline alternative, represents what is likely to happen given the continuation of existing trends. Scenario planning relies on the idea of a Baseline alternative because it serves as a point of comparison for other alternatives. The Baseline is a prediction of where the future jobs and people will locate within the region if policies remain the same. It represents the continuation of current development trends, with adjustments made based on local input. The Baseline scenario for the Compass project is known as the 2030 No Project scenario. In the RTP process, several trend-based scenarios were created.

The Trend Projection

The process used to create the PILUT scenarios is very similar to the process participants in the workshops used to create their plans for the region's future. The scenarios were built by placing development types, representing a mix of land uses, throughout the region. The 17 development types (See Appendix II: Scenario Allocation Development Types.) used to create the scenarios are more detailed and refined than the ones used in the workshops, but they are similar in that they are based on places experienced by residents and workers alike.

The components of the development types are "building types," which were established based on real world examples found within the Southland. The building types represent a wealth of data – from jobs and housing types to the mix of land uses to building height and parking requirements – applied at the smallest level of geography available (about five acres). Each development type represents a unique grouping of building types.

At their most basic level, development types represent households and employees for a given amount of land. In addition to this simple representation of density, information can be associated with these development types indicating many factors, such as the amount of impervious surface, percentage of rental units, single-family and multi-family mix, infrastructure costs, and other derived assumptions. Scenarios were populated using development types, allowing for direct comparisons between them via evaluation criteria such as land consumption, comparative infrastructure costs, and housing and job profiles.

The scenarios themselves also are host to a wealth of data that can be used for further modeling or analysis. The following is a description of the two PILUT scenarios and the results of the scenario analysis.

Developed Land



Vacant Land



Environmental Constraints



In order to develop a land use model, developed and vacant land must be identified and environmental constraints removed.

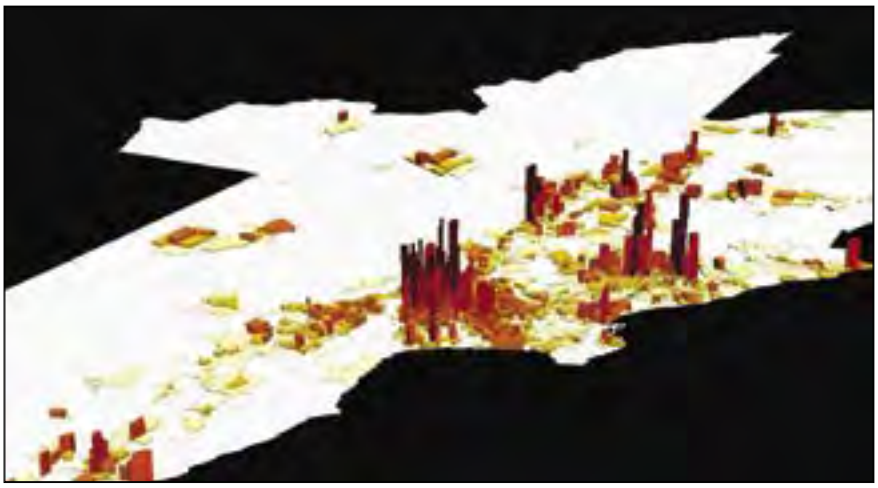
PILOT Scenario Analysis Results

PILUT 1

This alternative is often referred to as the "infill" scenario. It's based on an intense realization of the growth potential of the Coastal Basin of Los Angeles and Orange Counties and the San Fernando Valley. In PILUT 1, both jobs and housing growth would be focused on existing centers and corridors throughout the region. The majority of the workshop maps used similar strategies for accommodating growth.

In this scenario the city of Los Angeles, building upon its growing multi-ethnic population, will be transformed into an international city rivaling any in the world. Los Angeles would be home to significant amounts of growth, with most of it occurring through infill development. The intensive network of transportation corridors would be the target of significant reinvestment, creating highly desirable places to live and work in the central city that are near excellent transit service.

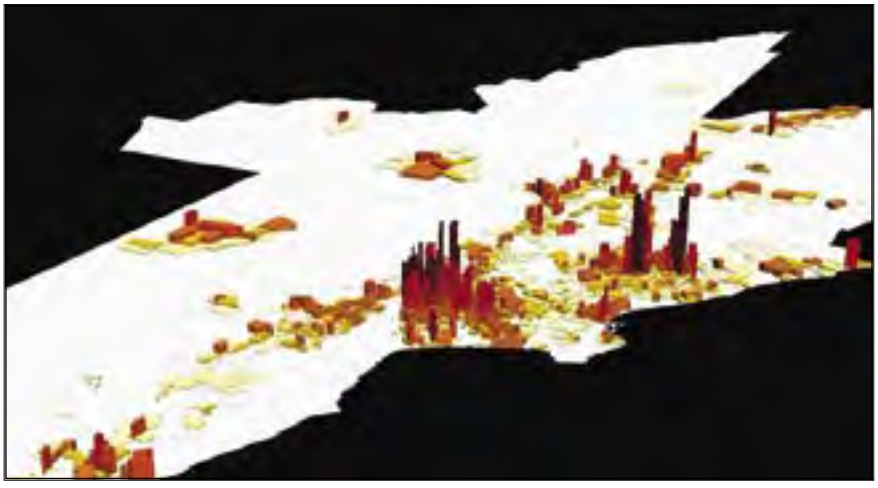
Beyond the Coastal Basin, cities would experience a significant amount of investment. To reduce trips and make transit more widely available, development that might currently locate along interchanges instead would be focused on the combination of existing well-connected road networks, transit access and services. This development would be mixed use, with close proximity to goods and services for new households.



A geographic representation of PILUT 1 shows intensity of development by TAZ.

PILUT 2

This alternative is often referred to as the "Fifth Ring" scenario. It is based on a broad distribution of future growth in the region. While the basin is still popular, an increasing share of growth will locate in newer cities. Places such as Palmdale and Ontario would become regional centers, with growth similar to that experienced by Orange County in the 1960s and 70s. Because most of the development occurs at the edge of what is current development, many towns and cities that today are separate from one another will grow together. The growth of the outer ring cities will transform the region, bringing economic growth to areas that have seen mostly housing development over the last decade. The region will become even more polycentric, with Palmdale, San Bernardino/Riverside, and Los Angeles operating as the three large centers from which growth extends.



In PILUT 2, outlying areas are a focus for growth.

With the outward expansion in business growth, Los Angeles will not see the extent of growth seen in PILUT 1. With job growth focused around the Ontario airport, San Bernardino and Riverside will merge to become one unified job destination. Palmdale will grow at a rate and density similar to Las Vegas during the last decade – minus the casinos.

There will be a significant number of new jobs coming to these emerging areas as manufacturing finds its place among the new investments in airports and centers. Accompanying all of these jobs are thousands of new homes, ensuring a balanced mix of jobs and housing that will allow the transportation system to work most efficiently.

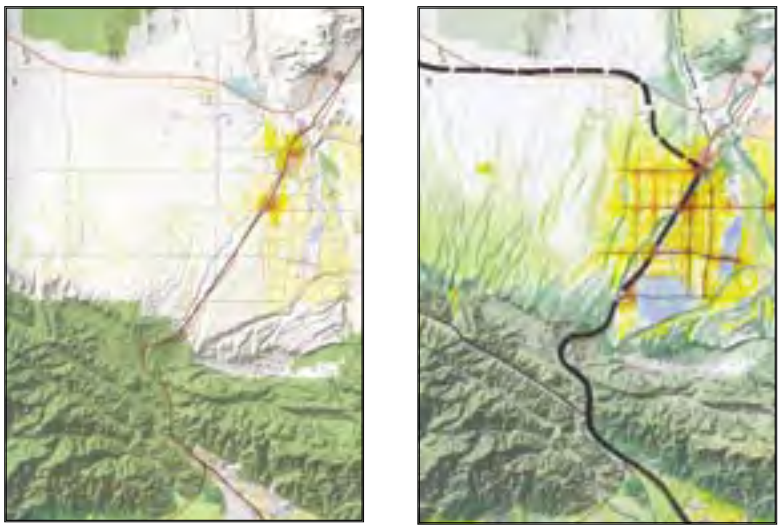
Within the centers themselves, housing will play a smaller role, since commerce is more predominant. These areas will, however, be home to a significant number of homes, primarily multi-family with some small-lot, single-family housing at the edge. Redevelopment and infill will continue to play a role in the development of new housing, likely continuing at about the same pace as today.

PILUT Performance

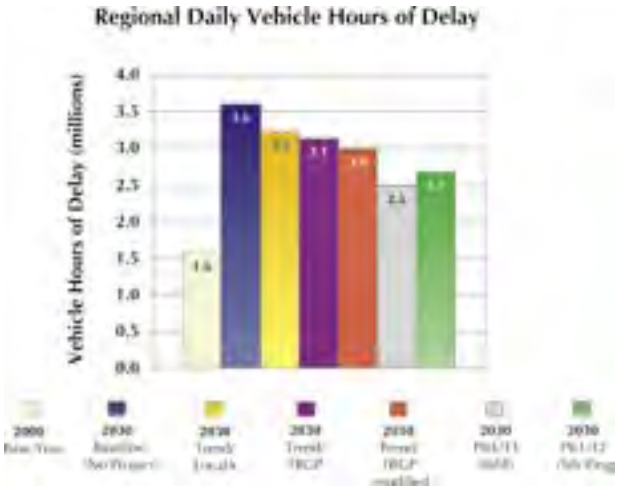
The two PILUT scenarios, using land use integrated with transportation, modeled significantly better than the conventionally created scenarios, the projected trend, and the composite of local plans. Specifically, with the same amount of investment, there was significantly less congestion and slightly more transit and walking than unaided. When the results are taken in whole, it is clear that either of the PILUT land use scenarios would be superior to the trend scenarios – and that they would achieve benefits equivalent to billions of dollars of transportation investments. Clearly, smart land use choices are one of the best potential strategies that can be used today. It is interesting to note that while PILUT 1 and 2 have very different distributions, they have similar development patterns that were developed by SCAG's Growth Visioning Subcommittee. When these principles are implemented, transportation improves to some extent, regardless of the specific location of development in the region. This is a robust strategy – it works well in many scenarios.

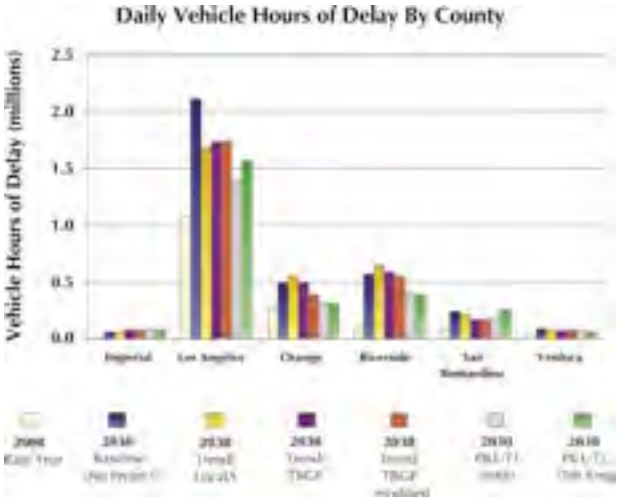
Toward the Growth Vision

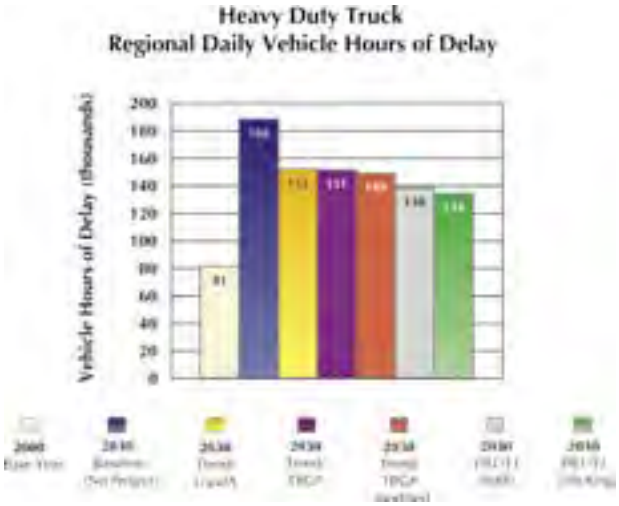
Both PILUT 1 and PILUT 2 are plausible scenarios in the long term. But because they are "bookends," neither scenario represents a story about growth that is readily feasible in the short term. Both require significant and immediate policy changes. PILUT 1 requires policy changes at the local level to focus infill in existing centers, in transportation corridors, and around areas with high quality transit service. While PILUT 2 also would require significant policy changes to achieve its compact form, it also requires intensive investment in transportation facilities to spur the employment growth required in the High Desert. Based on results of the PILUT scenario modeling and the workshops, the team began to create the Growth Vision alternative.

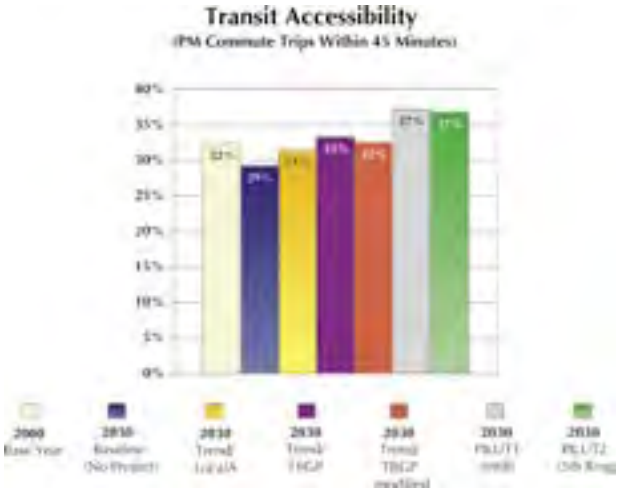


PILUT 2 (right) places more growth in high desert areas such as Victorville compared with PILUT 1 (left).


Regional Daily Vehicle Hours of Delay
Vehicle Hours of Delay (millions)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1.6
3.6
3.2
3.1
3.0
2.5
2.7
2000
2030
2030
2030
2030
2030
2030


Daily Vehicle Hours of Delay By County
Vehicle Hours of Delay (millions)
2.5
2.0
1.5
1.0
0.5
0.0
Imperial
Los Angeles
Orange
Riverside
San Bernardino
Ventura
2000
2030
2030
2030
2030
2030
2030


Heavy Duty Truck
Regional Daily Vehicle Hours of Delay
Vehicle Hours of Delay (thousands)
200
180
160
140
120
100
80
60
40
20
0
81
164
151
151
145
136
134
2000
2030
2030
2030
2030
2030
2030


Transit Accessibility
(PM Commute Trips Within 45 Minutes)
40%
35%
30%
25%
20%
15%
10%
5%
0%
32%
29%
31%
33%
32%
37%
37%
2000
2030
2030
2030
2030
2030
2030

Putting it Together: The Growth Vision

The foundation of the Growth Vision is built on lessons learned from surveys, workshops, scenario modeling sub-regional review sessions and policy dialogues.

Fundamental among the "lessons learned" from the PILUT scenarios is that the physical limits on developable land, from mountains and streams to existing development, will require finding new ways for the region to grow. Unable to rely on a never-ending supply of usable vacant land, cities and developers will need to focus on mixed-use development and on locating new jobs and houses in developed areas that are capable of supporting additional growth.



The network of transportation corridors provides a strong backbone for future land use in the Growth Vision alternative.

The region is rich with efficient and well-connected centers and corridors. These are prime areas where investment in infrastructure can act as a catalyst to focus growth. Development in these areas provides residents with many options for travel – from foot to bus to car – and minimizes reliance on scarce vacant land. Modeling has shown that more intense development, along with a mix of uses in these areas, has a great effect on reducing regional congestion.

Residents of the Southland can be open to higher-density development, especially when it brings investment to areas in need or preserves the region's open space. There is increasing evidence that new forms of higher density housing, when combined with the proper amenities and urban environment, are successful in the marketplace.

The amount of land that the region might consume does not depend on differing policy choices as much as it depends on the many smaller regions surrounded by rural land. Because there is such a limited supply of available land near infrastructure, the amount of land consumed in the future is less important than how the land is used.

The strategy of combining compact, mixed-use development with housing and jobs near major transportation infrastructure proved to be of enormous benefit in accommodating future growth. There is much evidence that a reduction in vehicle driving occurs in areas where land use and transportation are integrated and densities are higher. In a congested region such as the Southland, integration of land use and transportation has an even greater effect.



Higher density housing along the Wilshire Boulevard corridor.

Foundation of a Vision

The lessons outlined in the last section provide the basis for crafting a vision that uses the four Growth Visioning principles.

Again, the foundational principles for developing the Vision are:

- ✔ Improve ***mobility*** for all residents
- ✔ Foster ***livability*** in all communities
- ✔ Enable ***prosperity*** for all people
- ✔ Promote ***sustainability*** for future generations

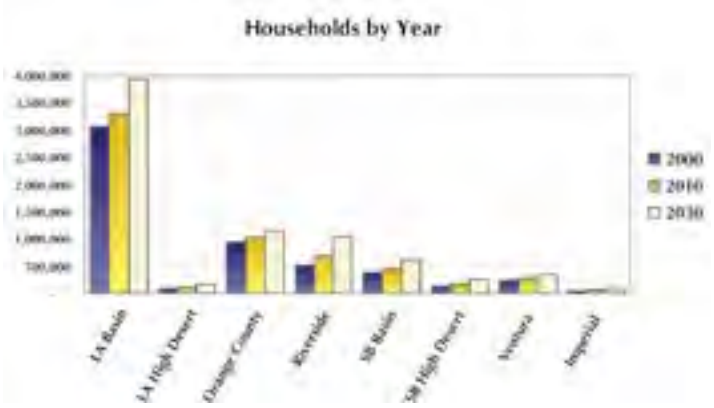
The Growth Vision is based on a combination of inputs, namely:

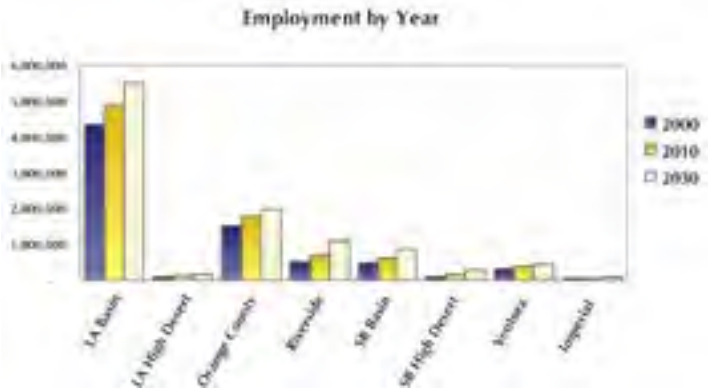
- The Growth Visioning principles
- Composite of local government general plans and input to SCAG
- Pojected demand for jobs and households
- Compass workshops and survey results
- Lessons learned from the PILUT research
- Sub-regional review sessions
- Policy dialogues

Creating the Growth Vision alternative is one way to combine these principles into a viable and realistic alternative. It is important to note that there are many ways to configure the Growth Vision alternative and still achieve the same (or better) results. The important decisions are the principles, strategies and performance of the results. In crafting a practical Growth Vision for the region, the goal should be to achieve high performance and beneficial results – while tailoring the land use and investments to local needs and wishes.

Short-term Issues

It was important to include SCAG's projections for 2010 into the Growth Vision process so that the two projects can be folded into each effectively. While many of the policy changes depicted by the Growth Vision scenarios were positive, it may take some time to incorporate them into local ordinances and local development practices. By building the Growth Vision alternative on top of the 2010 projections, a full six years is incorporated for "ramp-up," or adoption of new policies and acceptance of new building styles. Further, the alternative was designed to recognize the local input received by SCAG during the RTP process. While the locations of jobs and housing are significantly different than in the conventional models, for the most part the total projection is very close to that requested by the member jurisdictions of SCAG.





Prosperity: Economic Drivers

Southern California is an international center for freight, manufacturing, services and artistic production. These traditional sources of job growth will be reinforced in the regional vision through investments and strategies that bolster the local economy.

Southern California will continue to be both the cultural and financial center of the western United States, with major markets in Asia and Latin America. With increased opportunities for work and significant reinvestment, the motto will surely be "place matters." Major employers and corporate headquarters, along with start-up and creative-class businesses, all will be drawn to the region's core.

In addition to a commercial and cultural core, the region depends on the free flow of goods from its ports to maintain a healthy economy. The Growth Vision will help ensure the movement of freight flows efficiently through the region. Its aim is to reinvigorate the economy in the short term with road and rail improvements and to carry on long-term prosperity via the free flow of goods. The Growth Vision calls for upgrading much of the region's freight movement infrastructure. Dedicated truckways would be built along many sections of busy freeways to improve the movement of freight truck traffic. Railway improvements along specific corridors would move freight more efficiently. A MAGLEV train would offer an alternative mode for regional travel, to reinforce the larger business centers, and to improve the connections between the region's airports.



Prosperity will depend on efficient movement of goods into, through, and out of the region.

The success of the Alameda Corridor has spawned numerous proposals for improvements that will benefit freight movement. An inland port in San Bernardino County, which capitalizes on the regional interface between trucking, rail, and air is key among these enhancements. The ultimate vision is to provide direct rail access between the port and this major intermodal facility that will intercept through-region shipments for repackaging before distribution. Shipments for local markets still will be distributed from Long Beach but will cause less congestion.

The inland port intermodal facility will become a regionally significant employer, cementing the area's role as both a job and distribution center. In the process, a large number of currently underutilized industrial sites in the City of Los Angeles will become available for new uses.



The Growth Vision will improve freight distribution from the port of Los Angeles.

Air Cargo Demand
(Thousands of tons of Air Cargo)

	2002		2030	
Airport	Tons x 000	Percent of total	Tons x 000	Percent of total
Burbank	41	1.6%	87	1.0%
John Wayne	15	0.6%	43	0.5%
Los Angeles	1,958	74.7%	2,340	26.8%
Long Beach	58	2.2%	137	1.6%
March	0	0.0%	1,117	12.8%
Ontario	547	20.9%	2,252	25.8%
Palm Springs	0.8	0.0%	128	1.5%
Palmdale	0	0.0%	1,024	11.7%
San Bernardino	0	0.0%	1,092	12.5%
Victorville	0	0.0%	504	5.8%
Total	2,622	100%	8,724	100%

Air freight plays a significant role in the region's economy. While Los Angeles International Airport (LAX) currently handles the majority of air freight in the region, the Growth Vision proposes shifting more cargo movement to Ontario International Airport to free LAX for passenger travel. Ontario International Airport has already become a major facility for United Parcel Service, handling most shipments arriving or departing from the West Coast. With the acceleration of Internet commerce, special delivery services can be expected to increase at a higher rate than traditional shipping. Ontario Airport is planning an additional runway to increase capacity.



Employment in proximity to Ontario Airport.

These strategies carry the potential to increase the hum of the region's economy. Investing in freight movement infrastructure will keep the region's ports healthy. Ports – the beginning points for trade and commerce – are at the heart of this region's economy. Ensuring free-flowing movement of goods is imperative to the region's economic prosperity.

The Growth Vision depicts a region of many centers. The centers, in conjunction with the high intensity corridors that contain a significant amount of the region's commerce, will be filled with the vibrancy that comes from investment and additional people and jobs. While growth will be shared, variety will be intensified. These centers and corridors will continue to specialize, providing a home to unique business and cultural elements. The critical mass that can be attained through clustering of these uses will help cement the identities of places such as Burbank with the film industry, Los Angeles as a cultural center, and job centers such as the harbor or inland port as centers of industry.

Beyond the Coastal Plain, the shape of new development will undergo change. Auto-oriented commercial uses, from stores to offices, will find vacant land with good auto access difficult to obtain. While there will continue to be areas that are dominated by auto-oriented business, redevelopment and its higher densities will become more common. Existing city centers and the remarkable network of corridors will become the choice location for new jobs, combining with existing employment to strengthen the centers. These areas are locations with well-connected street systems, a pedestrian-friendly street environment, efficient freeway access and many transit options.

The cities and towns of the High Desert will make a name for themselves as they grow into unique new places. With a large supply of available raw land and a rapid rate of growth, these areas will have the unique opportunity to go from the planning stage to realization of a vision quickly.

Ventura County will continue to embrace the value placed on agriculture and open space. The SOAR boundaries, drawn for preservation, will demonstrate their power in bringing land uses together and lessening the impact on the transportation system. As long as Ventura County can accommodate sufficient workforce housing to match its employment growth, the SOAR boundaries will have a beneficial impact on transportation – if the boundaries cause long commutes because of a lack of housing, they could exacerbate congestion. Communities in this area will grow in popularity, capitalizing on the scenic beauty and quality of life.

Farthest from the Coastal Basin, Imperial County also will retain its strong agricultural heritage. Existing towns such as El Centro will evolve as even more important commercial and cultural centers. Strong preservation of agricultural land will keep the cities from unnecessarily growing outward. Building on a compact urban form, residents will have ready access to jobs, goods, services, and cultural activities within a very short distance of their front doors.

Livable Communities

Along with the Basin's increase in employment, Los Angeles and Orange Counties will become significant magnets for housing growth. Long commutes to outlying areas will be discouraged by rising congestion and the availability of nearby jobs and services. With many new residents from areas with high urban densities, the new population will be more adapted to urban living. The new availability of old industrial sites within the Basin will provide a much needed increase in land available for housing. These areas will be transformed into new neighborhoods, complete with a range of housing options and excellent accessibility to the Basin's



Open space protected by general plans, government ownership, or other conservation management efforts.

jobs, entertainment, and cultural opportunities. New housing will sprout at a rapid rate along the transportation corridors that define the area. This resurgence will provide housing for thousands of people through infill and redevelopment.

Throughout the region, existing centers also will become the focus for new housing. Like the Basin, but on a smaller scale, these areas will to some extent replace the demand for today's subdivisions. People will choose to live closer to work, shopping and transit. Local businesses will prosper as people enjoy shopping close to home. For areas such as Ventura and El Centro, as well as much of the region, this will mean a plethora of fresh local foods and quality local products. People living in the bustling urban core will find daily needs and cultural opportunities easily accessible. With a great variety of transportation choices as well, people living in commuter suburbs will also reap the rewards of a livable region.

Suitable housing will be available to everyone, regardless of where they live in the region. There will be a wide variety of housing choices – from public housing to multi-family housing and single-family homes – that are within the means of the majority of the labor force. Although many affordable housing units will be built through infill development, a fair share of workforce units will be located throughout the region, not just in the inner urban areas.

The same growth strategy that helps the Growth Vision perform so well on transportation models also makes the Growth Vision more equitable. The Growth Vision's focus on balanced development – ensuring that workforce housing is built near job rich areas, and that both are served by good transit services – shortens commute trips and makes jobs and housing more accessible to people without cars.

The Growth Vision also depends on investment in important regional infrastructure and transit services that satisfy the transportation needs of the labor force throughout the region. Transit services that serve low-income residents are enhanced and upgraded in the Growth Vision.

Sustainability

Sustainable cities pay close attention to their environment – recognizing correctly that it contributes significantly to an area's quality of life and that it creates a sense of place and character. Humankind has always modified the environment to meet its needs, but throughout most of history these changes have been, by modern standards, relatively modest adjustments to the landscape. It is only recently that such monumental attempts to control the landscape, as are commonly seen in American cities, have been made to develop land. Steep slopes, flood plains and wetlands are persistent features in the environment that have historically shaped development. Disregarding the risks involved in urbanizing them is potentially an enormous community liability, both financially and in terms of predictable community disruption.

The Growth Vision seeks to accommodate growth while avoiding the development of sensitive open space resources. In developing the scenario, development was avoided on steep hillsides, areas designated as open space in local plans, protected agriculture, and areas identified as potential future open space. Actually, the avoidance of these areas increased the beneficial transportation results by concentrating new housing and jobs closer together, and by providing access and views of the natural areas of the region to its urban inhabitants.



A depiction of the transportation network for the Growth Vision with Imperial subarea as the inset.

Mobility

The vast network of transportation corridors that help to define the Los Angeles Basin will undergo a transformation. Fueled by demand from new residents, the boulevards, with their high quality transit, will play a dominant role in people's daily lives. They will shine as a signature to the health and vitality of the Basin. Transit will play an even greater role in serving people's daily needs.

A combination of increased separate lane – or fixed guideway – bus and rail transit, along with growth in traditional buses, will enable quick and easy travel throughout the Basin. Los Angeles and Orange Counties will become part of a seamless transit network. For longer distances, high-speed trains and MAGLEV (trains that can go more than 240 miles per hour because they use magnets to hover over the guideway) will fill a role of ever increasing importance. This high-speed system will easily serve center-to-center regional travel as well as longer in-state trips.

The Ontario Airport will experience a unique type of growth as it is developed to an international standard. And by largely eliminating short distance flights, Los Angeles International Airport can shift to become more of a national and international airport without expanding the number of planes using it as a destination. These two airports will ensure Southern California's connection to the world and will further cement the region's position in the global marketplace.

Smaller airports around the region will absorb the demand for some of the flights from the rest of California and other nearby states, while the majority of the short-haul trips will occur by rail.

One of the keys to this strategy is promoting the use of freeways for long trips and local streets for short trips. The Southern California region has a good system of arterial streets that can replace the need to use freeways for short trips. In the Vision, many arterials are converted to boulevards, which are laid out in a web-like network or grid so that convenient access is provided to the greatest number of locations and multiple routes are available in times of congestion. The arterials will emphasize capacity and good design rather than speed, somewhat redefining the goals of mobility and accessibility. Only a small fraction of total daily trips in the region are longer than 15 miles, so the arterials are designed to serve trips of moderate length (up to 30 minutes) at moderate speeds (30 mph). The Growth Vision emphasizes good transportation facilities closer in, connecting our existing communities with an arterial network and planning future growth areas near existing transportation infrastructure.



Bus Rapid Transit



Ontario Airport



Maglev

Arterials Strategy

To reduce congestion on key streets and make them a viable alternative to freeways for medium distance travel, the Growth Vision proposes community-friendly arterials. They are designed to be safe and convenient for pedestrians as well as cars, to promote a pedestrian-friendly pattern of land uses, and to encourage alternative modes of travel.



Open spaces, landscaping, and sidewalks help make a safe walking environment.

The Purpose of A Street

Conventional highway and road planning and design has focused on efficient car movement, often at the expense of the adjacent business environment, community interaction, pedestrians, bicyclists, and others not in cars. Because of this, the word "arterial" often conjures up an image of wide roads, grit, traffic signals, and ugly roadside development. They are generally designed to have uniform speeds throughout their length, resulting in places that tend to look the same.



Multimodal streets focus on moving people, not just automobiles.

Streets for Multiple Modes

The Growth Vision views most roadways, from local streets to intra-regional arterials, as places that add to the quality of life of adjacent neighborhoods. Roads are not simply routes to move people and goods from place to place but have the potential to be quality places themselves. The focus of a roadway should be the people using it, not the cars and trucks moving through it. Roads have the potential to be many things and to accommodate a variety of travel modes. Seen in this light, a road can accommodate pedestrians as well as bikes and cars, while simultaneously serving as a community gathering place.

Arterials should be multi-modal, or multi-purpose, balancing the needs of all types of travel, including walking, bicycling, and transit, so that people have choices in how they get from one place to another. This is important for at least two reasons. To start with, a roadway with a fixed width can move more people and goods – which will improve regional mobility – if forms of travel such as walking, bicycling, and transit are used in addition to automotive vehicles. These means of travel simply take up less space per person.

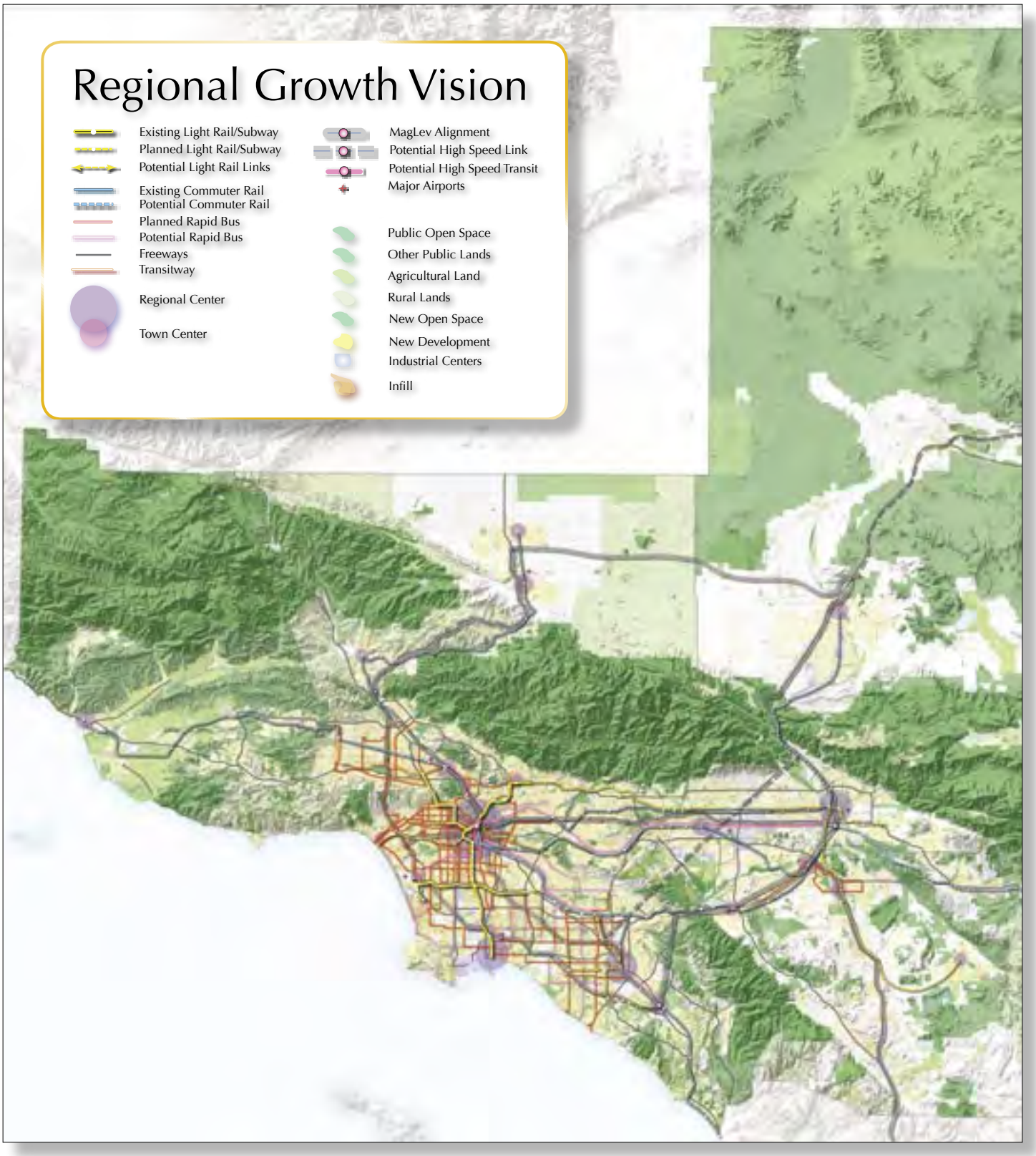
An additional advantage is that walking, bicycling, and transit produce many positive qualities – they produce less pollution and noise, promote exercise and physical fitness, and spur development that is geared toward pedestrians.

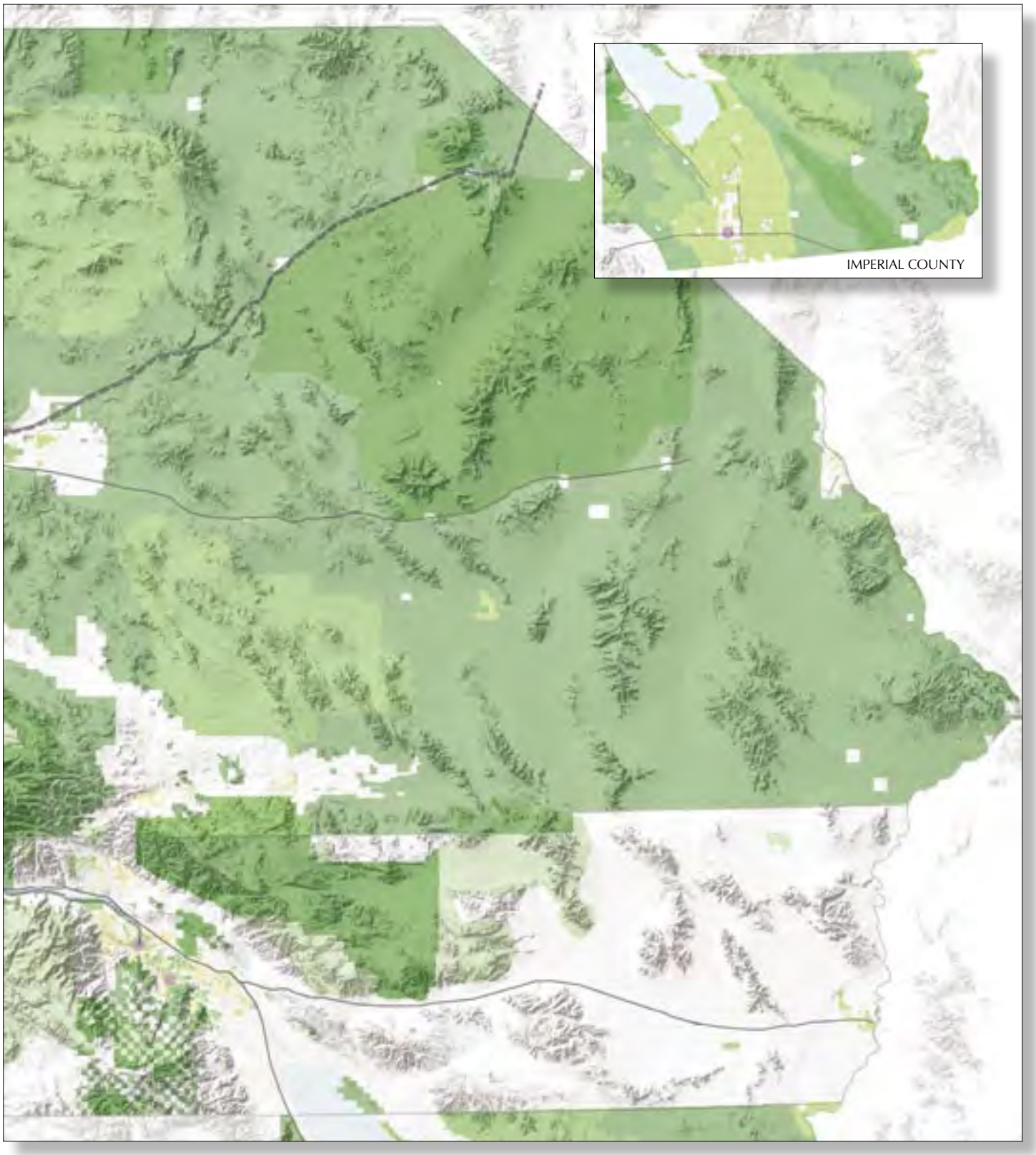
Consider Streets And Buildings Together

The characteristics of each type of road suit some forms of development better than others. To take advantage of pedestrian-oriented land uses envisioned in the SCAG Growth Vision, a new circulation pattern to match these land uses must be developed – one that accommodates the car and transit and that reinforces pedestrian locations rather than isolating them. Instead of designing roads to be most convenient for cars and drivers, without regard to the resulting land use implications, it is important to consider the type of communities desired and to design roads to fit in and foster these communities.

Strong arterial design also focuses on how the adjacent buildings are designed and used. Arterial streets should not be considered by themselves, because they are defined in part by the adjacent buildings and land uses. Streets are made up of the area where vehicles move, the area where pedestrians move, and the areas where buildings interface with the rest of the street. The Growth Vision calls for street design that considers the entire right of way – travel lanes, parking, bike lanes, medians, sidewalks, and street trees – and ensures it is appropriate for and complements the adjacent buildings.

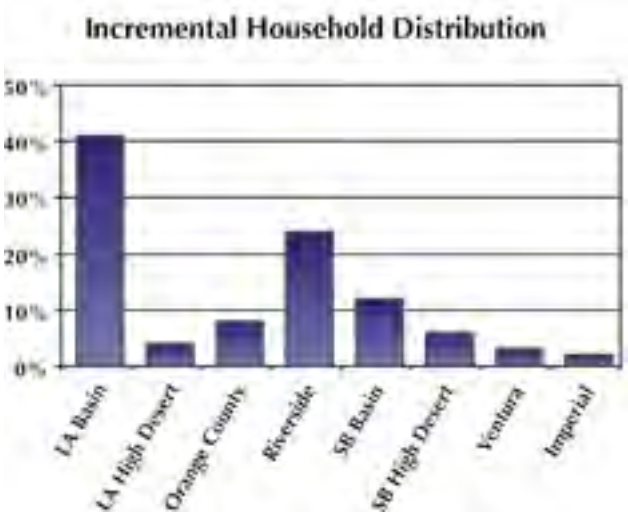
Since every trip begins and ends with walking, the pedestrian system is the primary transportation element that connects all travel modes. An arterial's pedestrian environment should move people and provide them access to adjacent land uses. A safe, comfortable and attractive environment includes a continuous system of sidewalks, wider sidewalks at congested locations, visible crosswalks, pedestrian signals, landscape buffers between sidewalks and streets, and a variety of public open spaces.

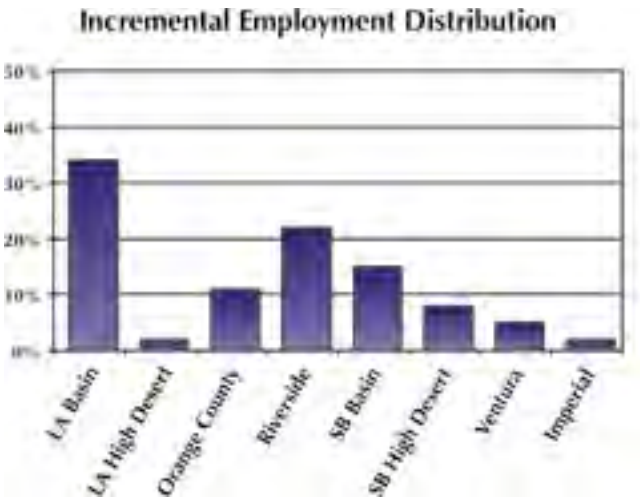

Regional Growth Vision
Existing Light Rail/Subway
Planned Light Rail/Subway
Potential Light Rail Links
Existing Commuter Rail
Potential Commuter Rail
Planned Rapid Bus
Potential Rapid Bus
Freeways
Transitway
Regional Center
Town Center
MagLev Alignment
Potential High Speed Link
Potential High Speed Transit
Major Airports
Public Open Space
Other Public Lands
Agricultural Land
Rural Lands
New Open Space
New Development
Industrial Centers
Infill

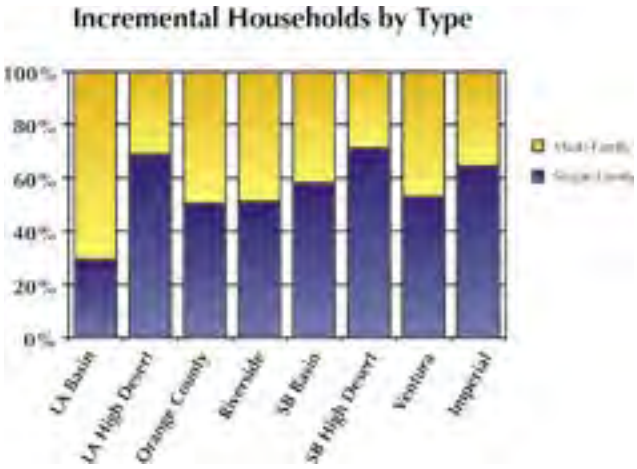

IMPERIAL COUNTY

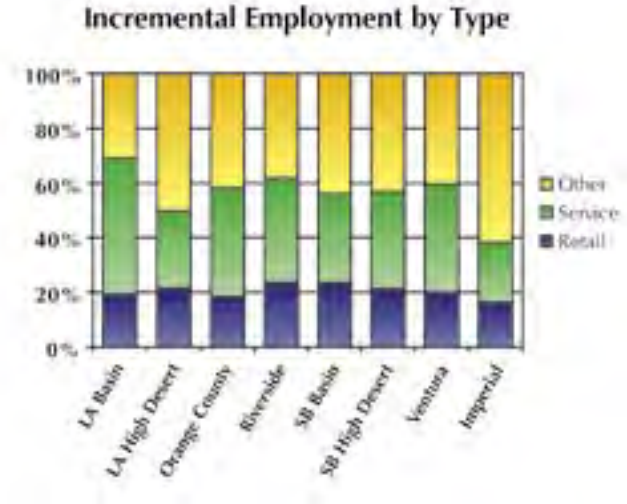
Results

The Growth Vision alternative places most growth in the Los Angeles Basin, Riverside County, and the San Bernardino Basin. These modeling zones have existing infrastructure, particularly transportation related, that allows growth to be absorbed with minimum adverse effects.







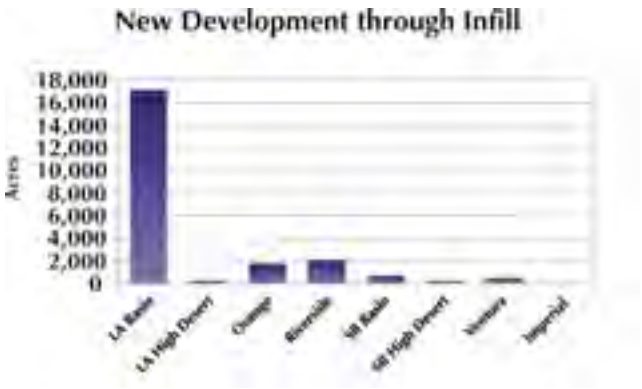


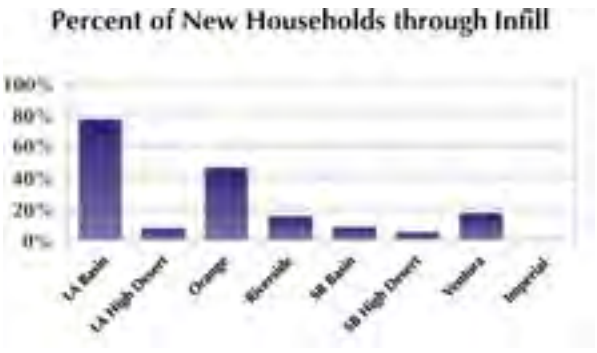
In the Growth Vision alternative, the Riverside and San Bernardino High Desert modeling zones absorb the most greenfield development – new development on vacant land. Ventura and Orange Counties have the least development on vacant land. Los Angeles Basin absorbs the most growth – both in households and employees – through infill, far more than any other modeling zone. Orange County also absorbs almost half of its households through infill.

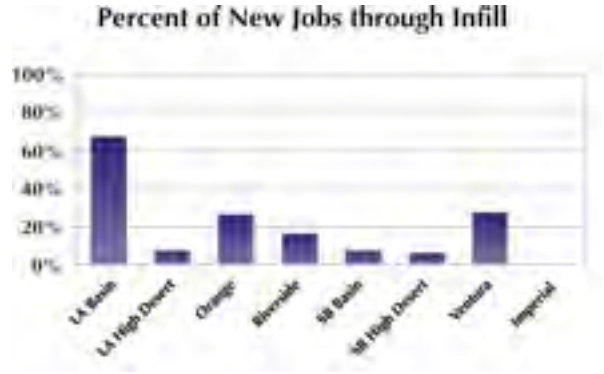


The eight transportation modeling zones.



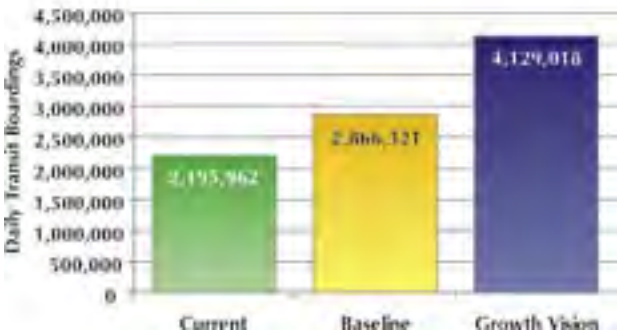




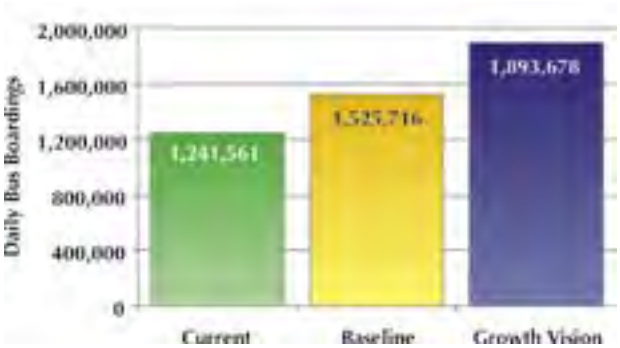


The Growth Vision alternative has much higher transit ridership than the Baseline alternative. Total daily transit boardings increase 44 percent in the Growth Vision alternative over the Baseline. MTA bus boardings increase 24 percent over the Baseline and 53 percent over the current level. The Baseline increases only 23 percent over the current level.

Total Daily Transit Boardings, 2030

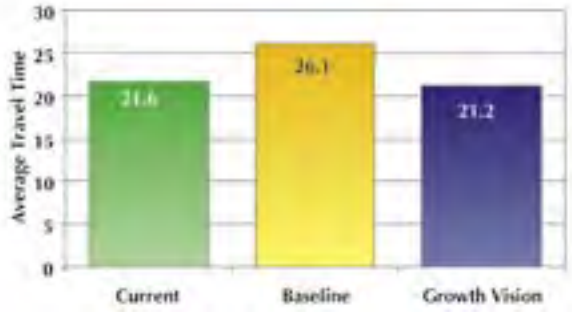


MTA Bus Daily Transit Boardings, 2030

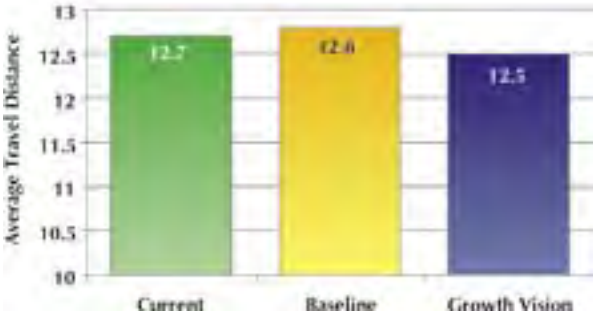


While the Baseline increases the current average travel time to work by 21 percent, the Growth Vision alternative actually decreases the average travel time by 2 percent. The Growth Vision alternative also decreases the average travel distance to work, while the Baseline increases average travel distance. The Growth Vision alternative decreases average travel distance to work by 2 percent as compared to the Baseline.

Home to Work Trips –Daily Travel Time per Person, 2030

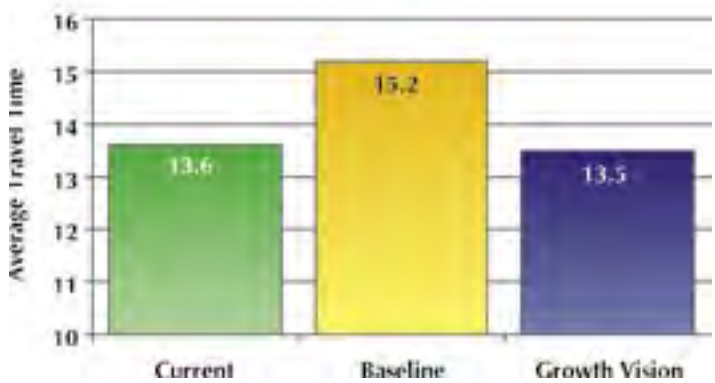


Home to Work Trips –Daily Travel Distance per Person, 2030



The Growth Vision alternative decreases the average travel time for all trips by 7.5 percent, while the Baseline increases the average travel time by 12 percent, from 13.6 minutes to 15.2 minutes. The Growth Vision alternative decreases average travel time by 11 percent over the Baseline.

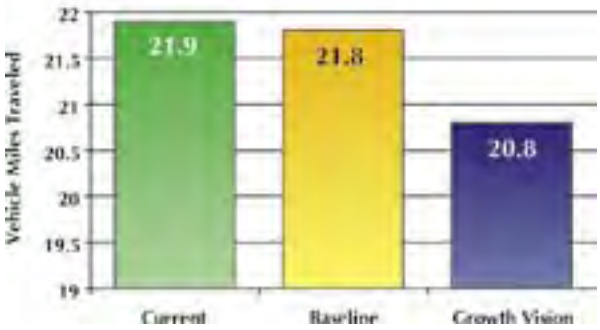
All Trips –Daily Travel Time per Person, 2030



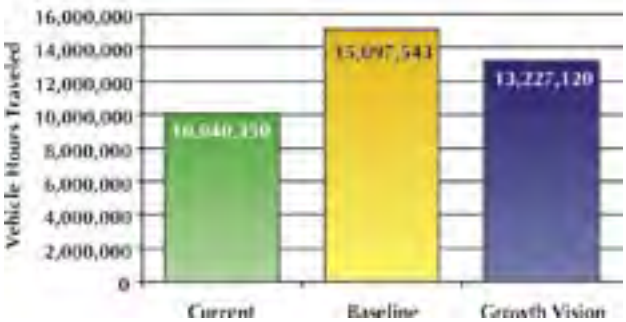
In both the Baseline as well as the Growth Vision alternatives, vehicle miles traveled per capita in the region decrease from the current level. However, the Growth Vision alternative represents a much greater decline – a 5 percent decrease compared to the decrease of less than 1 percent seen in the Baseline.

The Growth Vision alternative performs even better when considering total vehicle hours of travel. While the Baseline increases hours of travel by 50 percent compared to the current level, the Growth Vision alternative only increases the hours of travel by 32 percent compared to the current level – reducing the hours of travel by 12 percent compared to the Baseline.

Daily Vehicle Miles of Travel per Person, 2030

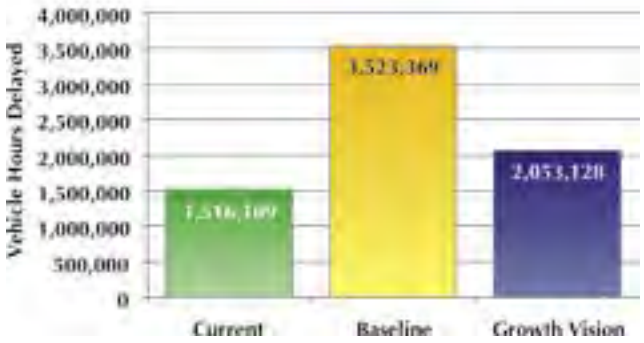


Total Daily Vehicle Hours of Travel, 2030



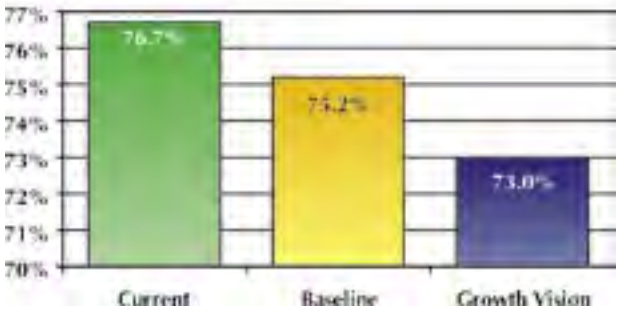
Vehicle hours of delay increase by 132 percent from the current level in the Baseline alternative. The Growth Vision alternative represents a reduction of 42 percent from the Baseline, limiting the increase from the current to 35 percent.

Total Daily Vehicle Hours of Delay, 2030

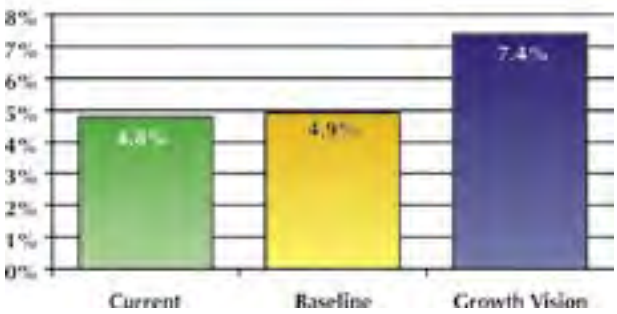


While the rate of people driving alone decreases significantly in both the Baseline and the Growth Vision alternatives, the Growth Vision alternative shows a greater increase in the transit mode split. The percentage of people using transit to get from home to work or school increases from less than 5 percent currently and in the Baseline to 7.4 percent in the Growth Vision alternative. This represents an increase of 54 percent.

Home to Work/University Trips – Drive Alone Mode Choice, 2030



Home to Work/University Trips – Transit Mode Choice, 2030



Strategies & Performance

The transportation model results of the previous section indicate that the Growth Vision performed better than any other scenario. Transit mode split is increased while travel distance and time, vehicle miles of travel, and vehicle hours of delay all decrease. The obvious question is why: What makes the Growth Vision perform better than the Baseline scenario? What strategies contributed to the superior performance of the Growth Vision?

The Growth Vision alternative was created by thoughtfully locating a mix of land uses around the region, while taking into account current development, vacant land, the current and proposed road and transit network, and environmentally constrained areas. In this way, certain guidelines could be followed:

- Locate growth in areas with robust existing transportation infrastructure (plenty of streets)
- Locate growth in centers and along transportation corridors
- Locate growth near transit corridors/stations
- Locate jobs near housing and vice versa
- Locate heavy trip-generating development in areas with robust existing transportation infrastructure
- Avoid sensitive environmental features such as steep slopes, wetlands and stream corridors

DEVELOPMENT PATTERNS MAKE THE DIFFERENCE

Adhering to the guidelines listed to the left resulted in the following development patterns, which the Compass team believes to be the reason for the excellent performance of the Growth Vision:

Compact, Corridors- and Centers-Focused Development

The Growth Vision is much more compact than the Baseline Scenario. In the Growth Vision alternative, growth was located, as much as possible, in centers and along corridors. Growth was primarily located in existing centers and corridors, but if none existed, new centers and corridors were created.

Locating growth in centers improves transportation performance in several ways. First, the centers themselves usually have a good street network. There are many streets, options, and routes for getting where you want to go, so that not everyone will need to use the same road at the same time. Secondly, centers usually are easy to access. They are usually near freeway exits or at the intersection of other important roadways. Finally, centers are usually accessible by transit, and transit may provide mobility within the center as well. These factors allow centers to absorb growth without as much strain on the transportation system.

In addition, when employment and housing are located in centers and along corridors, trips become shorter. Housing, shopping, errands, recreation, entertainment and employment are more likely to be nearby. Even if housing or employment is elsewhere, the center or corridor encourages trip chaining for other needs such as shopping and errands.

Mixed use development

The Growth Vision employs mixed-use development, which ensures a mix of jobs and housing. Similar to the centers-focused strategy, mixed-use development brings daily errands within reach, shortening the two-thirds of trips that are non-commute trips.

Transit-oriented development

The Growth Vision located as much growth as possible near transit corridors and stations. In some cases, transit stations grew into mixed use, pedestrian-oriented centers, designed so that people can access them via transit and then walk to all other destinations.

Centers-based, transit-oriented development is particularly important for employment. Dispersed employment is almost impossible to serve via transit, because it is too expensive and takes too long. For commuting by transit to be feasible, employment density is even more important than housing density. Dispersed housing can be served by park-and-ride facilities, but dispersed employment cannot. Destinations (employment) must be close to transit stations. In the Growth Vision, employment density near transit corridors/stations was very high, in order to locate as many jobs as possible near transit and to make transit a viable commute option.

Sub-Regional Review

Southern California Compass conducted review sessions with city planners, public officials and local experts in an effort to refine the Growth Vision scenario that arose from the PILUT scenarios and workshop results. The SCAG region consists of 14 sub-regions, each of which operate as councils of governments in their own right. In an unprecedented effort to include sub-regional input and refine the draft Growth Vision based on local commentary, SCAG hosted review sessions in nearly every sub-region – often more than once. Through reviewing the Growth Vision scenario maps with SCAG, with neighboring jurisdictions and with sub-regional coordinators, local planners, officials and experts refined the public's ideas in finer detail and shaped the draft Growth Vision scenario to make it more consistent with sub-regional growth visioning efforts. In most cases the sub-regional review sessions confirmed the concepts behind the vision and tailored the scenario to a level of detail that only local knowledge and experience could provide.

The sessions showed consistencies and differences between sub-regions and the draft Growth Vision scenario. Open space provisions were consistent between the Growth Vision and much of the local planning initiatives in the region. Yet they also showed differing expectations concerning future housing, jobs and development. Local planners were concerned that entitled and recently constructed projects were sometimes not shown in the Growth Vision scenario. Since the draft Growth Vision scenario was based on public and regional input at the time of the review, local representatives were aware of new and pipeline projects that may not have been known by others. Other comments sought to better coordinate mixed-use centers with existing commercial developments.

The sub-regional review sessions shed light on existing growth visions and opportunities for future collaborative visioning efforts. Just looking at the maps of the Growth Vision and local plans made apparent the local competition for commercial development and opportunities for better land use and transportation coordination between cities. At the same time, the sessions created the opportunity to coordinate the Compass Growth Vision with sub-regional visions already under way. Such visioning efforts have been a great success and, as shown later in the implementation section, local officials and Compass agree that sub-regional visioning is key to achieving the goals of the Growth Vision and a sustainable Southland. *(Individual subregional review sessions are summarized in Appendix.)* The Growth Vision and sub-regional review sessions also serve as valuable input to the Regional Transportation Plan (RTP) and are further discussed in the Coordination With the Regional Transportation Plan section below.

Next Steps: Implementation

Southland Policy Dialogues

After the ideas from the public workshops were refined into the Growth Vision and the Growth Vision scenario was vetted in the sub-regional review sessions, Compass returned to the sub-areas where the map-based workshops were held to conduct five Southland policy dialogues in March 2004. By exploring the tools to make the vision a future reality, the dialogues represented an opportunity to "close the circle" from the map-based workshops. The dialogues aimed to achieve the following:

- Familiarize leaders across the region with the draft Growth Vision
- Help leaders to understand its implications for growth-related decisions within Southern California's sub-regions
- Identify barriers (regional and local) to effective implementation of the Growth Vision
- Develop priorities on key implementation strategies for SCAG, local governments and other decision-makers

At the dialogues, a diverse array of public and private sector community leaders explored implementation strategies, with a particular emphasis on the programs and policies needed to achieve the Growth Vision. Attendees at the dialogues included local civic leaders, government officials, business owners, developers and representatives of state agencies. Nearly 200 local community leaders participated in the five dialogue sessions.

The dialogue participants were asked a series of questions within each of the Growth Vision's four categories of guiding principles: mobility, livability, prosperity and sustainability. The questions were:

1.) What changes in local, regional and state decisions will need to be made in order to achieve the Vision?

2.) What are the barriers to those changes taking place?

3.) What policy and program strategies would help overcome those barriers?

4.) Given the near-term state budget crisis and its implication for transportation and conservation funding (as well as local government services) what needs to be defended to ensure that the longer-term policy and program strategies are not impeded by near-term policy and funding decisions?

Leadership Southern California Class XIV (a diverse group of 48 leaders from across the region) assisted in organizing and executing the dialogues. In addition to the five dialogues held throughout Southern California, a "pilot" Southland policy dialogue was convened with the participation of the 48-member Leadership Southern California (LSC) Class XIV. This group provided invaluable feedback about the Dialogue presentation and discussion format. In addition, many LSC Class members and alumni attended the dialogue sessions.

Policy Dialogue Findings

Key themes emerged from the dialogues in all sub-regions. *(Summaries of the policy dialogues can be found in Appendix IV.)*

Dialogue participants agreed that the region is likely to reach the population growth projected by SCAG for the Compass project (6 million additional people), though when that will occur was debated. To achieve the goals of the Growth Vision in accommodating such growth, policy dialogue participants came to some conclusions, disagreed on other issues, and asked more questions. While each of the policy dialogues produced unique ideas, three broad categories of ideas encompass the majority of the input. The first is the need for better collaboration and coordination of planning. The second theme is recognizing the importance of, and creating incentives for, the private sector and local decision-makers. Finally, there was significant call for sustained education and consensus building.

Better Collaboration and Coordination of Planning:

A primary theme of policy dialogue comments and ideas was better collaboration and coordination. Participants felt that SCAG and sub-regional agencies need to foster better coordination and collaboration among different levels of government, among the various agencies that affect land use, and between land use and transportation planning.

The idea that "sub-regions matter" was a resounding message at the dialogues. Participants emphasized the importance of planning that is tailored to the particular needs of a sub-region. Through the collaboration of sub-regional visioning efforts and the Growth Vision, Compass has acknowledged this need and taken the first step to making the vision a reality at the sub-regional scale. The diversity of the Growth Vision Subcommittee and the multiple public workshops have also helped Compass address the diversity of issues inherent to such a large and variegated region.

To continue along this path, better collaboration of the multiple scales of government and land use planning entities is necessary, according to dialogue participants. The principles need to be acknowledged and acted upon at the state, regional, sub-regional, local and community levels. For example, state agencies and regional agencies have tremendous impact on transportation infrastructure, while local entities have greater control over land use. With this understanding, participants expressed a desire for greater partnership with state agencies. At the same time, SCAG sub-regions are increasingly creating their own visions of growth to coordinate between their cities. Community planning initiatives also shape the design of open space, main streets and local districts. Participants recognized that these various jurisdictions exist and each has a unique role in land use and transportation planning. Achieving the Growth Vision therefore means relying upon and coordinating between each of these entities and levels of government.

The policy dialogue participants also stressed the need for collaboration among the many local public agencies that make land-use decisions. Transportation agencies, school districts, utility districts, redevelopment authorities and others agencies all have an impact on land use and, consequently, transportation. Coordinating decisions between these public bodies is another essential step in the direction of the Growth Vision.

As the Growth Vision principles are recognized locally and regionally, better coordination of land use and transportation planning is necessary. The Growth Vision analyses showed the benefits the coordination of land use and transportation will have on congestion, air pollution and commute times. To ensure these benefits, dialogue participants called for linking land use plans and project approval with transportation investments.

The Importance of the Private Sector

The policy dialogue participants recognize the importance of business location decisions in achieving a better jobs-housing balance and making jobs more accessible to employees. However, many questions remain about how to influence such private sector decisions. Beyond the traditional strategies of shaping infrastructure and using the project-approval process to influence business development and location decisions, participants could not agree on how to best influence private sector decisions. However, acknowledging these "traditional strategies" while increasing collaboration between public entities will guide business location decisions while removing impediments to market forces – market forces such as the trend toward transit-oriented development or pedestrian-friendly main streets. In the end, local and regional agencies need to maximize choice through incentives for the private sector. By creating development incentives and making them clear to the private sector, Southern California can achieve the Growth Vision by enabling businesses to make their own decisions and by increasing choice in the marketplace.

Sustained Education and Consensus Building

The final theme that emerged from the policy dialogues is the need for sustained efforts in public education and consensus-building related to the Growth Vision.

The participants agreed that a major step is to encourage local and regional officials to approve the Growth Vision principles and use them as guidance for local development and planning. Through this Growth Visioning process, Compass has taken the first step to listen, acknowledge and act upon the diverse ideas of elected officials, planners and citizens from throughout the region.

At the same time, participants recognized the need to acknowledge differing opinions. Not everyone agrees on redevelopment, on solutions to congestion, and on what to create as incentives and how. Achieving the Growth Vision will require broad public understanding and the alignment of thousands of individual decisions made in both the public and private sectors over many years. Thus, participants said, achieving the Growth Vision is as much a "cultural" shift as it is a technical or policy challenge.

In this sense, participants agreed it is necessary to sustain extensive public outreach and education campaigns to achieve the Growth Vision. Education curricula and worker training can encourage new and local ways to achieve vision goals. SCAG and sub-regions should promote exemplary projects and innovative policies that support and complement the Growth Vision. With examples, discussion and popular support, the communities, developers and businesses that make land use decisions will be enabled to set the region on track toward the Growth Vision.

Implementing the Vision

As a result of the policy dialogues, sub-regional input, and a look at best practices around the country, Compass compiled the following implementation framework to turn the Growth Vision into a reality for Southern California. While Compass has succeeded in garnering citizens, planners and officials to create a shared regional vision, its true success will be measured over the time. Southern California can achieve maximum mobility, livability, prosperity and sustainability through a series of agreed upon and feasible implementation tools. What follows, therefore, is a framework for implementing the Compass Growth Vision at the regional, sub-regional and local levels.

The Compass Growth Vision relies primarily on the four principles for a more livable future -- mobility, livability, prosperity and sustainability -- that were adopted by the Growth Visioning Subcommittee. These principles serve as the foundation for both the vision itself and for the strategies that will implement that vision and make it a reality. There are a number of implementation strategies that could be used, including some that are broad and overarching, thus applying to all the principles. Other implementation strategies are narrower and apply specifically to an individual principle.

General Strategies

Develop a monitoring system to gauge local and regional success of the elements within the Growth Vision

What gets measured gets done. One of the key advantages of a scenario planning approach is the reliance on monitoring, evaluation and adjustment of strategies based on success or failure. Without quality monitoring systems in place it can be difficult, even impossible, to accurately gauge the success of planning efforts. The RTP and Growth Vision both lend themselves well to detailed monitoring. The statements and policies about the future that will result from actions made today, tomorrow and the next few years can only be ensured if we can continually verify that we are on track. It is vital to measure our actions objectively to determine the level of performance being reached. This monitoring can provide an early warning system if things are not going according to plan. On the other hand, it can also alert us to early successes that provide valuable lessons and that further the plan's goals.



Of utmost importance in developing a monitoring system for the Growth Vision is that the measures and techniques to be used are developed through a collaborative process where all participating jurisdictions can agree on both the purpose and the method of monitoring. Once developed, this monitoring system should be used on a regular basis, resulting in a report that is shared with all member jurisdictions, which will help everyone understand how their policies and actions affect the collective goals of the vision.

SCAG should begin by incorporating the Growth Visioning monitoring system into the annual *State of the Region Report*. The report should include benchmarks and indicators, which evaluate progress toward quantifiable goals derived from the Vision. This monitoring system also should be used to compare the differences between the 2001 and 2004 Regional Transportation Plans to learn more about the effects of land use on transportation measures, such as reductions in congestion and emissions



Develop a legislative agenda to aid in the realization of the Vision

Coordinate this agenda with the other regional governments in the state, such as ABAG/MTC, SACOG, and SANDAG, to change state law that hinders the a common regional approach. State policy affects a wide variety of issues including transportation policy, housing and even labor laws that may weaken the Southland's potential to attract manufacturing firms.

Issues to be addressed at the state level include:

- Establishing priorities based on the Vision that can leverage funds for local governments.
- Using housing allocation funds and discretional decisions at the state and federal level to reinforce and support the Vision.
- Complying with a regional vision of tangible benefit, such as shifting the burden of proof for EIR compliance from the city and developer to the plaintiff, once compliance with objective measures of a growth management strategy are attained.



Use the Regional Comprehensive Plan as a tool to coordinate local plans and embrace the Southland's many unique local identities

Experience suggests that SCAG, the sub-regions, and local jurisdictions can more easily achieve their collective goals by actively encouraging and empowering sub-regional planning and coordination within the context of a regional comprehensive plan. The Vision should be built on this type of cooperative partnership. The Vision will be implemented through everyday decisions made at the local level and will therefore only succeed if it helps to accomplish local desires. The effort required to implement the Vision will not fall on any one jurisdiction. Cities, counties, transportation authorities and SCAG are partners, sharing the responsibility for making the Vision a reality for the residents of the Southland.

Create a targeted public relations strategy that emphasizes regional leadership and builds a sense of common interests among Southern Californians. Begin to develop a deeper respect for SCAG by the sub-regions and local jurisdictions

Sub-regional groups have discussed the critical importance and lasting potential of a good public relations strategy. This outreach should take a variety of forms. Publicizing the regional planning activities under way with SCAG's partners and the public is the primary goal of a regional PR strategy. This could involve a speaker's bureaus, planning assistance, and various mediastrategies. Other regions have also found great success by preparing handbooks or tools to assist their member cities in achieving a shared vision.

Education also is a key component of this outreach strategy. Education opportunities exist both in and out of the classroom. Conferences or symposia are an excellent way to bring important regional lessons to groups of elected officials, planners, and even students – our future leaders. Introducing regional planning into the schools themselves has also been a successful strategy. A first strategy might involve university-level course work through some of the many planning schools in the Southland. Further down the road, a program could be developed to educate high-school age students. For years Chicago had a mandatory class that taught children about their famed Burnham Plan of 1909. Getting children involved in the importance and quality-of-life benefits of planning at an early age helps to ensure that it will remain a topic of interest and concern as they become adults.

Establish a method to convene representatives from government, civic leaders and members of the development community to work together on issues and challenges that are shared by communities within the Southland

Setting up periodic forums to bring these groups together can be extremely valuable in helping everyone understand different perspectives and goals. Solutions are more easily derived from a common understanding. This coordination will allow the private sector to build the type of products that jurisdictions and their citizens want.





Implementation Tools by Principle

PRINCIPLE #1

*Improve **mobility** for all residents*

- Encourage transportation investments and land use decisions that are mutually supportive
- Locate new housing near existing jobs and new jobs near existing housing
- Encourage transit-oriented development
- Promote a variety of travel choices



Providing transit options is a way to improve mobility for residents within the region.

The 2004 RTP benefited from the land use element that came out of the Compass process. SCAG should begin each RTP process with scenarios based on land use to inform projections and transportation modeling

The 2004 RTP benefited from the land use element that evolved from the Compass process. This "bottom-up" approach has met with success during the Compass process. This includes incorporating input received locally from the sub-region and city review of the Growth Vision into a "starter Compass scenario" for the 2007 model runs, informed by the monitoring of key indicators in the interim.

There is no reason to wait to model these virtual futures. Iterative scenario modeling coupled with a detailed monitoring system will allow SCAG and local jurisdictions to stay continually informed regarding the benefits of the various growth strategies they are employing.

The Regional Transportation Plan is now aligned with the principles of the Growth Vision. SCAG should prioritize transportation improvements so that they parallel goals within the Vision

Projects funded by the RTP could be evaluated using the Vision, and the Vision could provide incentives for implementation of key policies in the RTP. The corridors described in the Vision and on the map are one of several items to explore. Corridors are the easiest places to make a case for using federal and state dollars to help cities with planning. Fully using the corridors will help focus the necessary land use changes into areas where change is both wanted and needed, protecting stable neighborhoods from significant impact. Increasing the housing and jobs in these corridors was one of the leading components of the Vision and led to many of the modeled transportation efficiencies of the 2004 RTP.

Develop a diverse set of pilot corridor projects that show the Growth Vision in action

Successful pilot projects can demonstrate progress in implementing some of the key principles of the Vision. These studies can help in understanding market and regulatory barriers that inhibit both economic growth and the provision of needed housing. Further, they can act as a catalyst, showing other developers, lenders, and jurisdictions the potential that can be achieved.

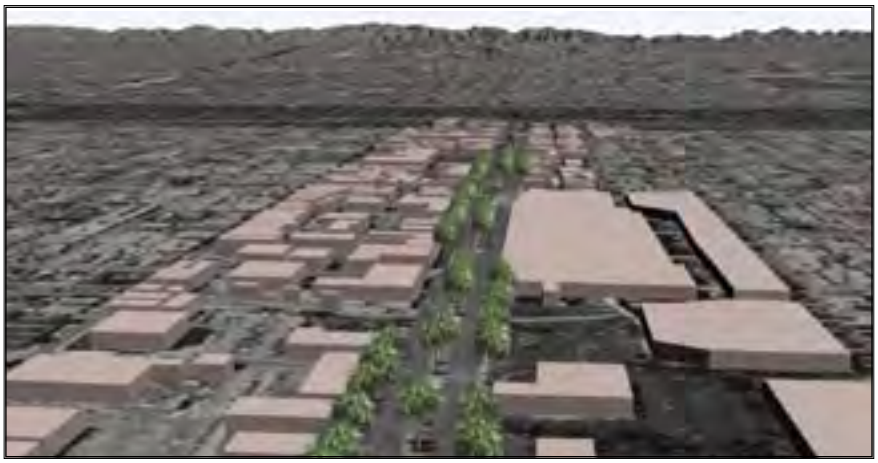
POSSIBLE PILOT PROJECTS

Below is an initial list of possible pilot projects for implementing the vision.

- Gold Line Extension
- Exposition Line
- Valley Bus Way
- Maglev IOS
- San Jacinto Line
- Highway 30
- 101 Corridor HOT lanes
- CenterLine
- North Los Angeles County to the High Desert
- Other corridors with significant transportation and land use interaction

For each of the corridor pilot projects, the parties involved should engage in a full land use and transportation study. Strategies would include

- Combining land use and transportation strategies, rather than holding land use constant and changing transportation investments on a case-by-case basis.
- Using scenario planning to investigate options and develop feasible strategies that allow the region to "plan without boundaries."
- Using a wide-ranging public awareness program, including workshops or charrettes to engage the public in developing scenarios and strategies.
- Developing a set of measurable criteria to evaluate different scenarios and using a consistent set of criteria to select a final strategy.
- Using this process to help define options for developing the Environmental Impact Review.



Work with county transportation commissions to help coordinate inter-regional transit travel

A recurring theme at the many Compass workshops was the difficulty many people face in using transit to travel across the region. Concerns ranged from varying fares, to headways, and most importantly gaps in service that seem to correspond to jurisdictional boundaries. The needs of residents of the Southland transcend city and county borders. These boundaries must be removed from the thought process in planning for seamless travel.

PRINCIPLE #2

*Foster **livability** in all communities*



Walkable communities help improve livability and promote a mix of uses.

- Promote infill development and redevelopment to revitalize existing communities
- Promote developments that provide a mix of uses
- Promote "people-scaled," pedestrian-friendly communities
- Support the preservation of stable, single-family neighborhoods

The Regional Housing Needs Assessment process should be coordinated with visioning and planning at the regional level to identify areas of common interest and mutual benefit

The Compass process should be used as a means of collaboration and compromise to revise the RHNA process to one that is less adversarial and more creative. As creator of the RTP, SCAG has the ability to bring about this change by facilitating a common understanding among local jurisdictions – one based on the demographic needs of the region. Building the process on top of a commonly held vision of the future can help focus the discussions on both regional and local needs while bringing consistency to the regional planning effort.

Endow the sub-regions with greater responsibility in conducting their own visioning

Use sub-regional efforts to guide the shape of regional plans and recognize that sub-regional, county and local collaboration is the cornerstone of implementation. SCAG's role would be to facilitate sub-regional efforts and help coordinate inter-jurisdictional planning projects. Building the Growth Vision from local planning efforts resonated well with the sub-regions and local jurisdictions that participated in Compass workshops, policy dialogues and scenario review sessions.

Establish elements of the Growth Vision scenario, such as centers and corridors and a well-defined open space system, with clear objectives for development, preservation and social equity

Agencies may use these objectives in providing assistance to developers who want to further city goals with their projects. SCAG can work to ensure that the Vision and its concept map evolve to recognize the local implementation efforts and priorities that are discovered during the process.

Offer planning assistance and cooperatively develop recommended model ordinances for those who wish to implement specific parts of the regional Vision

Model ordinances can make development that supports the vision the rule, rather than the exception. Through pilot projects, handbooks and partnerships, cities in the region have many resources at their fingertips to assist in planning and achieving the Vision. Research of pilot projects during the Compass project alone has shown that policies such as allowing for flexible building height standards and reductions in parking requirements for pedestrian-friendly areas can reduce costs by as much as 30 percent. Continued exploration and ongoing projects will provide the region with the tools necessary to properly use land use, specifically infill to enhance the transportation corridor efficiency.

PRINCIPLE #3

*Enable **prosperity** for all people*



A variety of housing types enables prosperity for all people.

- Provide a variety of housing types in each community to meet the housing needs of all income levels
- Support educational opportunities that promote balanced growth
- Ensure environmental justice regardless of race, ethnicity or income class
- Support local and state fiscal policies that encourage balanced growth
- Encourage civic engagement

Create a rich, comprehensive regional database for planning and economic development

SCAG should assemble and keep current a quality GIS inventory of: vacant and reuse opportunity sites, local and regional open space plans and information that will help companies find locations within the Southland near their desired employees. This data should be shared with jurisdictions and the development community. Such data sharing promotes jobs-housing balance, open space preservation and infill development and investment in areas that are largely developed.

Foster greater cooperation between business, government and community organizations through training in public-private partnerships

This effort opens the door to the creation of important partnerships with the development community, learning from them how policies and practices both help and hinder the creation of products that support the vision. These developers will benefit as they work with the cities and counties and will be able to act as ambassadors to their colleagues.

Accelerate employment balance throughout the region

The natural progression of growth in the Southland during the past several decades has been to initially develop an area as a place for people to live who have either been priced out of the market where they work or are willing to commute farther in exchange for other housing or neighborhood amenities. This of course leads to an imbalance of too many households versus available jobs in the area. In the years that follow, manufacturing and professional jobs often move to these areas in response to both land price and the availability of workers.

During the next 25 years freight coming into the Southland is expected to nearly triple – threatening further congestion. A goods movement strategy that addresses this tremendous growth can play a vital role in enabling employers to locate in these housing rich areas. It is therefore important when planning for the region's transit and highway corridors to also focus on logistics and goods movement. Southern California is multi-centric. Creating efficient access and goods movement allows these centers to develop in a balanced fashion. Being locations for people to live, they also have the basic elements for prosperous job centers.





Implement the techniques outlined in the 2004 Regional Transportation Plan's privately funded projects

Jobs for people in the middle class are not as available as they should be. State policies and changing demands on infrastructure from the increases in distribution are hindering the region's competitive advantage for manufacturing jobs. Addressing the infrastructure and location needs of the manufacturing and distribution sectors would allow more people to have access to these jobs. This would enable people in that cohort to more readily afford homes.

Discussion has been initiated at the state level about a manufacturing tax credit. SCAG could help increase economic security by using the Vision to create empowerment zones where employers would reap benefits for providing family wage jobs to people living locally. This can also be an assistance tool for areas that historically have been overlooked by new investment.

Engage a study to look at how public investment such as transit facilities increase land value and what options may exist to use newly created wealth to increase opportunities for others and create more transit-oriented developments

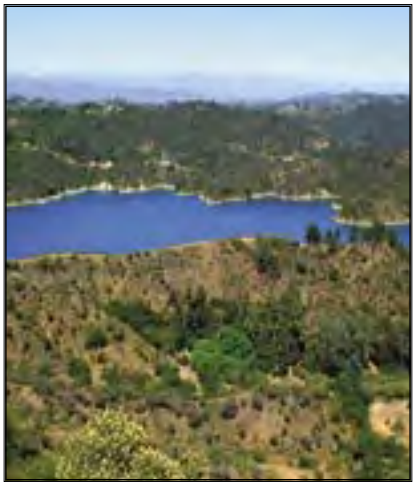
The increased value that comes with reinvestment in a specific area can often mean existing families are priced out of housing, or that it is not feasible for the market to produce the needed affordable housing. Cities are further trapped in that funds provided by the developers for city creation of affordable housing have diminishing purchase power with the success of the nearby developments. There may be avenues to explore in which the public could benefit from land value increases that occur because of new publicly-funded projects related to transit.



PRINCIPLE #4

*Promote **sustainability** for future generations*

- Preserve rural, agricultural, recreational and environmentally sensitive areas
- Focus development in urban centers and existing cities
- Develop strategies to accommodate growth that use resources efficiently, eliminate pollution, and significantly reduce waste
- Utilize "green" development techniques



Open space is integral to the health of communities.

Integrate the many open space and habitat plans under way throughout the region into an open space element for the Growth Vision

Much significant work in this arena has been completed or is under way throughout the region. The open space component of the Vision should be considered as important as urban centers and infrastructure. Through collaboration, SCAG should assemble the many planning efforts into a standardized inventory that can both inform the Vision and provide lessons to other jurisdictions interested in performing similar analysis. This green infrastructure should in no way hinder a jurisdiction's ability to accommodate needed housing or jobs. Instead, they should be rewarded for the extra effort of ensuring sustainability for the Southland. This inventory should be used to monitor sustainability and livability goals and help neighbor cities plan for open spaces in a coordinated fashion.

Offer training for elected leaders, planning officials, and the development community in green planning and design

As with planning for infill, handbooks, symposiums, and other education tools should be used to enable cities and counties to embrace the sustainable practices of green building. SCAG should act as a coordinating body to help the region determine a standard set of approaches. With SCAG helping to create these standards, the region's cities may face much less uncertainty at the state level as they work to implement the various techniques.

Identify or adopt a conflict resolution mechanism to assist with open space protection agreements already in place and work to enhance additional open space needs

SCAG can use its position as a regional leader to bring together the many interests that have a stake in protection or enhancement of open space. During regional planning activities, SCAG should factor in the need for preservation of open space and natural areas when determining growth projections and housing needs.



Cities and counties with a well-defined open space system or urban limit lines have a reputation for becoming desirable and expensive. Offer planning assistance and model ordinances that will help preserve the environment and enable inclusionary housing practices and housing choice

Cities throughout the region grapple with deciding how to appropriately address growth for their community while preserving their cherished open space and productive agricultural areas. Some cities and counties, for example, have adopted urban limit lines or growth boundaries. These tools can be very successful; however, they can also lead to unintended consequences. As a coordinating body, SCAG can help to share the best practices and lessons learned by cities that have employed these sprawl preventive measures. These tools can help ensure that the jurisdiction's goals are met and reduce the likelihood of problems arising. Cities across the country that have employed these preservation techniques have had to learn a few hard lessons before finally tuning the regulations to work as intended. By helping with these lessons learned, SCAG can help jurisdictions achieve their goals without facing the pitfalls that invariably come from trying something for the first time.

Calculate demand for water based on the Growth Vision projections and distribution

SCAG can bring the cities, counties and water providers together to better coordinate the availability of water with projections and capacity calculations for housing and jobs throughout the region.



SCAG Compass Regional Vision: Within Our Reach



Public spaces will continue to be enjoyed by future generations.

Fifty years ago, Southern California had a common vision of its future. The vision was based on a common set of values as well as the strategies to achieve that vision. In today's world, the problems and their solutions are much more complex. However, there are many efforts under way in the Southland to craft a viable solution that matches the values of the region today. Compass is only one such effort. All are working to identify solutions that will help the Southern California region move into the future with confidence and optimism.

While the solutions remain elusive, it is clear that there are common values in this region that can form the basis of a common vision. Most people want a plan for the future that adheres to the principles adopted as the SCAG Growth Visioning principles.

SCAG cannot implement this Growth Vision alone. It will require the efforts and collaboration of hundreds of groups and thousands of leaders. However, SCAG brings a unique, region-wide perspective, as well as the energy and the vision needed to solve regional problems that require a large-scale view. Conversations with residents of the region reveal what many other groups have found – some anxiety and some dissatisfaction, but more importantly, a common core of support for ideas that will actually work.



The sense of place in many areas will strengthened.

The key to success now is the most difficult – discovering the specific actions Southern Californians can agree on to make the region of their dreams come true. To this end, SCAG, its member governments, and the hundreds of other organizations must contribute and work together in a true regional partnership. SCAG stands ready to contribute to this important effort.



Southern Californians will maintain a high quality of life.

Appendix I: Workshop Development Types



URBAN CENTER







The Urban Center development type incorporates households, offices, retail, and civic uses into a walkable and mixed-use environment. This type is modeled on downtown Los Angeles and serves as a commercial destination and employment center. The Urban Center development type also contains a diverse array of multi-family homes and townhouses. The building types range from mid-rise residential buildings to mixed residential towers and commercial high-rise buildings. Interconnected street networks and a variety of amenities within walking distance make Urban Centers accessible by automobile, transit, bicycle and foot. Civic and open spaces lend to the walkability and diversity of uses in Urban Centers, they are lively throughout the day and evening. This development type is especially apt for infill in downtown Los Angeles.

Urban Center	
Acres per Chip	160
Households per Acre	110
Employees per Acre	320



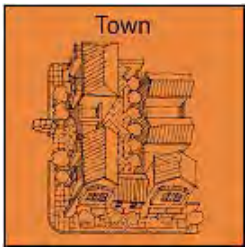
CITY

The City development type incorporates a diverse mix of residential and employment uses, though at a lower density than the Urban Center. The City still serves as a significant source of employment. Like Pasadena or Santa Monica, this development type has a walkable center at its core. It may require structured parking and is accessible via multiple modes of transportation. Cities include a greater proportion and diversity of housing than downtowns, including multi-family homes, single-family homes and townhouses.





City	
Acres per Chip	640
Households per Acre	35
Employees per Acre	70



TOWN





As with the Urban Center and City, Towns are also walkable because of their mix of uses and interconnected street network, but at a lower density. Towns primarily function as service destinations with a central Main Street rather than centers of employment. Surface parking lots provide parking in Towns. Buildings on the Main Street typically stand two to four stories tall and include townhouses or apartments above storefronts. Most homes in a Town are detached single-family residences that are oriented towards the street, commercial areas and open space.

Town	
Acres per Chip	640
Households per Acre	20
Employees per Acre	20



HIGH-INTENSITY CORRIDOR

Similar to an Urban Center, High Intensity Corridors incorporate households, offices, and retail uses at a high density. However, High Intensity Corridors are stretched along one central Boulevard without the street connectivity and accessibility experienced in Urban Cores. Considered a high employment area, building types range from mid-rise residential to office high-rise tower, with less mixed-use than in other high-density development types. Wilshire Boulevard is considered a High Intensity Corridor.

High Intensity Corridor	
Acres per Chip	480
Households per Acre	65
Employees per Acre	95







Medium Intensity Corridor

MEDIUM-INTENSITY CORRIDOR



Like a High-Intensity Corridor, Medium-Intensity Corridors are also stretched along one single Boulevard but experience less dense building types. Households, offices and retail uses are accommodated with a few high-rise towers but are primarily comprised of mid-rise building types. Pedestrian access is limited with transit generally only available along the Boulevard. The Medium-Intensity development type is patterned after Ventura and Sepulveda Boulevard.



Medium Intensity Corridor	
Acres per Chip	480
Households per Acre	25
Employees per Acre	30





EDGE CITY

An Edge City, such as Warner Center, is a central location for offices, retail uses and multi-family housing. Building types range from high-rise office towers to low to mid-rise residential. As an auto-oriented environment, surface parking lots are plentiful and transit options limited. Retail centers are located in strip malls with minimal walkability. Multi-family residential units are located on streets that lack connectivity and promote auto usage.

Edge City	
Acres per Chip	640
Households per Acre	30
Employees per Acre	100









ACTIVITY CENTER





An Activity Center is an agglomeration of large-scale retail buildings, offices and multi-family housing such as South Coast Plaza and Ontario Mills. The Activity Center development type contains a relatively dense mix of uses, comparable to a City. But, unlike the City, it is not pedestrian-friendly. Land uses are separated from each other by parking areas, freeways or arterials. Activity Centers are usually positioned at intersections of highways or arterials, sometimes along major transit corridors.

Activity Center	
Acres per Chip	640
Households per Acre	15
Employees per Acre	15





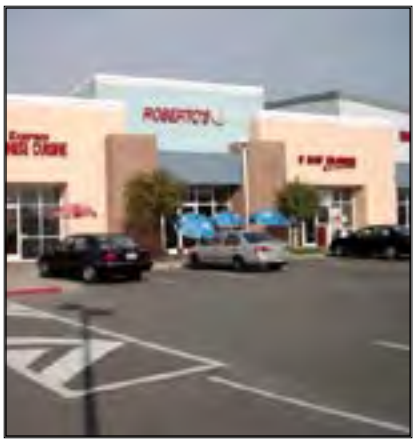
HIGHWAY COMMERCIAL

This type is modeled after highway-oriented development. Like the Activity Center, it contains many residential units. But rather than being agglomerated at a highway intersection, Highway Commercial development takes a linear form along both sides of the highway. Connections in this development type consist mostly of highways and frontage roads. Housing is either in the form of multi-family apartments or residential subdivisions; both are typically auto-oriented.



Highway Commercial	
Acres per Chip	480
Households per Acre	10
Employees per Acre	10







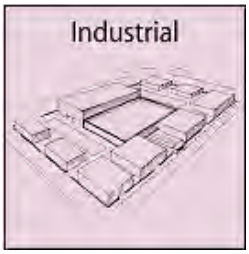
EMPLOYMENT DISTRICT





Often considered to be an Office Park, Employment Districts are comprised of low to medium density office buildings surrounding by surface parking. Generally located near highways for easy auto-access, transit and walking options are limited. Employment districts lack residential or retail uses, thus increasing the number of auto trips needed.

Employment District	
Acres per Chip	640
Households per Acre	0
Employees per Acre	40



INDUSTRIAL

The Industrial development type is made up of a mix of low and medium density industrial buildings. They often consist of industrial yards and campuses separate from other uses due to the nature of industrial use. This development type is often near highways and accessed via automobiles with large surface parking for autos and trucks. Walking and transit options are severely limited.

Industrial	
Acres per Chip	640
Households per Acre	0
Employees per Acre	20









CITY NEIGHBORHOOD

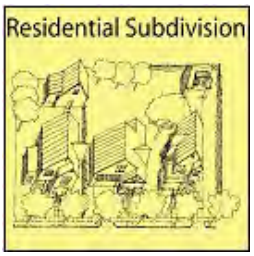




City Neighborhoods are comprised of mid to low-rise multi-family, townhouses and small lot single-family dwellings. With the same number of residential units per acre as the Town development type, City Neighborhoods are medium-high density residential areas with a small number of service or office jobs. Street connectivity is favorable, allowing for a high degree of walkabililty and transit options.

City Neighborhood	
Acres per Chip	640
Households per Acre	20
Employees per Acre	6





RESIDENTIAL SUBDIVISION

Residential Subdivisions are comprised of single-family, detached homes and duplexes. Street networks are typical of post -World War II suburbs. Residential Subdivisions are designed for automobile travel. Due to the extensive use of cul-de-sacs, street connectivity and walkability are generally low. Examples include Santa Clarita and parts of San Bernardino and Riverside Counties.

Residential Subdivision	
Acres per Chip	640
Households per Acre	10
Employees per Acre	0







LARGE-LOT SUBDIVISION



Large-Lot Subdivisions consist entirely of single-family, detached homes. This development type can be found in Orange and Ventura Counties as well as outlining areas. Large-Lot Subdivisions are typically isolated or far from employment and retail services. Averaging two units per acre, this development type is characterized by very large residences without sidewalks. Street connectivity is low and travel to and from the Large-Lot Subdivision development type is usually by automobile.

Large-Lot Subdivision	
Acres per Chip	5,760
Households per Acre	2
Employees per Acre	0







RURAL HOUSING

The Rural Housing development type consists of estate lots that amount to one unit per five acres. Rural Housing development provides residents with access to rural areas while being within reach of urban amenities. This development type consumes greater amounts of open space and tends to be farther from employment than Large-Lot Subdivisions. Street connectivity is also generally low among estate lots.

Rural Housing	
Acres per Chip	5,760
Households per Acre	0.2
Employees per Acre	0







Appendix II: Scenario Allocation Development Types

Place3s methodology

Planning for Community Energy, Economic and Environmental Sustainability (Place3s) is a GIS ArcView3.2 extension used to simulate land-use patterns for scenarios. A geographic representation of each scenario is created in Place3s by locating different development types on vacant and developed land while limiting development in environmentally constrained areas. The geographic representation of development types for each scenario is the foundation for calculating benchmarks. The benchmarks are then used to evaluate the viability of each growth scenario.

Similar to the workshop development type chip sets, the series of development types for Place3s are created from a set of building types that represent residential, employment and mixed-use alternatives. Each building type has an associated employee and household density. The households and employees per acre for each building type is multiplied by the percentage each building type represents within the development type to determine the employees and households per acre for each development type.

Because the development type densities are based on vacant land, a set of standards is used to calculate the propensity of a certain development type to redevelop. Areas such as Downtown are more likely to redevelop than Towns, while Centers are more likely to redevelop than Residential land. The redevelopment percent is then multiplied by the employees and households per acre for vacant land to obtain a redevelopment density.

	Vacant Land		Redevelopment		
	Emp/acre	HH/acre	Emp/acre	HH/acre	Redev %
Downtown Center	367.88	30.64	91.97	7.66	25%
Downtown Residential	46.03	119.19	9.21	23.84	20%
City Center	54.67	15.63	10.93	3.13	20%
City Residential	8.95	31.98	1.34	4.80	15%
Town Center	17.14	11.24	2.57	1.69	15%
Town Residential	3.53	13.79	0.35	1.38	10%
City Neighborhood	0.53	9.07	0.03	0.45	5%
Residential Suburb	0.22	1.25	-	-	0%
Large Lot Residential	-	0.25	-	-	0%
Rural Cluster	-	0.41	-	-	0%
Activity Center	12.66	10.27	-	-	0%
Transit Station	12.70	20.29	3.81	6.09	30%
Transit Corridor	7.06	16.91	1.41	3.38	20%
Main Street	8.24	12.99	1.65	2.60	20%
Office Park	39.69	-	-	-	0%
Industrial	14.86	-	-	-	0%
Highway Commercial	6.62	5.85	-	-	0%

Building Type Proportions

Development Types	Mixed-Use				Residential									
	DT Mixed	DT Residential Tower	City Center Mixed Use	Town Center Mixed Use	Apartment / Condo High	Apartment / Condo Med	Apartment / Condo Low	Townhouse	Residential Small Lot	Residential Medium Lot	Residential Medium+ Lot	Residential Large Lot	Rural Housing	Rural Cluster
Downtown Center	10%	15%												
Downtown Residential	5%	65%	10%		10%	10%								
City Center			50%	25%		10%	10%							
City Residential		10%	5%	5%	10%	5%	15%	15%	35%					
Town Center				50%			30%	20%						
Town Residential				10%		10%	15%	45%	20%					
City Neighborhood							10%	25%	35%	25%	0%			
Residential Suburb											38%	60%		
Large Lot Residential												10%	90%	
Rural Cluster												30%	0%	70%
Activity Center						20%	25%							
Transit Station			10%	15%	10%	15%	20%	25%	5%					
Transit Corridor			5%	10%	5%	15%	20%	30%	10%	5%				
Main Street				15%		10%	25%	35%	5%					
Office Park														
Industrial														
Highway Commercial							15%	10%	20%					

Development Types	Employment						
	DT Office-HI	Office Park-Towers	Regional Mall	Office Park	Light Industrial	Heavy Industrial	Strip Commercial
Downtown Center	40%	35%					
Downtown Residential							
City Center		5%					
City Residential							
Town Center							
Town Residential							
City Neighborhood							5%
Residential Suburb							2%
Large Lot Residential							
Rural Cluster							
Activity Center			30%	25%			
Transit Station							
Transit Corridor							
Main Street				10%			
Office Park		5%		95%			
Industrial					60%	40%	
Highway Commercial							55%

Appendix III: Benchmarks

AVERAGE TRAVEL DISTANCE

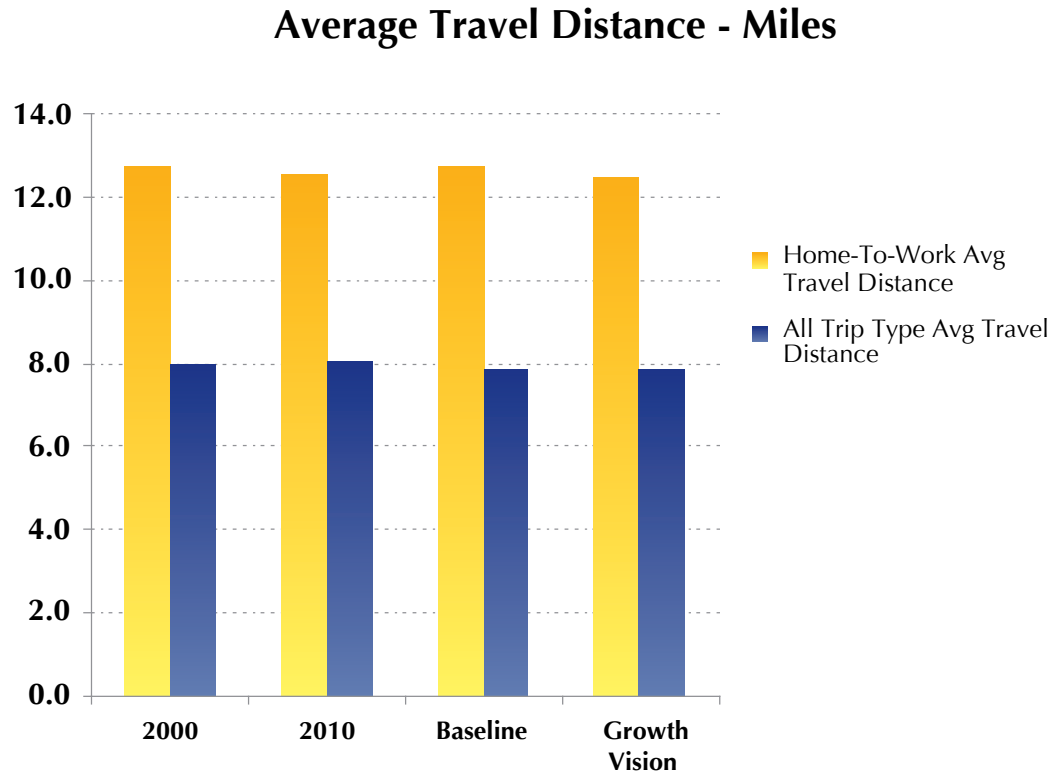
What does it mean?

The average travel distance is a measure of how well the transportation network in each scenario is performing in conjunction with the placement of land uses. Travel distance is dependent on the locations of jobs, housing and services, which in turn influence the total distance traveled. If the jobs and housing balance is not favorable, distance traveled for each alternative increases. However, if jobs and housing are within close proximity, then the home-to-work average distance decreases.

How was it measured?

The demographic, travel behavior, and transport infrastructure data for each scenario are used as model input to calculate the travel distance for each type of trip based on the transportation network. The trip types are summed to determine average distance traveled by category.

Average Travel Distance - Miles				
	2000	2010	Baseline	Growth Vision
Home-To-Work Avg Travel Distance	12.72	12.57	12.77	12.50
All Trip Type Avg Travel Distance	8.00	8.04	7.85	7.88



AVERAGE TRAVEL TIME

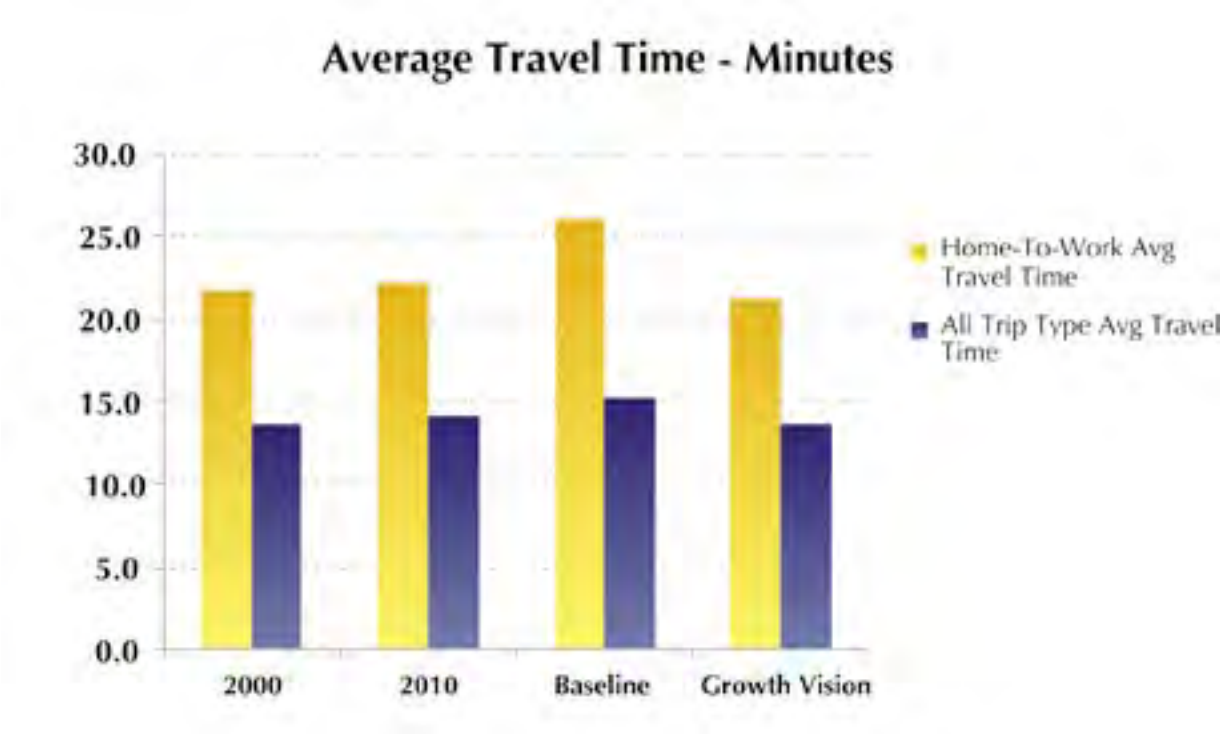
What does it mean?

The average travel time is a measure of how well the transportation network in each scenario is performing as well as a measure of the effectiveness of designated land uses for each scenario. Travel time is dependent on the locations of jobs, housing, and services that influence the total distance traveled; shorter distances require less time spent for each trip.

How was it measured?

For each link in the transportation network, the model generates the amount of time it takes to travel that link given the average road conditions in each scenario. The demographic, travel behavior, and transport infrastructure data for each scenario are used as model input to calculate the travel time based on the transportation network.

Average Travel Time - Minutes				
	2000	2010	Baseline	Growth Vision
Home-To-Work Avg Travel Time	21.6	22.1	26.1	21.2
All Trip Type Avg Travel Time	13.6	14.0	15.2	13.5



DAILY TRANSIT BOARDINGS

What does it mean?

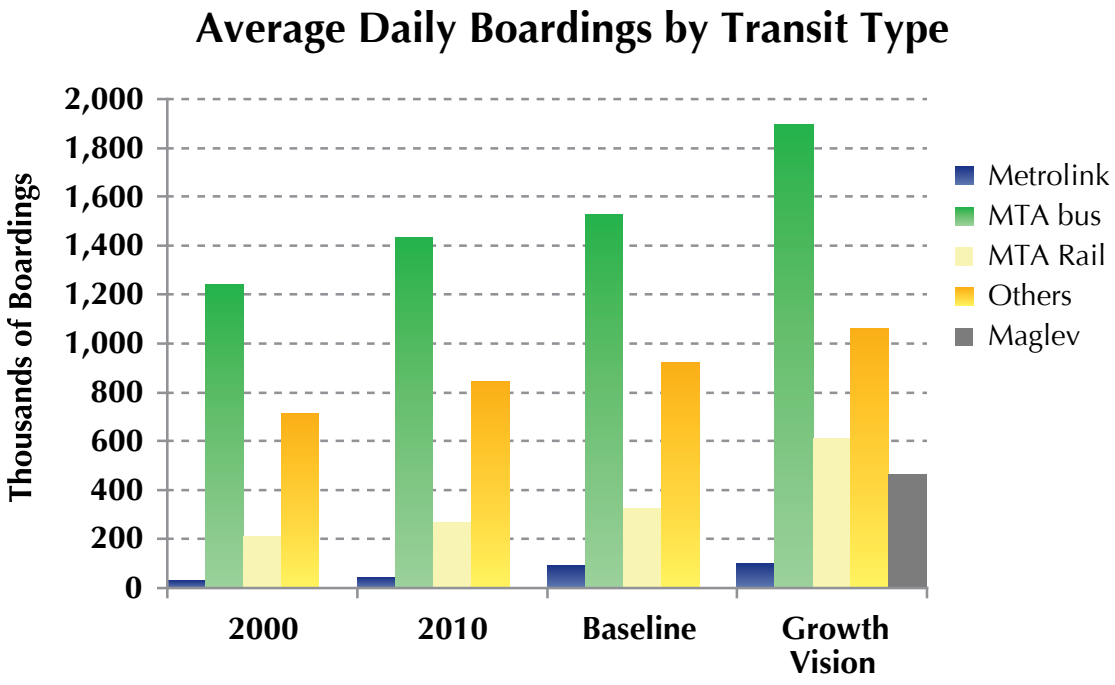
Daily transit boardings is a measure of the number of trips made on an average day by each type of transit service. The higher the transit ridership, the more capacity the roads will have to carry people and goods. Transit trips consolidate many travelers to a single vehicle with specific capacities depending on each transit mode.

How was it measured?

The demographic, travel behavior, and transport infrastructure data for each scenario are used as model input. The travel demand model uses these inputs, including the service characteristics of each mode, to calculate a probability of a trip choosing each type of transit. Choices are summed to determine the total probability of use by mode.

Average Daily Transit Boardings

	2000	2010	Baseline	Growth Vision
Metrolink	32,615	45,315	92,904	98,258
MTA Bus	1,241,561	1,429,990	1,525,716	1,893,678
MTA Rail	211,327	266,275	325,698	608,896
Others	710,459	844,675	922,003	1,062,540
Maglev	n/a	n/a	n/a	465,646
TOTAL	2,195,962	2,586,255	2,866,321	4,129,018



EMPLOYMENT MIX & DISTRIBUTION

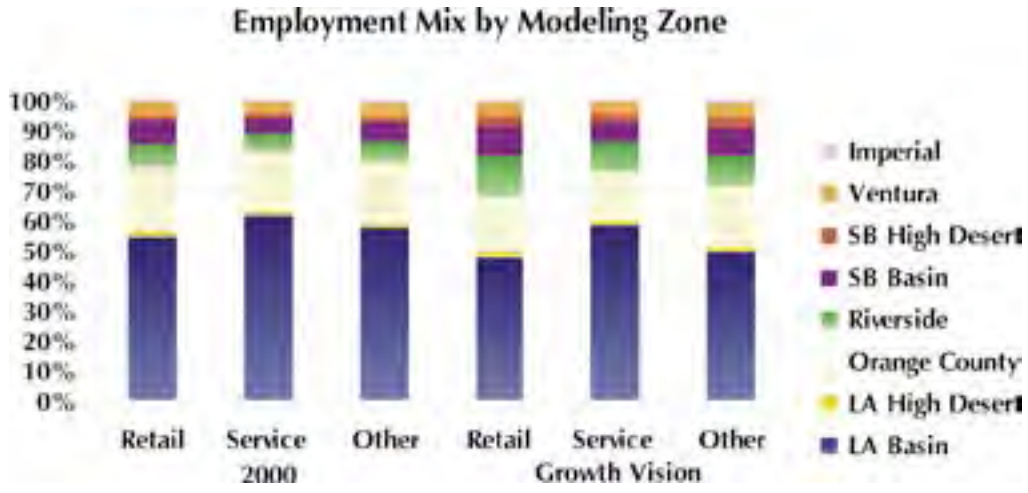
What does it mean?

The mix and distribution of employment types—retail, service, and other—is an indicator of the land use pattern of an area, and can have great effect on the efficiency of the transportation system. For example, an area with high service and retail employment may serve shopping, entertainment, and recreational trips, while an area with a concentration of other type employment may only serve commute trips. Transit use as well as trip-chaining—the term for combining many trips needs into one outing—work best when there is a mix of employment types concentrated in one area.

How was it measured?

The forecasting department at SCAG provided control totals for the number of retail, service, and other employees in each subregion. For the Growth Vision alternative, these employment numbers were then distributed across each modeling zone by association with development types.

	Retail Employees		Service Employees		Other Employees		Total Employees
2000	1,256,917	17%	2,751,322	37%	3,456,683	46%	7,464,922
2010	1,487,324	17%	3,492,229	40%	3,773,413	43%	8,752,966
Baseline	1,781,332	18%	4,057,286	40%	4,295,510	42%	10,134,128
Growth Vision	1,856,491	18%	4,203,640	40%	4,442,696	42%	10,502,827
2000-2010	230,407	18%	740,907	58%	316,731	25%	1,288,045
Baseline Increment	294,008	21%	565,057	41%	522,097	38%	1,381,162
Growth Vision Inc.	369,167	21%	711,411	41%	669,283	38%	1,749,861



HOUSING MIX

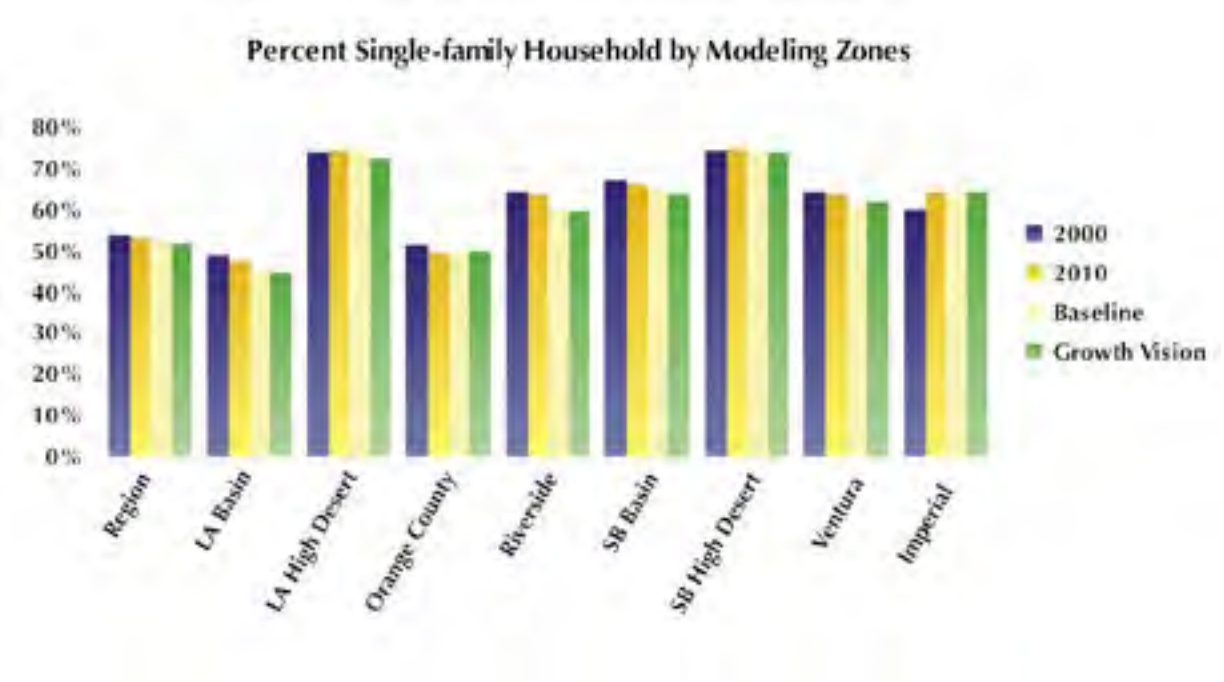
What does it mean?

Housing mix indicates whether the housing in an area is single-family or multi-family. This measures the variety of housing types provided, as well as the density typical of new housing types. The 2000 and 2010 projection data allow for comparison.

How was it measured?

Each scenario contains a different mix of development types. Each development type is defined as a certain mix of building types. Therefore, each development type contains a certain mix of single-family homes and multi-family homes. The number of acres of each development type in each scenario were multiplied by the single-family and multi-family percentages in each development type to come up with the number of single-family and multi-family households in each scenario.

Scenario	Single-family Households		Multi-family Households	
2000	2,898,175	54%	2,487,372	46%
2010	3,219,676	53%	2,836,204	47%
Baseline	3,895,169	52%	3,558,562	48%
Growth Vision	3,935,985	52%	3,701,470	48%
2000-2010	369,101	51%	348,831	49%
Baseline Increment	675,493	48%	722,358	52%
Growth Vision Increment	716,309	45%	865,266	55%



NEW DEVELOPMENT OCCURRING THROUGH INFILL DEVELOPMENT OR REDEVELOPMENT

What does it mean?

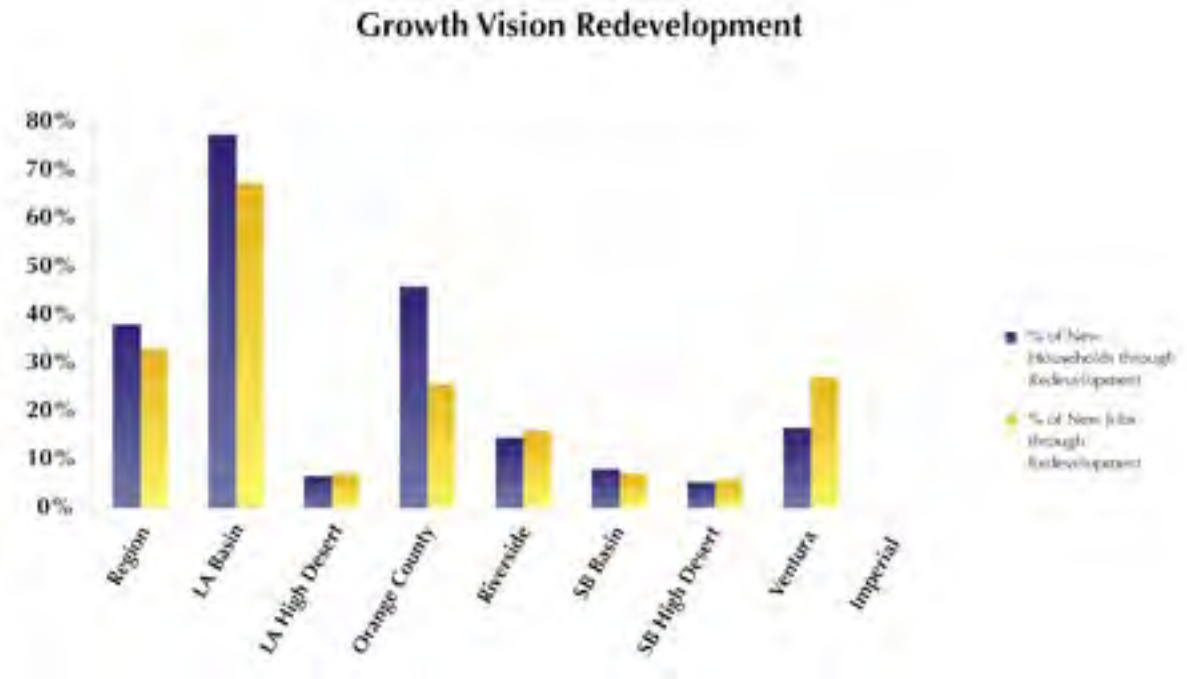
Infill development or redevelopment indicates the extent to which a city is renewed on an ongoing basis. It indicates that older parts of the city are attracting new housing and investment. High percentages of infill development indicate that a larger proportion of growth is occurring where development has already occurred before, through recycling of older buildings.

How was it measured?

For each scenario, a raster format map is made showing new development by development type. A raster map with the location of vacant land and one with developed land are also made, and the grid cells of each development type that fall on the vacant land can be summarized separately from those that fall on developed land. The number of redeveloped acres of each development type is multiplied by the number of households and employees per redeveloped acre to get new households and employees on developed land.

Growth Vision Redevelopment

	% of New Households through Redevelopment	% of New Jobs through Redevelopment
Region	38%	33%
LA Basin	77%	67%
LA High Desert	7%	7%
Orange County	46%	26%
Riverside	15%	16%
SB Basin	8%	7%
SB High Desert	5%	6%
Ventura	17%	27%
Imperial	0%	0%



JOBS-HOUSING BALANCE

What does it mean?

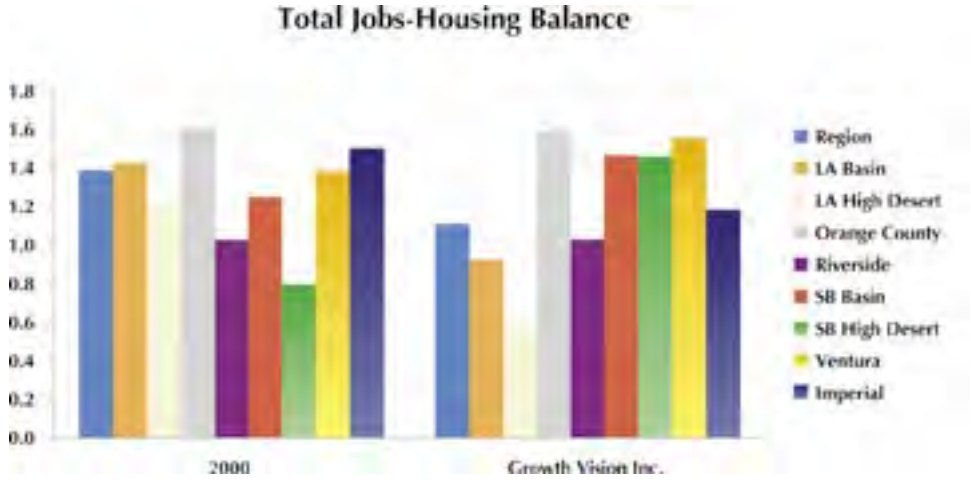
The ratio of jobs to households in each modeling zone can be an important indicator of the health of a region. If there exists a large mismatch between employment and housing in one or more modeling zones, then significant incommuting and outcommuting will occur, putting pressure on the transportation system.

How was it measured?

For the Growth Vision alternative, a raster format map is created that shows the location of the various development types that comprise the scenario. Each development type represents a certain number of households and employees per grid cell. From the number of grid cells of each development type, the number of households and employees can be calculated for each modeling zone. The number of employees are divided by households to get jobs-housing balance. The 2000, 2010, and Baseline data are obtained at the TAZ level from the forecasters at SCAG and then summarized to the model zone level.

Jobs-Housing Balance

	Region	LA Basin	LA High Desert	Orange County	Riverside	SB Basin	SB High Desert	Ventura	Imperial
2000	1.39	1.42	1.21	1.61	1.02	1.25	0.80	1.38	1.50
2010	1.45	1.49	1.03	1.74	1.05	1.38	0.91	1.36	1.40
Baseline	1.36	1.39	0.80	1.75	1.00	1.40	1.00	1.39	1.33
Growth Vision	1.38	1.40	0.86	1.71	1.04	1.41	1.11	1.39	1.33
2000-2010	1.92	2.36	0.58	3.13	1.14	2.29	1.42	1.25	1.05
Baseline Increment	0.99	0.83	0.42	1.84	0.90	1.45	1.17	1.52	1.18
Growth Vision Inc.	1.11	0.92	0.58	1.59	1.03	1.47	1.46	1.56	1.18



MODE SHARE

What does it mean?

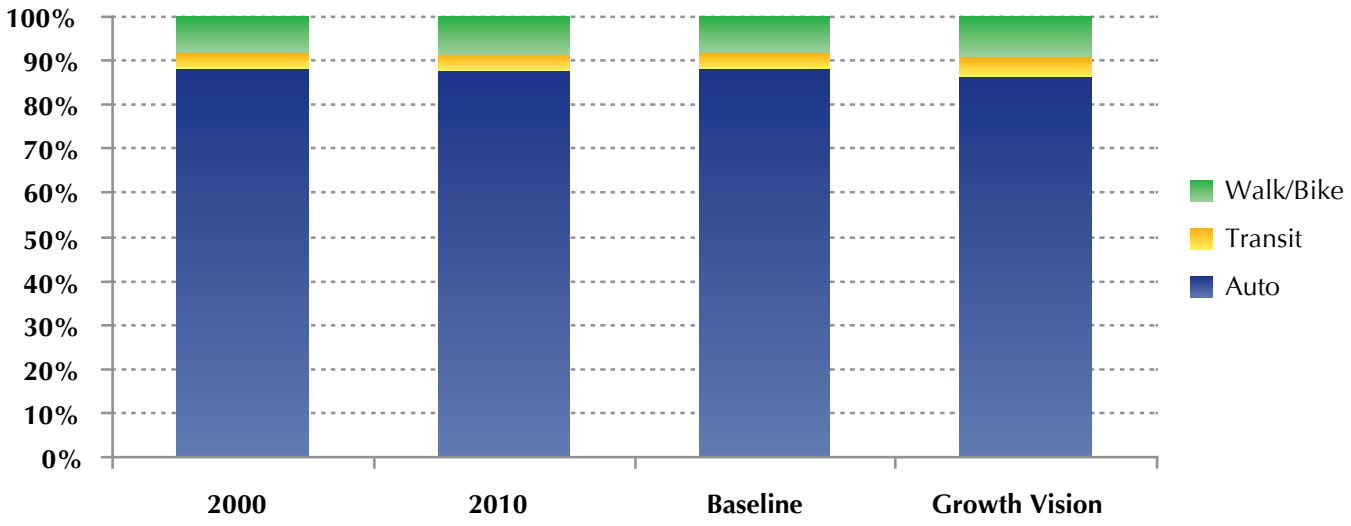
The mode share is a measure of the percent of trips made on an average day that are made by the various modes—walking, transit, and auto. Trips may originate from home, work, university, school or other. Even small changes in the share of trips made by automobile can make a big difference in congestion levels for those who are driving, especially in areas of congested corridors.

How was it measured?

The demographic, travel behavior, and transport infrastructure data for each scenario are used as model input. The travel demand model uses these inputs, including the service characteristics of each mode, to calculate a probability of a trip choosing each mode. Choices are summed to determine the total probability of use by mode as well as categorized by the home base and trip destination.

TOTAL Person Trips Mode Choice				
	2000	2010	Baseline	Growth Vision
Drive Alone	26,461,571	29,464,117	35,710,642	35,406,343
% Person Trips	48.0	47.3	47.7	46.7
Carpool	22,206,444	25,265,296	30,550,236	30,227,403
% Person Trips	40.2	40.5	40.8	39.9
Transit	1,185,606	1,509,972	1,507,345	2,301,119
% Person Trips	2.1	2.4	2.0	3.0
School Bus	736,367	732,267	899,170	876,214
% Person Trips	1.3	1.2	1.2	1.2
Non Motorized	4,591,408	5,386,262	6,255,318	6,940,129
% Person Trips	8.3	8.6	8.3	9.2

Mode Choice Distribution



VEHICLE HOURS DELAYED

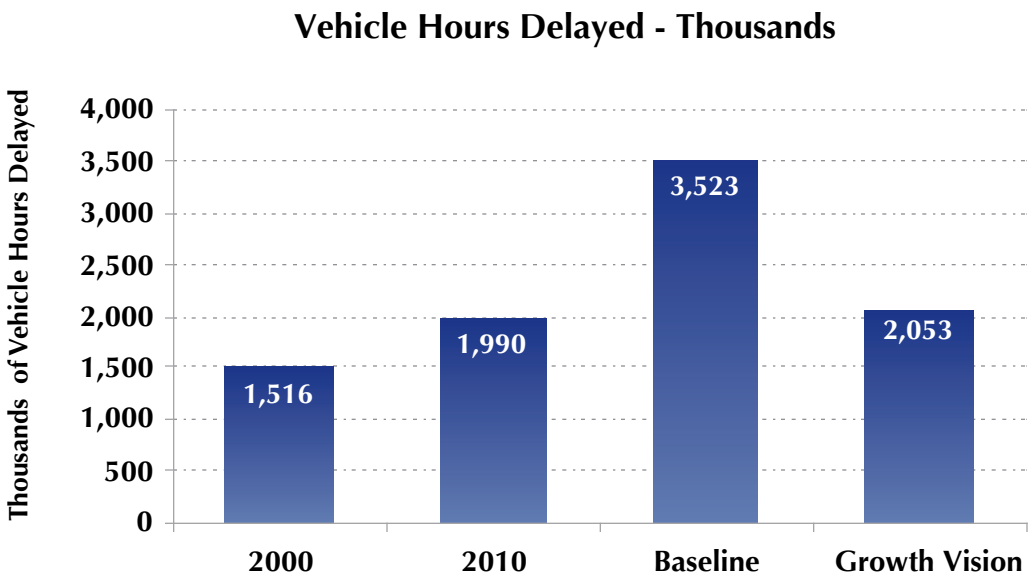
What does it mean?

The vehicle hours delayed is the amount of time travelers spend in congestion getting to their destinations over and above the amount of time it would take traveling in uncongested conditions. This measure reflects spatial relationships between residence and employment or other destinations as well as the efficiency of the road and transit network. The more hours in delay, the less time is allowed for work, recreation and other activities. Lower vehicle hours of delay reflects more efficient transportation networks and transit alternatives.

How was it measured?

The traffic speeds on each road network link are calculated using travel demand modeling software. The demographic, travel behavior, and transport infrastructure data for each scenario are used as model input. Congested link speed values are divided by link length to determine the link travel time. Subtract the uncongested link travel time to determine the amount of time per link caused by delays. The sum of these links is the total vehicle hours of delay for the region.

Vehicle Hours Delayed	
2000	1,516,109
2010	1,989,824
Baseline	3,523,369
Growth Vision	2,053,128



VEHICLE HOURS TRAVELED

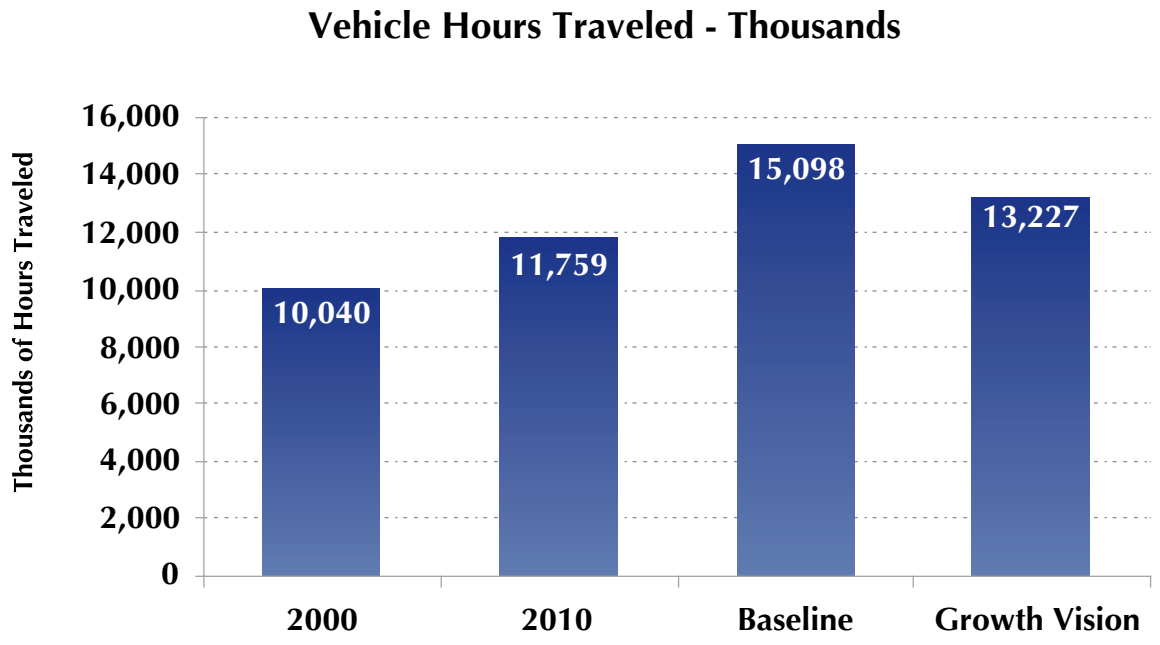
What does it mean?

Vehicle Hours Traveled (VHT) is the total hours of travel for cars or trucks per year for the total region. This measure reflects spatial relationships between residences and employment or other destinations as well as the efficiency of the transportation network and resulting air quality. The more hours spent traveling, the less time is allowed for work, recreation and other activities, and the higher the environmental impacts. Lower vehicle hours traveled reflects additional trips by non-auto modes as well as trips eliminated due to jobs, residences, and services within close proximity.

How was it measured?

The traffic speeds on each road network link are calculated using travel demand modeling software. The demographic, travel behavior, and transport infrastructure data for each scenario are used as model input. The link speed and length are used to determine the link travel time. The link travel time is multiplied by the number of vehicles per link to obtain the vehicle hours traveled.

Total Vehicle Hours Traveled	
2000	10,040,350
2010	11,759,250
Baseline	15,097,543
Growth Vision	13,227,120



VEHICLE MILES OF TRAVEL PER CAPITA

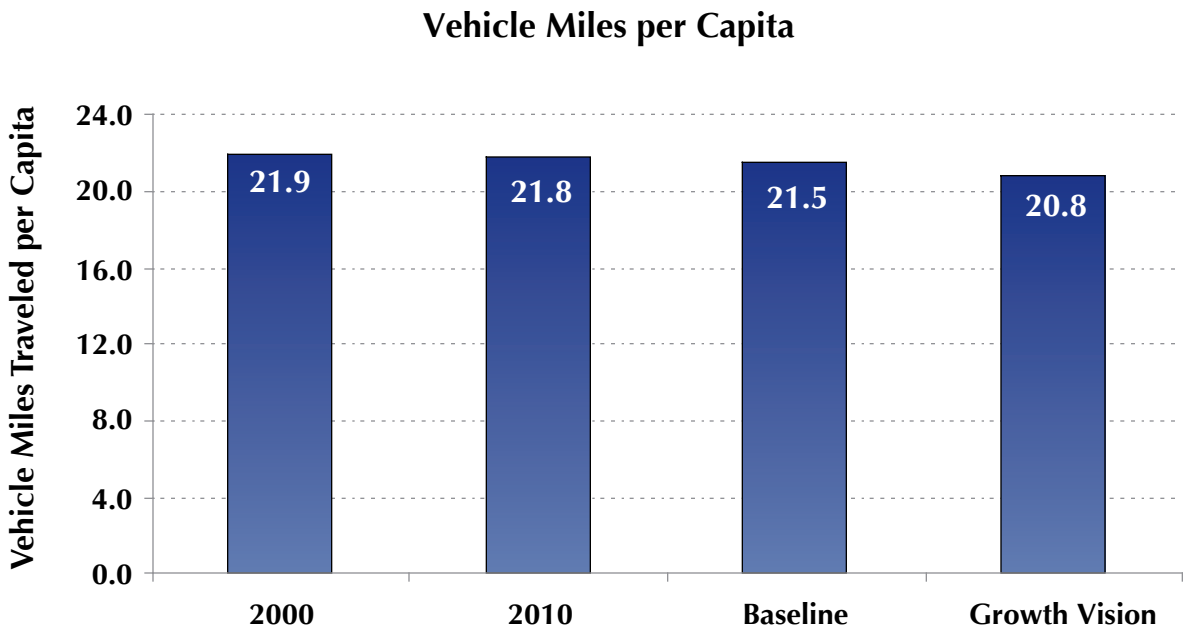
What does it mean?

Vehicle Miles Traveled (VMT) per person per day is the average distance traveled by a single person in a 24 hour period. This can reflect the spatial relationship between residence and employment or other destinations. Lower average VMT often reflects a better spatial match between residence and employment, while higher average VMT can indicate a spatial mismatch between place of residence and place of employment. VMT per person per day also will be lower when non-auto mode share (walk and transit) increases.

How was it measured?

The traffic volumes on each road network link are calculated using travel demand modeling software. The demographic, travel behavior, and transport infrastructure data for each scenario are used as model input. Each link volume is multiplied by the average vehicle occupancy rate in the region. This value is multiplied by the length of each link to determine the person-miles traveled on each network link. All these values are added and then divided by the total regional population to determine the average VMT per person per day.

Vehicle Miles of Travel per Capita	
2000	21.9
2010	21.8
Baseline	21.5
Growth Vision	20.8



Appendix IV: Southland Policy Dialogues

Report on the Southern California Compass Project

by

The California Center for Regional Leadership

May 2004

I. Why Southland Policy Dialogues?

The Southern California Compass Project is a collaborative regional planning process designed to develop a shared regional vision that will enable residents, local governments, developers, and other decision-makers to wisely manage projected growth across the region over the next twenty-five years. The Southern California Association of Governments and its Compass consultant team have produced a draft Growth Vision for the Southern California region through a variety of processes: development of growth principles, a survey of public opinion, development of growth "scenarios" through technical analysis, and public input through map-based workshops.

The Compass Project organized the Southland Policy Dialogues to enable local civic leaders to review and develop ideas for implementing the draft Growth Vision. The sessions aimed to achieve the following:

- Familiarize leaders across the region with the draft Growth Vision
- Help leaders to understand its implications for growth-related decisions within the Southland's "sub-regions"
- Identify barriers (regional and local) to effective implementation of the draft Growth Vision
- Develop and set priorities on key implementation strategies for SCAG, local governments, and other decision-makers



This report presents the key themes emerging from the Dialogues. Notes of the discussions were taken and revised by CCRL staff, and are available on the Compass website. They were sent to all participants, as was an online survey (results presented below).

II. What Did We Do?

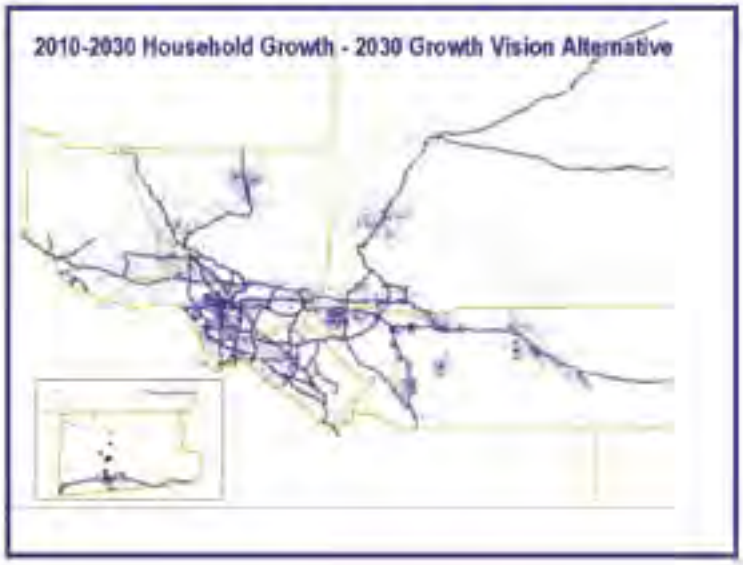
The California Center for Regional Leadership organized the Southland Policy Dialogues in five locations around the SCAG region, each focused on the unique issues of different sub-regions:

- Inland Empire – *March 10, 2004*
- San Fernando Valley, Ventura County, Arroyo Verdugo, North Los Angeles County (held in Van Nuys) – *March 11, 2004*
- South Bay Cities and Gateway Cities – *March 17, 2004*
- Orange County – *March 25, 2004*
- Downtown and Westside Los Angeles – *March 26, 2004*

The Compass Team also coordinated two sessions focused on the Latino community in Los Angeles and Orange County during April 2004.

In addition to the Dialogues noted above, a "pilot" Southland Policy Dialogue was convened on February 27, 2004, with the participation of the 48-member Leadership Southern California (LSC) Class XIV. This group provided invaluable feedback about the Dialogue presentation and discussion format. In addition, many LSC Class members and alumni attended the March Dialogue sessions.

Dialogue participants included local civic leaders, government officials, business owners, developers, neighborhood activists, and representatives of state agencies. In total, nearly 200 local community leaders participated in the five Dialogue sessions. Major sub-regional organizations, such as Councils of Government and other regional entities, were recruited to help plan and host these events. Summary reports and participant lists of each the sessions are attached to this report.



III. What Did We Learn?

1. About the Growth Vision and its implementation

The attached Summaries provide detail about responses to the draft Growth Vision and ideas for implementation. However, certain key themes emerged from Dialogue participants across the sub-regions, especially the following actions and issues:



- Encourage local and regional officials to approve, and then use as guidance, the basic principles and directions of the Growth Vision, such as preserving stable, existing single-family neighborhoods; directing new development, whenever possible, to existing employment or housing centers and to robust transportation corridors; promoting development around transit stations; protecting or expanding park and recreation facilities and open space; using land more efficiently wherever development occurs.



- Understand that there are differing opinions on: 1) where further development can be accommodated in existing communities ("it's a good idea, just not here – we're built out"); 2) which highways or arterials could accommodate additional traffic; and 3) what level of incentives it would take for more people to use transit over automobiles.
- Plan from the bottom up, and recognize and value the particular needs of sub-regions and localities. The Southland is composed of connected but profoundly diverse places, and planning should advance different models of development that fit these differences.
- For more integrated and cost-effective results, link regional and local land use planning and project approvals with transportation planning and investment.
- Foster collaborative planning across and among all public sector agencies making land-use and infrastructure investment decisions, including local governments but also transit agencies, school districts, and water districts.
- Promote "choice" (particularly housing and transportation options) through consumer and governmental incentives rather than top-down mandates.
- Appreciate that achievement of the Growth Vision will require broad public understanding and the alignment of thousands of individual decisions made in both the public and private sectors over many years. In that sense, achieving the Growth Vision is as much a "cultural" shift as it is a technical or policy challenge, and will require sustained public education and involvement.

"Local governments and regional agencies are not the only decision-makers that we have to take into account. Thousands of decision-makers will have to align with each other to achieve the Vision: consumers, developers, investors, business executives, employees, and countless others."

– Nick Kelman, Dialogue Moderator

- Make the state government a full partner in achieving the Growth Vision, through major reforms in fiscal policy, state agency planning decisions, and infrastructure investments.
- Protect the environment. The commitment to this value runs deeply and broadly across the region and among all kinds of groups.
- Create more effective means of influencing business-location decisions to achieve a better "jobs-housing balance."
- Understand the differences of opinion on the economics benefits and challenges of mixed-use development.
- Acknowledge that, on the critical issue of whether or not the projected population growth in the region (6 million additional people) will actually occur, there was common agreement that it is likely to happen (often expressed with expressions of resignation rather than anticipation). On the other hand, long-term questions about the "carrying capacity" of the region, particularly with respect to water supply, remain unresolved.
- Bring the education sector into the collaboration. It is crucial to align K-12 education and worker training, as well as school siting, with community needs.
- Promote viable infill development projects by removing the regulatory barriers and supporting local public officials who make tough decisions.

1. About the Compass Project and the Southland Policy Dialogues

- Participation in the Dialogues was somewhat diverse, but did not mirror the population, let alone the future demography of the SCAG region and its sub-regions. Two additional Dialogues, with Latino leaders, were organized to ensure an opportunity for feedback and participation from that community.
- Participants were earnest about becoming engaged in discussion about the future of the entire SCAG region. They do not entirely believe that the Growth Vision will have a large enough impact on growth patterns, but there was general appreciation of SCAG's efforts to reach out to their communities.
- The Dialogues were a largely a conversation about possible futures and not necessarily the technical aspects of planning and growth management, even among local elected officials.
- The Dialogues represented an opportunity to "close the circle" from the map-based workshops, though the overlap in participants between the two was minimal.
- The opportunities for oral presentation directly to the Growth Visioning Subcommittee of first, the design, and then the results, of the Dialogues ensured a strong linkage between the Committee process and the Dialogue outcomes.

3. Of interest to the Southern California Association of Governments

- Sub-regions matter, and local leaders were pleased that SCAG acknowledged them as important "building blocks" and valued their opinions.
- There was deep interest (especially among local elected officials and planners) about how the kind of Vision discussion engendered by the project can be continued, and expanded to the scale necessary to actually result in effective, sustained change.
- Participants expressed a desire for partnership and greater alignment of goals and decisions with the state government, but little knowledge or willingness to get directly involved in making that happen ("Let SCAG do it.").
- Very few participants (even many of the local elected officials) understand what leverage SCAG itself has (and does not have) to advance the Growth Vision.

> "If we are to accommodate the addition of a third more people in the state, water supply, quality, and systems will become an enormous problem."
>
> – Participant in the March 11 Southland Policy Dialogue

IV. Evaluation Results

1. Who participated in the Southland Policy Dialogues?

Dialogue participants were surveyed electronically two weeks following the events in an effort to help us better understand the sessions. Approximately 200 people attended the five Southland Policy Dialogues and were representative of a wide range of sectors, with business/building developers and regional/local government making up the greatest numbers of participants.

Participants in Southland Policy Dialogues by Sector
(according to survey responses)

Sector	%
Civic Group	20%
Building/Development	16%
Local/Regional Government	15%
Regional Council of Government	11%
State Government	8%
Manufacturing	8%
Other Business	8%
Other	8%
Labor	3%
Academic	3%
Finance	0%

2. Selected survey results

- In all five subregions, over 90% of survey respondents agreed that "the Dialogue increased my knowledge and understanding of the Growth Vision."
- By contrast, Downtown/Westside Los Angeles session data indicates that 50% of survey respondents were "dissatisfied" with the dialogue overall.
- In four of the five subregions, 75% of survey respondents agreed that "the Dialogue generated solutions to the successful implementation of the Growth Vision."

1. Written Feedback

Below is a sampling of the written comments provided by respondents to the survey:

...These are fundamentally regional issues that can only be addressed regionally.

There are some good elements in the Vision, but there is no clear road to implementation, and especially no identification where the funding will come from.

...Mobility will be key. Alternatives to the auto must be provided and linked in the region...Maybe this is a start to really address the great challenges ahead to maintain and improve the quality of life in the region.

Although the concepts are terrific and very important to the future of our region, the Vision must include practical/doable/locally supportable implementations for it to make a difference in the real world. This next step in SCAG's vision effort (implementation) is so very critical.

Livability is a key ingredient often overlooked when visioning.



4. Ranking of barriers

Survey respondents ranked a series of statements regarding barriers to successfully implementing the Growth Vision:

- The highest-ranking barrier in all five regions was an "under-informed general public, media and other key institutions."
- The second-highest-ranking barrier in the five regions was the recognition that "local control over land use decisions and competition between municipalities drives land use decisions."
- There was some variation among the remaining barriers, with "big, diverse, multiple jurisdictions in the region" and "state government historically slow to respond to changing land use needs at the regional level" ranking as third in the South Bay and Downtown/Westside LA, but fourth in the remaining subregions.

5. Ranking of policy recommendations



Survey respondents ranked a series of policy recommendations regarding the successful implementation of the Growth Vision. The following three strategies were rated as high priorities by participants at all of the Dialogues:

- *First priority*: Create a targeted public education campaign to increase awareness of the issues outlined in the Growth Vision
- *Second priority*: Develop a best practices database that shows progress towards implementation of the key principles outlined in the Growth Vision
- *Third priority*: Foster greater cooperation between business and government through public-private partnerships

The policy recommendations that received the most varied response, with no more than 30% of survey respondents supporting the strategy, were:

- Develop a legislative agenda for the region, supported by a range of local governments, to aid in the realization of the Growth Vision
- Work to make the regional economy of the Southland a place where businesses are supported by government policies

V. Questions for the Future

A. Would this project add value to the work of COGs and MPOs? How?

B. Is it possible to reach agreement on 5-10 statewide goals and 35-40 indicators that would measure progress against these goals?

C. Is it possible/valuable to present a few goals and measures unique to each sub-region?

D. Is the timeframe practical and are there sufficient resources to develop a quality product?

E. Who are the audiences for this report?

- Governor & Cabinet
- California Performance Review
- Legislature
- Regional leaders
- Media
- General Public
- Who else?



SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

The State of the Region 2007

MEASURING REGIONAL PROGRESS








SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

The State of the Region 2007

MEASURING REGIONAL PROGRESS

Principal Author:
PING CHANG, Program Manager

December 2007

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SCAG Region


Tulare
Inyo
NEVADA
Kern
Santa Barbara
San Bernardino
Ventura
Los Angeles
Orange
Riverside
San Diego
Imperial
ARIZONA
MEXICO
PACIFIC OCEAN
Barstow
Palmdale
Victorville
Santa Clarita
Pasadena
San Bernardino
Malibu
Torrance
Riverside
Palm Springs
Temecula
Needles
Blythe
Mexicali
San Diego
Tijuana
Port
Major Airport
Port of Entry
Interstate or State Highway
State Boundary
SCAG Region Boundary
County Boundary
N

Preface

The Southern California Association of Governments (SCAG) is the largest regional planning organization in the nation. The SCAG region, also referred to as Southern California in this report, includes six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 187 cities. Currently, with more than 18 million residents, the region has more population than any state in the nation with the exceptions of California, Texas and New York. It is also the 15th largest economy in the world.

The State of the Region 2007 tracks the progress in Southern California through the use of a set of interrelated performance indicators. The report compares the recent performance of our region with its own previous record and that of other large U.S. metropolitan regions. It also includes three essays on critical regional issues: the prospects of transit-oriented development, residents' opinions on quality of life, and the current public health crisis from air pollution. The report is intended to raise public awareness, focus policy deliberations and shape collective actions on vital issues affecting our shared future.

It should be noted that in addition to absolute improvements within our region, performance relative to other regions is equally important. Southern California competes with other metropolitan regions nationally and globally, and quality of life differentials have consequences for our region's competitiveness in attracting business investment and human capital.

As one of the top global gateway regions serving both the nation and the international community, the performance of Southern California impacts not only the quality of life of its own residents but also carries national and global implications. Hence, the region also needs to make contributions to address global issues such as climate change.

Assessing the region's performance is an integral component of the regional policy process. Findings from the State of the Region provide a basis for regional policy development and implementation. Since 2005, SCAG has been working collaboratively with local governments, stakeholders and partners in developing a new Regional Comprehensive Plan (RCP) and Regional Transportation Plan (RTP). The new RCP and RTP, with drafts currently under public review, contain goals and action plans to improve the region's performance for both current and future generations.

Preparation of the 2007 Report was guided by SCAG's Benchmarks Task Force, consisting of local elected officials and regional issue experts in Southern California. A companion piece, the State of the Region Report Card, includes grades for selected issue areas developed by the Benchmarks Task Force. The complete 2007 State of the Region Report, Report Card and the draft RCP and RTP have been posted on the SCAG website at www.scag.ca.gov.



Executive Summary

The State of the Region 2007 focuses on the performance of Southern California since 2000, particularly in 2006. As documented in the previous State of the Region Reports, the SCAG region lost significant ground during the 1990s relative to other large metropolitan regions in the nation with respect to basic socioeconomic well-being such as employment, income, education and housing affordability. This is primarily due to the economic and demographic transformations occurring throughout the region. They included the 1991-1994 recession, the most severe one since the Great Depression accompanied by record levels of residents leaving Southern California as well as influx of immigrants. However, during the same decade, the region was able to achieve significant progress in improving air quality and reducing violent crimes.

Between 2000 and 2005, the SCAG region did not lose additional ground in its basic socioeconomic well-being relative to other large metropolitan regions. This is partly because the 2001 national recession, which centered on the high tech industries, impacted other large metropolitan regions such as the San Francisco Bay Area more severely than the SCAG region. In addition, during this five-year period, housing and its related sectors such as construction, finance and real estate industries were stronger engines for growth in the region than in the rest of the nation. For example, the number of residential building permits issued in the region increased from 56,000 units in 2000 to 91,000 units in 2005, a jump of more than 60 percent compared to only a 35 percent increase for the nation, and the median home price in the region more than doubled in contrast to less than a 40 percent increase nationally.

During 2006, housing and its related sectors slowed down significantly in the region and the nation. For example, the number of residential permits dropped by 14 percent in the region while its median home price appreciation slowed to only 8 percent in 2006. In addition, gasoline prices surged to its peak level of $2.80 per gallon in 2006, becoming another factor to constrain growth. Despite these limiting factors, Southern California made progress in numerous areas in 2006 including a record low unemployment rate, and increases in real per capita income and median household income. This was partly due to the continuing rise in international trade, the recovery of the Los Angeles County economy and stabilization of the manufacturing sector. The region also made progress in increasing the share of alternative modes for commuting and reducing violent crimes. However, all these achievements were tempered by the stagnation of real average wage per job, record high housing cost burdens for owners and renters, continuing rise in high school dropout rate, and the severe health impacts from air pollution confirmed by recent studies.

Highlights of the findings are summarized below, and discussed in further detail in the main report.

1. Population growth in the region has been slowing due to increased domestic outmigration. However, since 2000, population in the region has increased by almost 2 million. The region also continued the demographic transformation in its ethnic composition, longer settlement of the immigrant population, disproportionately higher but declining share of the nation's immigrant population (legal or unauthorized), growing population share of immigrants' second-generation descendants, and the aging of the overall population.

Since 2000, population in the region has increased by almost 2 million to reach 18.5 million in 2006. After achieving its largest annual increase in 2001 of approximately 350,000, population



growth in the SCAG region slowed to 213,000 in 2006. A major factor behind the slowing growth was the increased net domestic outmigration, i.e., there were more people moving out of Southern California to the rest of the nation than vice versa. This could be due to the widening gap of the cost of living between the region and the rest of the nation particularly with respect to housing, and the overall economic recovery in the rest of the nation. As to the sources of population growth between 2000 and 2006, over half (55 percent) was due to natural increase, 44 percent was from net foreign immigration and only 1 percent from net domestic migration.

There are five important demographic dynamics at work in Southern California. They include the continuing change in the ethnic composition, longer settlement of the immigrant population, disproportionately higher but declining share of the nation's immigrants population (legal or unauthorized), growing share of immigrants' second generation, and the aging of the overall population. All five dynamics continued through 2006. They are interrelated and together have significant implications for the future performance potential of Southern California. As to the transformation in ethnic composition, the share of the Hispanic population reached 44 percent in 2006, about a 4-percentage point increase from 2000 and a dramatic increase from only 10 percent in 1960. About 8 percent of the region's residents were unauthorized immigrants. The growing share of the immigrants' second-generation contributed to a slower pace of aging process in Southern California than in the rest of the nation. Among the nine largest metropolitan regions in the nation, the SCAG region continued to be the second youngest in terms of median age (33.5) in 2006, following the Dallas region (33.2).

2. Despite a weakening housing sector, the region continued its job expansion in 2006 with the lowest unemployment rate since 1980. Job growth slowed in the Inland Empire and Orange County but accelerated in Los Angeles County. Gains in both real per capita income and real median household income in 2006 were tempered by the stagnation in real average payroll per job. Since 2000, the region has achieved little in real per capita income and real average payroll per job while real median household income in 2006 was still below its 2000 level.

In 2006, the region's job market continued to show a broad-based expansion over the previous year. After gaining about 131,000 jobs (or 1.9 percent) in 2005, total wage and salary jobs in the region increased by more than 156,000 (2.2 percent) during 2006. The increase in 2006 was the highest since 2000 in terms of number of jobs and growth rate. Accelerated growth in professional and business services, logistics and hospitality sectors and stabilization of the manufacturing sector particularly in Los Angeles County more than offset the weakness in housing-related

sectors that slowed the growth in the Inland Empire and Orange County. In 2006, the region achieved a slightly higher rate of job growth (2.2 percent) than the rest of the state (1.5 percent) and the nation (1.8 percent).

It should be noted that the region achieved its lowest unemployment rate (4.6 percent) in 2006 since 1980. However, based on preliminary data, average payroll per job in the region at $46,414 in 2006 changed little from 2005 after adjusting for inflation, and continued to rank last among the nine largest metropolitan regions in the nation. Between 2000 and 2006, average wage per job was somewhat stagnant at the national, state and regional levels. In 2006, the real average wage per job in the region was only slightly above its 2000 level.

In 2006, partly due to the improvement of the job market, real personal income per capita in the region increased by 1.3 percent to reach $36,614, while it also increased for the nation (1.9 percent to reach $36,276) as well as the state (1.5 percent to reach $38,956). However, real per capita income only increased by 1.5 percent between 2000 and 2006. Among the 17 largest metropolitan regions in the nation, the SCAG region ranked 16th in per capita income in 2005, dropping from the 4th highest in 1970 and 7th highest in 1990.

The real median household income in the region at $55,678 in 2006 represented a 2.6 percent increase from 2005. Nevertheless, it was still 4 percent below its 1999 level. Between 1999 and 2006, real median household income also declined at the state and national levels. In 2006, 13.6 percent of residents in the region lived in poverty, a slight decrease from 2005 (14 percent) but a notable improvement from 1999 (15.6 percent). However, in 2006, there were still over 19 percent of children under 18 living in poverty.

3. Building permit decline in 2006 was concentrated in single-family housing while permits for multi-family units actually increased. Since 2000, the region has achieved steady increases in homeownership rates. However, with record high housing prices and continuing rent increases in 2006, the region experienced record high housing cost burdens for both owners and renters.

From 2005 to 2006, the total number of building permits issued dropped by 14 percent from 91,000 to 78,200 units, a decline for the second consecutive year. Total valuation of permits also decreased by $2.5 billion (22 percent) reaching almost $18 billion. Notably, the decline was only for the single-family units while permits for multi-family units actually achieved a 15 percent (or 3,700 units) increase. Within the region, the decline in building permits was concentrated in the Inland Empire. Among the total permits issued in 2006, about 36 percent were for multi-family housing, an increase from 27 percent in 2005. In both Los Angeles and Orange counties, more than 60 percent of the building permits issued was for multi-family units.

Since 2000, homeownership in the region has been increasing steadily to reach almost 57 percent, an increase of 2 percentage points. Homeownership in Riverside County reached 69.2 percent in 2006, the highest in the region, followed by Ventura County with 68.7 percent. Los Angeles County, though its homeownership increased from 47.9 percent in 2000 to over 49 percent in 2006, continued to be the lowest in the region. Among the nine largest metropolitan regions in the nation, the SCAG region

continued to have the second lowest homeownership rate, just above the New York region (56 percent).

With record high housing prices and continuing rent increases, housing cost burdens continued to rise across the region and reached record highs in 2006 for both owner and renter households. The housing affordability gap between the region and the nation has also been widening. While 60 percent of the first-time homebuyers in the nation can afford an entry-level home in 2006, less than 30 percent of the region's first-time homebuyers could achieve the same. In addition, over 53 percent of owner and renter households had monthly housing costs at or greater than 30 percent of household incomes in 2006, up by 13 and 10 percentage points respectively since 2000. Among the nine largest metropolitan regions in the nation, the SCAG region continued to have the highest level of housing cost burden for owner and renter households.



4. In 2006, for the second consecutive year, the region experienced a decrease in drive-alone share and an increase in alternative modes share of commuting, both reversing the recent trends. These trend reversals were partly due to steep increases in gasoline prices. The region also achieved the highest transit boardings since 2000. From 2004 to 2006, total vehicle miles traveled (VMT) generally stabilized and VMT per household declined for two consecutive years.

For the past few decades, Southern California has been consistently experiencing very high levels of congestion. The SCAG region (particularly Los Angeles and Orange counties) regularly ranks as the most congested metropolitan region in the nation. Contributing factors include large population and physical extent of the region, significant population growth, high automobile dependence, low levels of transit usage, and a maturing regional highway system with limited options for expansion.

An average gasoline price at $2.80 in 2006 was the highest since 1970. High gasoline prices since 2004 have impacted the commuters' mode choices and total vehicle miles traveled. From 2004 to 2006, there was a notable decrease in the region's share of drive-alone commuting from 76.7 percent to 74.1 percent, reversing the trend of steady increases between 2000 and 2004. During the same period, the share of alternative modes for commuting increased from 23.3 percent to 25.9 percent, reversing the previous trend of a steady decline.

In addition, between 2004 and 2006, total VMT generally stabilized despite the continuing growth in population and employment. It should be noted that historically, the rate of VMT growth was noticeably higher than that of population growth. VMT per

household in the region actually declined for two consecutive years between 2004 and 2006. Finally, average commute time in 2006 also declined slightly throughout the region from 2005.

Total transit boardings in the region in FY 2006 (from July 2005 to June 2006) increased by 6 percent to a record high of 737 million since 1990. Transit trips per capita at 40 were also the highest since 1990. This was primarily due to the continuing growth of the Los Angeles Metro transit system ridership facilitated by the surge in gasoline prices.

5. The region continued to have the highest concentration of $PM_{2.5}$ and ozone in the nation and improvements have shown signs of leveling off. Recent studies confirmed the severe health impacts from $PM_{2.5}$ including an estimated 5,400 premature deaths per year. About 80 percent of emissions reduction needed are under the federal or state jurisdictions. The region continued to meet the federal standards for carbon monoxide.

Despite the significant improvements during the past two decades, the region still has some of the worst air quality. Specifically, the South Coast Air Basin has the highest concentration of ozone and $PM_{2.5}$ in the nation. In addition, improvements to ozone and $PM_{2.5}$ have shown signs of leveling off over the past few years.

In 2006, the annual average $PM_{2.5}$ concentration in the South Coast Air Basin was 20.6 ug/m^3, a slight decrease from that in 2005 (21 ug/m^3) but continuing to significantly exceed the federal standard of 15 ug/m^3. The South Coast Air Basin also exceeded the (new) federal 24-hour standard for $PM_{2.5}$ on 11 percent of sampling days in 2006, and its maximum 24-hour $PM_{2.5}$ concentration in the South Coast Air Basin at 54 ug/m^3 also well exceeded the new federal standard of 35 ug/m^3.

$PM_{2.5}$ is responsible for most of the serious health effects known from exposure to ambient air pollutants. The South Coast has almost a 52 percent share of the nation in population-weighted exposures to $PM_{2.5}$ above the national annual average standard. Accordingly, residents in the South Coast suffer extraordinary health impacts annually including an estimated 5,400 premature deaths, 140,000 children with asthma and respiratory symptoms and close to one million lost work days. About 80 percent of the emission sources for $PM_{2.5}$ are within the state or federal jurisdictions and not within local control. To have any reasonable expectation of meeting the 2014 $PM_{2.5}$ deadline, the pace of improvement for $PM_{2.5}$ must accelerate under the federal and state jurisdictions.

Between 2005 and 2006, the number of days exceeding the federal 24-hour standard (150 ug/m^3) for PM_{10} increased slightly from 0 to 2.8 days in the Mojave Desert Air Basin, and from 8.5 days to 12.5 days in the Salton Sea Air Basin. The South Coast Air Basin did not experience any exceedance of the federal 24-hour standard between 2004 and 2006.

Ozone pollution worsened slightly in the South Coast Air Basin and Ventura County in 2006 but improved in the Mojave Desert and Salton Sea air basins. In the most populous South Coast Air Basin, the number of days exceeding the federal 8-hour ozone standard increased slightly from 84 days in 2005 to 86 days in 2006. However, since 1998 ozone improvements have shown signs of leveling off. However, during the same period, both the Mojave Desert and the Salton Sea air basins experienced some reductions in the number of days exceeding the federal 8-hour standard, from 55 to 50 days and 43 to 32 days respectively.

6. The burning of fossil fuels contributes significantly to regional air pollution and global warming and poses a serious threat to the economic well-being, public health, and the environment of Southern California and beyond. Strong dependence on foreign imports greatly reduces the reliability and security of this vital resource.

Energy use in California and the region are predominantly fossil-fuel based (i.e. petroleum, natural gas and coal). Since 1990, the shares of fossil fuels of total energy consumption in the state and the region have remained relatively constant around 86 percent. California obtains nearly two-thirds of its energy from outside its borders, including 63 percent of petroleum, 85 percent of natural gas and 22 percent of electricity. The share of foreign petroleum imports has been increasing rapidly, from below 10 percent in 1995 to over 40 percent in 2006. The transportation sector is the largest energy user at 39 percent, followed by the industrial sector at 24 percent.

The use of fossil fuels generated significant impacts on regional air quality including $PM_{2.5}$ and ozone pollution. For example, the burning of fossil fuels for mobile sources in the region is responsible for more than 85 percent of its total NO_X emissions, a precursor of ozone pollution. In addition, the combustion of fossil fuels to release their energy creates carbon dioxide emissions (CO_2), the most significant greenhouse gas that affects global climate change and specifically global warming. Currently, the Earth is warming faster than any time in the previous 1,000 years, and eleven of the last 12 years (1995-2006) with the exception of 1995 ranked among the 12 warmest years on record since 1850.

In 2000, California generated 473 million metric tons (CO_2 equivalent) emissions, and is projected to reach over 600 million metric tons by 2020. Among the climate change pollutants for California, 81 percent are CO_2 emissions from fossil fuel combustion. In terms of total CO_2 emissions, California is second only to Texas in the nation and is the 16th largest source of climate change emissions in the world, exceeding most nations. The SCAG region, with close to half of the state's population and economic activities, is a major contributor to the global warming problem and should also be a major contributor to its solution.

7. Since 2000, the high school dropout rate has been increasing, reaching over 15 percent in 2006. The region had only 36 percent of its high school graduates in 2006 completing courses required for University of California (UC) or California State University (CSU) entrance, little improvement from 2000. There continues to be significant disparities in educational performance among different racial and ethnic groups. On the other hand, the region has made steady improvements in educational attainment among residents.

Between 2000 and 2006, dropout rates for high schools in the region increased from 12.1 percent to 15.3 percent. During this period, the dropout rate of San Bernardino County increased continuously from 12 percent to almost 21 percent, the highest in the region and significantly higher than the state average of nearly 15 percent. Except for Orange County, every county in the region experienced a much higher dropout rate in 2006 than in 2000.

As to college readiness, only 36 percent of high school graduates in 2006 completed courses required for University of California (UC) or California State University (CSU) entrance. When compared to 2000, only Orange and Imperial counties made some improvement. There continues to be significant disparities in



educational performance among different racial and ethnic groups with respect to, for example, high school dropout rates and college readiness.

There were noticeable improvements in educational attainment in the region between 2000 and 2006, consistent with national trends. The percentage of adults with at least a high school degree increased from 74 to 77 percent while it increased from 25 to 27 percent for adults with at least a bachelor's degree. Nevertheless, among the nine largest metropolitan regions, the SCAG region remained second to last with at least a bachelor's degree (27 percent). Between 2000 and 2006, the coastal counties within the region achieved greater improvements in educational attainment for at least a bachelor's degree than the inland counties.

8. Violent crime rates have continued to decline to its lowest level in three decades. Juvenile felony arrest rate increased for the third consecutive year in contrast to the trend of continuous decline between 1990 and 2003. Hate crime activities in 2006 were also at their lowest level since 2000.

In 2006, the violent crime rate in the region decreased slightly by 1.7 percent to its lowest level in three decades. The violent crime rate in the region in 2006 was less than 40 percent of its peak level in 1992. Within the region, Imperial County achieved the most significant reduction of 18 percent in the violent crime rate. Violent crime rate in the region was only 10 percent higher than the national average in 2006, a remarkable improvement from a 40 percent gap in 2000. Ventura and Orange counties had about half of the national rate, and only Los Angeles County experienced a significantly higher rate than the national average.

From 2005 to 2006, the juvenile felony arrest rate in the region increased by almost 5 percent. This was the third consecutive year of increase in contrast to the trend of continuous decline between 1990 and 2003. Nevertheless, the juvenile felony arrest rate in the region in 2006 was only about 43 percent of the 1990 level.

Between 2005 and 2006, property crime rates in the region declined by 5 percent. Specifically, San Bernardino and Orange counties achieved notable reductions of 7 percent respectively. The number of hate crime events and victims in the region decreased by 9 percent and 5 percent respectively, reaching their lowest levels since 2000.

Report Card Summary

Based on the performance indicator information as contained in this Executive Summary and discussed in further detail in the remainder of the report, SCAG's Benchmarks Task Force developed the Report Card for 2006 for selected issue areas as shown below. It should be noted that grades in the Report Card represented the regional average while an individual county may perform above or below the average. In addition, not all the issues covered in this report were graded.

The Benchmarks Task Force will consider the potential inclusion of additional issue categories into the Report Card.

The State of the Region Report Card Summary

Grade A: excellent	B: moderately well	C: average	D: potential failure	F: failing	
Sector	**2002**	**2003**	**2004**	**2005**	**2006**
Employment	B-	B	B	B	B
Income	C-	C-	C	C	C
Housing	D+	D	D	D	D
Mobility	D-	D-	F	F	D-
Air Quality	C	C-	C	C	D
Education	D	D	D	D	D-
Safety	B	B	B	B	B

**A complete copy of the State of the Region Report Card can be accessed at www.scag.ca.gov/publications*

The Path Forward

Since 2000, the region has achieved mixed performance results on the primary performance indicators. On the one hand, unlike during the 1990s, the SCAG region overall has not lost additional ground since 2000 in the basic socioeconomic well-being (e.g., employment, income, and education) relative to other large metropolitan regions in the nation. On the other hand, it has achieved little absolute improvements in several areas (e.g., per capita income and average wage per job) and fared worse in some areas (e.g., high school dropout rates and housing affordability). At the end of 2006, the SCAG region continued to perform significantly below the average of the nine largest metropolitan regions with respect to the basic socioeconomic well-being of its residents. Furthermore, improvements to air quality have shown signs of leveling off and strategies to reach attainment are increasingly more difficult to develop and implement. Climate change emissions from burning fossil fuels in the region have also continued to rise. However, the region has made notable progress in a few areas including reducing violent crime rates, increasing homeownership and achieving the lowest unemployment rates for the past three decades.

Looking ahead, the region is expected to increase another 5 million residents in the next 25 years with a majority from natural increases, along with an estimated tripling of international trade. During the same period, it will experience important demographic and labor force transformations as baby boomers retire and will largely be replaced by immigrants and their children. A predominant challenge of the region is how to regain its economic competitiveness (e.g., per capita income and average wage per job) and improve the quality of life for current and future generations while accommodating the tremendous growth in population and trade in a period of major demographic and labor force transformations.

In 2006, the first baby boomers reached 60 and the entire baby boomer generation will pass their retirement age within the next 25 years. Currently, immigrants and their children account for about 54 percent of the region's population, and among the total child population in the region, more than 45 percent belong to the immigrants' second generation. Accordingly, immigrants and particularly their children will have major impacts on the future performance outcomes of the region. The current trend of longer settlement of the immigrant population in the region facilitates a positive prospect for the socioeconomic competitiveness of our region since immigrants' socioeconomic status generally improves as they have settled longer. However, this prospect should not be taken for granted since supportive policies are necessary to, for example, reduce the high school dropout rates and improve the educational performance of the immigrants' second generation.

The severe health impacts from air quality and the urgent need to address global climate change have become key drivers for planning. To

achieve federal standards to protect the health of the residents, the region will need to, among others, transform the existing freight movement system to a clean technology based system. In addition, AB 32 (California Global Warming Solutions Act), enacted in 2006, required innovative actions to reduce the greenhouse gas emissions to the 1990 level by 2020. Both the goals related to air quality and climate change require substantial reduction of VMT associated with fossil fuels. The climate change legislation is historic in aiming at reversing long-standing trends such as VMT growth. The region has also been facing persistent challenges (e.g., socio-economic disparities among different ethnic/racial groups) that require bold actions.

To reverse long-standing undesirable trends or address persistent challenges will require integrated system planning, innovations on many fronts, and collaborative partnerships of public, private and non-profit sectors. Economic competitiveness, livability, environmental sustainability, and social equity are interrelated among each other particularly at the regional level. Accordingly, an integrated system planning strategy at the regional level is essential to improve the overall performance. Innovation is required because many of the past practices will no longer be sufficient. There are needs for innovation in planning process, technology deployment, financing mechanisms, and institutional design for implementation. There is also a great need for collaboration among public, private and non-profit sectors for policy development and implementation.

Based on the understanding discussed above, SCAG has been working collaboratively to develop and implement several initiatives to significantly improve the competitiveness and quality of life in the region. They include, among others, a regional growth vision, a regional goods movement strategy, and Southwest Alliance. The Compass Blueprint (2% Strategy) is aimed at focusing future development and redevelopment in strategic transit corridors and urban centers in order to reduce congestion, produce more affordable housing, decrease the region's dependence on automobiles and associated fossil fuels, and preserve open space. The Regional Strategy for Goods Movement is aimed at, among other objectives, enhancing economic competitiveness, fostering upward mobility and improving air quality. The Southwest Alliance initiative is pursuing interregional collaboration with neighboring regions including Mexico to develop an economic development plan for the larger region including infrastructure development. Those initiatives have gained momentum partly through extensive partnership. In addition, passage of the historic state infrastructure bond initiatives in November 2006 has also brought notable new resources for change.

Finally, over the past three years, SCAG has been working with many stakeholders to develop a new Regional Comprehensive Plan (RCP). The vision of the RCP is to foster a Southern California region that addresses future needs while recognizing the interrelationship between economic prosperity, natural resources sustainability, and quality of life. Through measured performance and tangible outcomes, the RCP serves as both an action plan for implementation of short-term strategies and a call to action for strategic, long-term initiatives for sustaining a livable region. In short, the RCP will strive to furnish an integrated system planning strategy to substantially improve the region's livability, mobility, competitiveness and sustainability.



Among the total child population in the region, more than 45 percent belongs to the immigrants' second generation.

Population

Growth Characteristics

During the year 2006, the SCAG region added 213,000 residents, reaching a total of 18.5 million. This represents close to half of the population in the state and over 6 percent in the nation (Figure 1). *Since the April 2000 Census, population in the region has increased by almost 2 million (or 12 percent). However, after achieving its largest annual increase in 2001 of approximately 350,000, population growth in the region has been slowing.* The SCAG region has more population than any state in the nation with the exceptions of California, Texas and New York.

Figure 1

Population Increase: 2005 and 2006 (Thousands)

						2005 Increase		2006 Increase	
County	1990	2000	1/1/2005	1/1/2006	1/1/2007	Number	Percent	Number	Percent
Imperial	109.3	142.3	161.7	167.0	172.6	5.3	3.3%	5.6	3.4%
Los Angeles	8,863.0	9,519.3	10,191.0	10,257.9	10,331.9	66.9	0.7%	74.0	0.7%
Orange	2,410.6	2,846.2	3,050.4	3,071.9	3,098.1	21.5	0.7%	26.2	0.9%
Riverside	1,170.4	1,545.3	1,885.6	1,966.6	2,031.6	81.0	4.3%	65.0	3.3%
San Bernardino	1,418.3	1,710.1	1,948.4	1,993.9	2,028.0	45.5	2.3%	34.1	1.7%
Ventura	669.0	753.1	811.2	817.3	825.5	6.1	0.8%	8.2	1.0%
REGION	14,640.6	16,516.3	18,048.3	18,274.6	18,487.7	226.3	1.3%	213.1	1.2%
Rest of California	15,117.6	17,356.7	18,694.8	18,920.6	19,174.8	225.8	1.2%	254.2	1.3%
California	29,758.2	33,873.0	36,743.1	37,195.2	37,662.5	452.1	1.2%	467.3	1.3%
U.S.	248,709.8	281,421.9	295,134.8	298,024.8	300,888.8	2,890.0	1.2%	2,864.0	1.0%

Source: U.S. Census Bureau, 1990 and 2000 Census, and California Department of Finance

Since 1990, annual population growth in the region has varied significantly (Figure 2).[1] Average annual growth dropped from about 300,000 in 1991 to about 70,000 in 1995 due to the severe recesion, and then resumed accelerated growth to reach 350,000 in 2001. Since 2001, despite a generally stable natural increase (births over deaths) of approximately 164,000 per year, total population growth in the region has been reduced from about 350,000 (over 2 percent growth rate) to about 220,000 (1.2 percent) per year. Specifically, between 2001



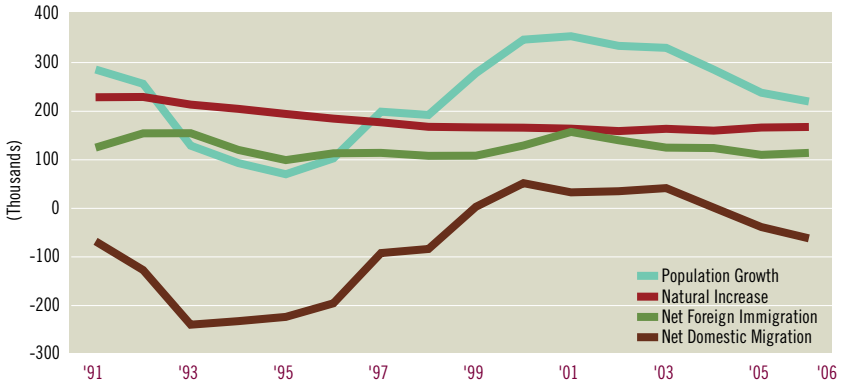
and 2006, the net foreign immigration into the region dropped from about 157,000 to 115,000. This is consistent with the trend that recent immigrants are becoming a little more dispersed throughout the nation and are increasingly less concentrated in historical gateway regions particularly Southern California. During the same period, domestic migration also decreased from about 33,000 net in-migration in 2001 to 62,000 net outmigation in 2006, i.e., there were 62,000 more people moving out of Southern California to the rest of the nation in 2006 than vice versa.

The reversal in domestic migration occurred when the job market in the region was actually improving and performing a little better than the rest of the nation (as discussed in the Employment Section). The turnaround in domestic migration could be due to the widening gap of cost of living between the region and the rest of the nation, and the overall economic recovery in the rest of the nation. For example,

between 2000 and 2006, overall cost of living as measured by the consumer price index rose by 23 percent in the region compared to the national average of 17 percent.[2] An important factor contributing to the widening gaps of cost of living is the relatively higher housing prices in the region. Between 2000 and 2006, median housing price jumped by 160 percent in the region while it increased less than 40 percent in the nation (see Figure 15 page 28).

Figure 2

Population Growth by Types of Source
1991-2006



Source: California Department of Finance

In 2006, population growth in the region of 1.2 percent was slightly lower than that of the rest of the state (1.3 percent) in contrast to the previous track record of faster growth. Though the region as a whole continued to grow faster than the nation, its three coastal counties (Los Angeles, Orange and Ventura) grew at slightly lower rates than the national averages for the past three years. The three inland counties (Riverside, San Bernardino and Imperial) continued to grow two to three times faster than the nation. Among the nine largest metropolitan regions in the nation, Southern California experienced the second highest growth rate between 2000 and 2006 following only the Dallas region (see Figure 122 page 145).

Population growth in the region in 2006 accounted for 46 percent of the total increase in the state. *Four of the top six California counties experiencing absolute population increase were in the SCAG region, including Los Angeles (1st), Riverside (2nd), San Bernardino (4th) and Orange counties (6th).*[3] Two neighboring counties of the SCAG region also made it into the top ten, San Diego (3rd) and Kern (7th). Another neighboring county, Santa Barbara, increased only about 4,400 people during 2006. During 2006, the region reached another milestone in its growth history. Specifically, both Riverside and San Bernardino counties surpassed 2 million residents while the City of Los Angeles reached the 4 million mark.





As to the rate of growth, the three inland counties achieved significantly higher growth rates than the rest of the state (1.3 percent). Specifically, Imperial County achieved the highest growth rate of 3.4 percent in the state in 2006, followed by Riverside County (3.3 percent) while the neighboring Kern County ranked third.

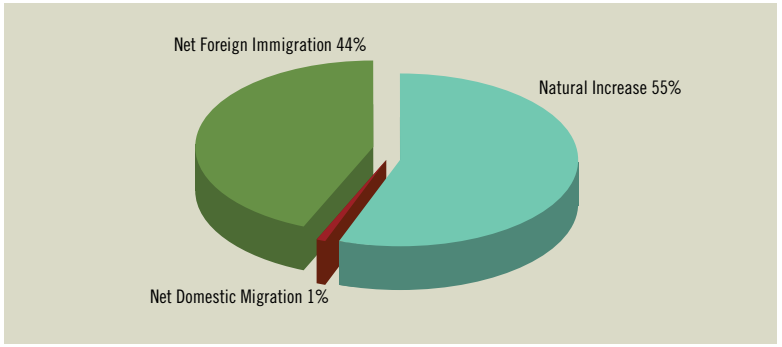
Among the top ten fastest growing cities under 300,000 in the state in 2006 based on absolute change, seven were from the SCAG region including the top four: Fontana, Santa Clarita, Irvine, and Victorville. In addition, the region also includes the top three fastest growing cities based on percentage change including Beaumont (21 percent), Imperial (17 percent) and Lake Elsinore (15 percent).[4]

In 2006, the Inland Empire (Riverside and San Bernardino counties) captured almost half (47 percent) of the total population growth in the region, significantly higher than their share of only 22 percent of the region's total population. Another 35 percent of the total growth in the region in 2006 took place in Los Angeles County, lower than its population share of 56 percent.

As to the sources of population growth in the region between 2000 and 2006, over half (55 percent) was due to natural increase, 44 percent was from net foreign immigration and only 1 percent from net domestic migration (Figure 3). Within the region, natural increase, foreign immigration and domestic migration contributed differently to the population growth among different counties (Figure 4). *Overall, natural increase contributed much more significantly to the growth in the three coastal counties (Los Angeles, Orange and Ventura) and Imperial than the Inland Empire (Riverside and San Bernardino) where net domestic inmigration played a more significant role.* While migration to the coastal counties consisted exclusively of foreign immigrants, migration to the Inland Empire was primarily domestic migrants who moved within the region (i.e. intra-regional migration), particularly from Los Angeles County.

Figure 3

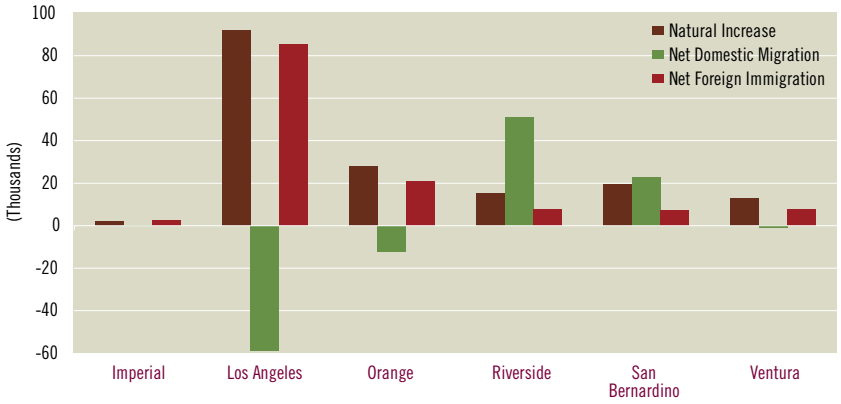
Population Growth by Types of Source 2000-2006



Source: California Department of Finance

Figure 4

Population Growth - Types of Source by County, 2000-2006
(Annual Average)



Source: California Department of Finance

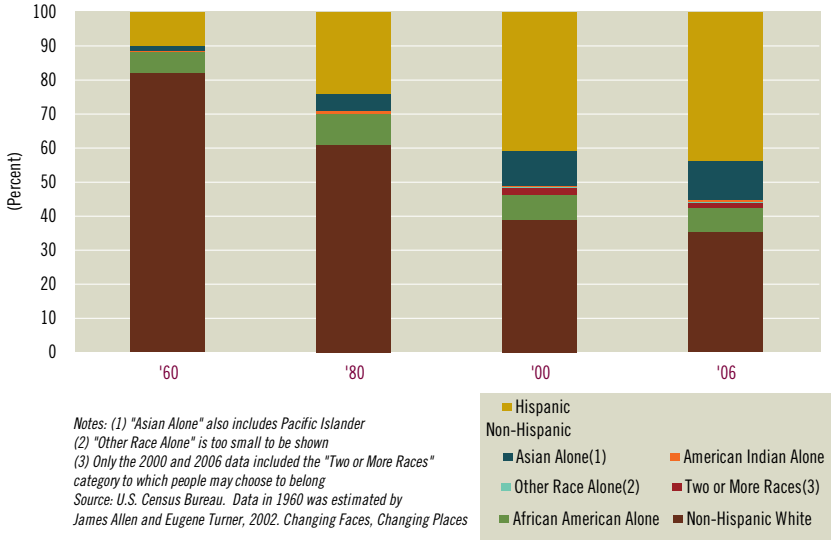
Demographic Dynamics

There are five important demographic dynamics at work in Southern California. They include the continuing change in the ethnic composition, longer settlement of the immigrant population, disproportionately higher but declining share of the nation's immigrant (legal or unauthorized) population, growing share of immigrants' second generation and the aging of the overall population. These five dynamics are interrelated and together they have significant implications for the future performance potential of Southern California. All five dynamics continued through 2006. As a result of these dynamics, the nativity, ethnic composition and age structure of the population in the region today diverge widely from that of the nation.[5] The following provides a summary of the demographic dynamics that were discussed in further detail in the 2005 Report and the 2006 Report guest essay (with the exception of the dynamics on unauthorized immigrants that are introduced for the first time in this report).[6]

As to the transformation in ethnic composition, the share of the Hispanic population reached 44 percent in 2006, about a 4 percentage point increase from 2000 and a dramatic jump from only 10 percent in 1960 (Figure 5). The share of the Asian population increased from 2 percent in 1960 to almost 12 percent in 2006. Since 1960, the share of the non-Hispanic White population declined from about 80 to 39 percent in 2000 and 35.5 percent in 2006. The share of the African American population in the region was just below 7 percent in 2006. Since 2000, the vast majority (80 percent) of the growth in the region were Hispanics.[7]

Figure 5

Population by Race and Ethnicity



Notes: (1) "Asian Alone" also includes Pacific Islander
(2) "Other Race Alone" is too small to be shown
(3) Only the 2000 and 2006 data included the "Two or More Races" category to which people may choose to belong
Source: U.S. Census Bureau. Data in 1960 was estimated by James Allen and Eugene Turner, 2002. Changing Faces, Changing Places

An important demographic dynamic is that the region's immigrant population has achieved longer settlement which has important implications for its overall level of socioeconomic well-being. In 2006, about 31 percent (5.5 million) of the region's total population were foreign-born



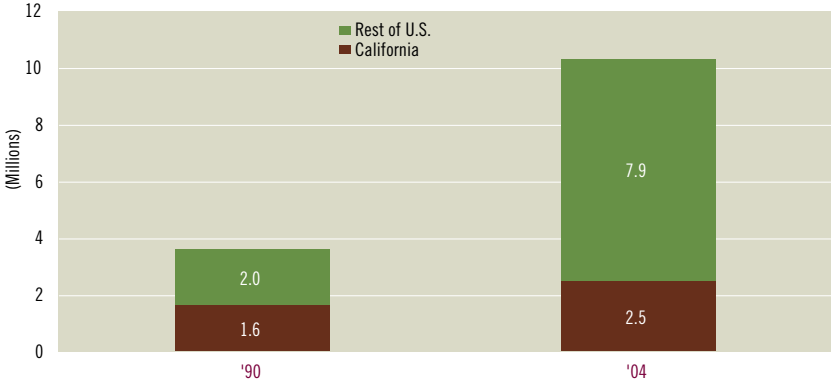
and they represented about 15 percent of the immigrants in the nation, markedly higher than the region's share of the total population in the nation at only 6.1 percent. Recent immigrants to the U.S. have increasingly pursued economic opportunities in areas where fewer immigrants had lived previously. As a result, Southern California's share of immigrant arrivals dropped from about 25 percent to 10 percent between 1990 and 2006. As to the share of the total population in the region, new immigrants increased from 4 percent in 1970 to 14 percent in 1990 then decreased to 11 percent in 2000, while the share of the settled immigrant population (arrived U.S. more than 10 years ago) increased continuously from just below 6 percent in 1970 to 20 percent in 2000. The level of socioeconomic well-being (e.g., educational attainment, household income, poverty rate, homeownership rate, etc.) of the immigrant population improves noticeably with the length of settlement.[8] The maturing settlement of the immigrant population could bring positive performance outcomes for the region's future, particularly with supportive public policies.

The growing share of settled immigrants also results in a growing share of the immigrants' second generation in the region, i.e. U.S.-born residents with at least one foreign-born parent. Currently, about 23 percent (or 4.3 million) of the population in the region belongs to the immigrants' second generation.[9] Among the total child population in the region, more than 45 percent belongs to the immigrants' second generation. Accordingly, the educational and occupational attainment of immigrants' second-generation, particularly children, will significantly impact the region's future performance.

Since 1990, unauthorized immigrants have been growing rapidly at the national level (Figure 6). Between 1990 and 2004, estimates of unauthorized immigrants in the nation grew from 3.6 million to 10.4 million. During this period, unauthorized immigrants grew from 1.6 million to 2.45 million in California, a 50-percent increase. However, they grew from 2 million to 7.9 million in the rest of the nation, almost four-fold. Since 1990, unauthorized immigrants have also expanded their migration network outside the traditional gateways such as Southern California, similar to their legal counterpart. In 2004, California's estimated 2.45 million unauthorized immigrants accounted for about a quarter of the national total, a significant decline from 42 percent in 1990.

Figure 6

Estimated Unauthorized Immigrants
(California vs. Rest of U.S.)

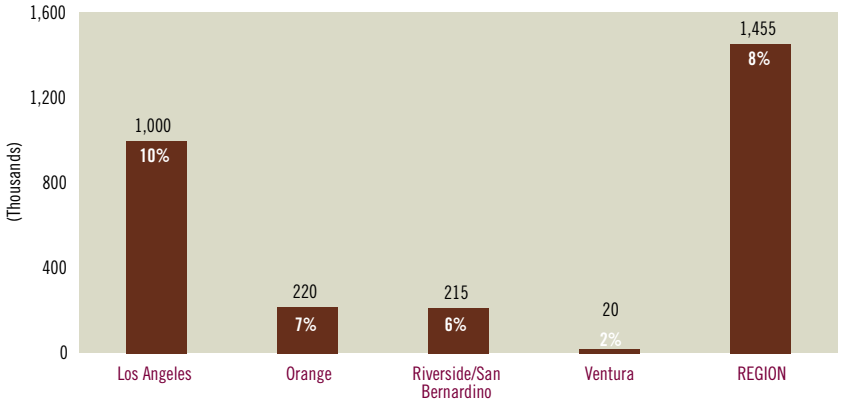


Source: Passel, J. S. 2005. Unauthorized Immigrants, Pew Hispanic Center

In the SCAG region, there were close to 1.5 million unauthorized immigrants in 2004, about 60 percent of the state total and 15 percent of the national total. The population share of unauthorized immigrants in the region at 8.4 percent was significantly higher than the rest of the state (5.4 percent) and the national average (3.6 percent). Unauthorized immigrants in the region were concentrated mainly in Los Angeles County, with a total of 1 million and accounting for 10 percent of the county's population (Figure 7).

Figure 7

Estimated Unauthorized Immigrants, 2004
(Number and Share of County/Region Population)



** Imperial County data not available*
Source: Fortuny, K., & Jeffrey Passel, 2007. The Characteristics of Unauthorized Immigrants in California, Los Angeles County, and the United States, the Urban Institute

Unauthorized immigrants have distinct characteristics when compared with their legal counterpart and the natives. Using Los Angeles County as an example, first, the vast majority (72 percent) of unauthorized immigrants were in their prime working age between 18 and 49 years old in contrast to only 34 percent for the U.S. born. Unauthorized immigrants had higher labor force participation rates particularly for males



at 94 percent. In addition, unauthorized immigrants had much lower educational attainment with only 42 percent having at least a high school education versus 62 percent for legal immigrants and 92 percent for the native-born. Consequently, the average incomes for unauthorized immigrant families at $26,300 were significantly lower than the U.S. born families at $50,300 (Figure 8).

Figure 8

Comparison among U.S. Born, Legal and Unauthorized Immigrants for Los Angeles County, 2004

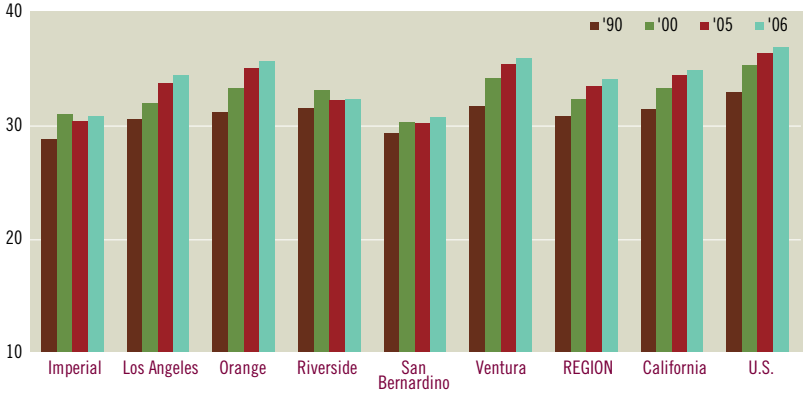
	U.S. Born	Legal Immigrants	Unauthorized Immigrants
Population Share of 18-49 Years	34%	49%	72%
Labor force participation (male)	81%	83%	94%
Labor force participation (female)	72%	58%	61%
Education: high school graduate or above	92%	62%	42%
Family income (average)	$50,300	$39,700	$26,300

Source: Fortuny, K., & Jeffrey Passel, 2007. The Characteristics of Unauthorized Immigrants in California, Los Angeles County, and the United States, the Urban Institute

As to the aging of the overall population, the median age continued to rise over time as in the rest of the nation (Figure 9). Median age increased from 30.7 in 1990 to 32.2 in 2000 and 33.5 in 2006.[10] In 2006, the region continued to be younger than the state (34.4) and the nation (36.4). Among the nine largest metropolitan regions in the nation, the SCAG region continued to be the second youngest in terms of median age, following the Dallas region (33.2) with Boston the oldest (38.2). The growing share of the immigrants' second generation contributed to the slower pace of aging process in Southern California than in the rest of the nation. The share of people 65 years and over in the region increased slightly from 9.6 percent to 10.2 percent between 2000 and 2006. *However, with the aging of the baby boomer generation, the population 65 years or older in the region is expected to increase by 2.3 million to a total of 4.1 million, about 16 percent of the total population in 2035 (Figure 10).*[11]

Figure 9

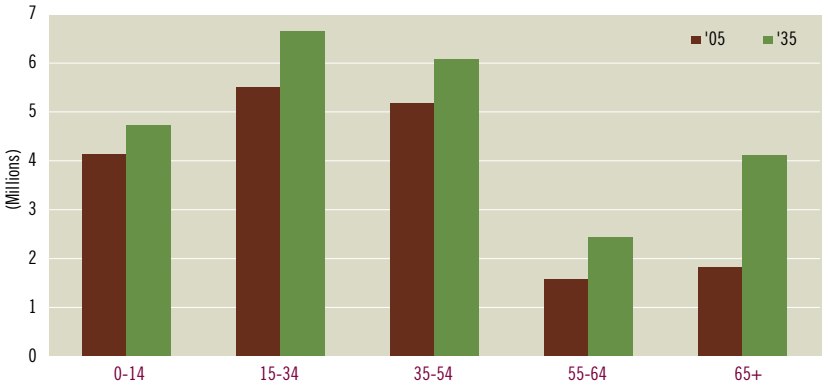
Median Age



Source: U.S. Census Bureau, 1990 and 2000 Census, 2005 and 2006 American Community Survey

Figure 10

Population by Age Group



Source: Southern California Association of Governments





In 2006, the logistics sector provided about 620,000 jobs, or one in twelve jobs in the region.

Employment

Total Employment

Why is this important?

The number, types and wage level of employment in large part determine our region's economic activities and well-being. Income generated through employment accounts for about 70 percent of the total personal income in the region.[1]

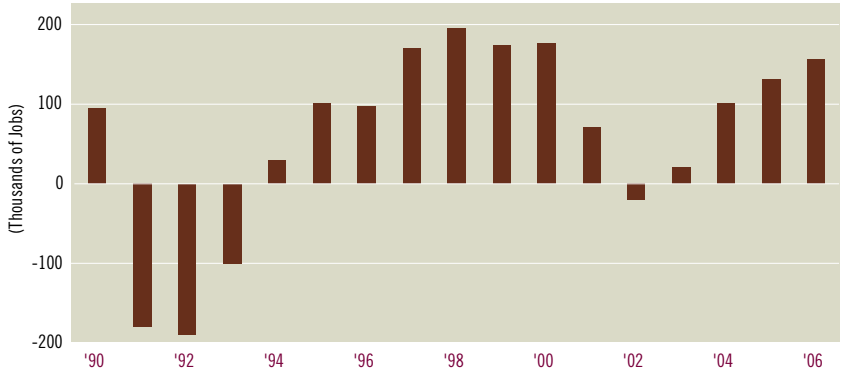
How are we doing?

In 2006, despite a weakening housing sector, the region's job market continued to show a broad-based expansion over the previous year (Figure 11). After gaining about 131,000 jobs (or 1.9 percent) in 2005, total wage and salary jobs in the region grew by more than 156,000 (2.2 percent) during 2006. *The increase in 2006 was the highest since 2000 in terms of number of jobs as well as rate of growth.*



Figure 11

Wage and Salary Employment
(Change from Previous Year)



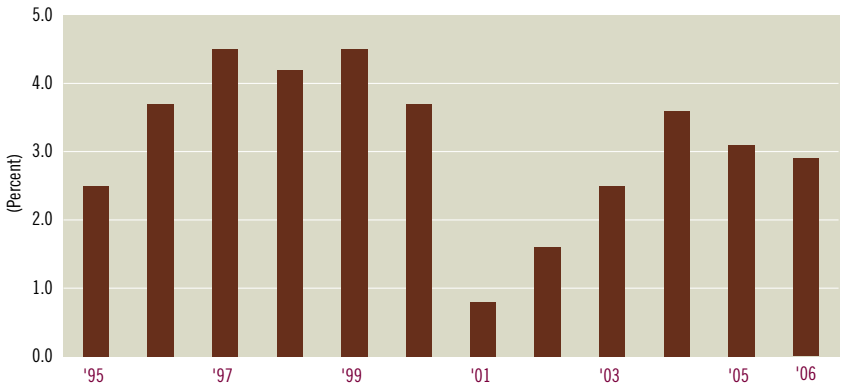
Source: California Employment Development Department

The year 2006 was also the third consecutive year since 2000 that job gains took place at the national level. Since the end of 2001, growth of the real gross domestic product (GDP) has been recovering. After dropping from 3.7 percent in 2000 to 0.8 percent in 2001 due to the recession, real GDP increased at an accelerated pace from 1.6 percent in 2002 to 3.6 percent in 2004 then slowing somewhat to 3.1 percent in 2005. *During 2006, GDP growth further moderated to 2.9 percent, just below the 3-percent average generally during an economic expansion period (Figure 12).*



Figure 12

Real Gross Domestic Product (GDP), U.S.
(Percent Change from Previous Year)



Source: U.S. Bureau of Economic Analysis

Between 2005 and 2006, gasoline prices surged almost 25 percent. An increase in energy prices slows economic growth in the short run primarily through its effects on spending, or aggregate demand. Because the United States imports most of its oil, an increase in oil price will lead to reductions in domestic spending. At the same time that higher oil prices slow economic growth, they also create inflationary pressures that could further reduce the demand.

Gains in real GDP in 2006 were due primarily to the continuing growth in consumer spending and private investment, though at lower rates than that in the previous period. Real consumer spending increased by 3.1 percent between 2005 and 2006, slightly less than the 3.2 percent gain during the previous period.[2] As to the private non-residential investment, it expanded by 6.6 percent after a 7.1 percent increase in 2005. Private residential investment, however, suffered a 4.6 percent decline in 2006 in contrast to the 6.6-percent increase in 2005. From 2005 to 2006, productivity growth slowed from 1.9 percent to 1 percent. In 2006, even with the slightly lower growth rate of real GDP than in 2005, the lower rate of productivity growth resulted in a slightly higher rate of job growth.

In 2006, the region achieved a slightly higher rate of job growth (2.2 percent) than the rest of the state (1.5 percent) and the nation (1.8 percent) (Figure 13). Between 2000 and 2006, the SCAG region performed better every year in job growth rates relative to the rest of the state and the nation (Figure 14). Between 2005 and 2006, the nation added almost 2.5 million jobs and since early 2005 its job base expanded from the pre-recession (2000) level. Total jobs for the rest of California finally expanded from the pre-recession (2000) level during 2006.



Figure 13

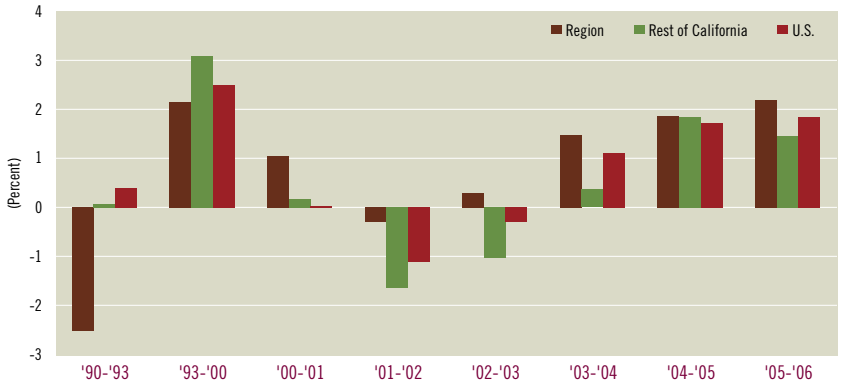
Wage and Salary Employment
(Thousands)

						'04-'05		'05-'06	
County	'90	'00	'04	'05	'06	Number	%	Number	%
Imperial	44.9	50.4	51.3	53.0	56.7	1.7	3.3	3.7	7.0
Los Angeles	4,149.5	4,079.8	4,004.1	4,031.6	4,100.2	27.5	0.7	68.6	1.7
Orange	1,179.0	1,396.5	1,463.4	1,496.5	1,525.5	33.1	2.3	29.0	1.9
Riverside	321.7	466.5	557.4	593.1	624.5	35.7	6.4	31.4	5.3
San Bernardino	413.4	543.6	621.3	647.1	663.9	25.8	4.2	16.8	2.6
Ventura	247.0	294.3	306.9	313.7	320.7	6.8	2.2	7.0	2.2
REGION	6,355.5	6,831.1	7,004.4	7,135.0	7,291.5	130.6	1.9	156.5	2.2
Rest of California	6,507.9	8,065.6	7,895.4	8,040.9	8,158.5	145.5	1.8	117.6	1.5
California	12,863.4	14,896.7	14,899.8	15,175.9	15,450.0	276.1	1.9	274.1	1.8
U.S.	109,403.0	131,785.0	131,435.0	133,703.0	136,174.0	2,268.0	1.7	2,471.0	1.8

Source: California Employment Development Department and Council of Economic Advisers

Figure 14

Employment Change
(Annual Average)



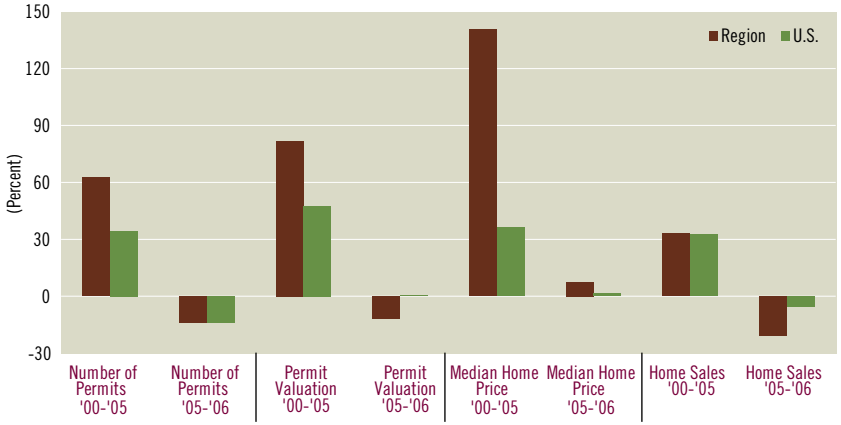
Source: California Employment Development Department and Council of Economic Advisers



All the national trends discussed above also affected the job market in Southern California. In addition, between 2000 and 2005, housing-related sectors contributed much more significantly to the job growth and economic expansion in the SCAG region than in the rest of the nation (Figure 15). Specifically, during this period, the impacts from both housing wealth (due to higher home equity) and housing construction on job growth were disproportionately higher in the region than in the rest of the nation. However, between 2005 and 2006, housing sector slowed significantly at the regional and national levels. Between 2000 and 2006, Southern California also experienced higher rates of population growth than the rest of the nation, which contributed to job growth in sectors such as retail trade, education and health care.

Figure 15

Building Permit and Home Price
(Percent Change)



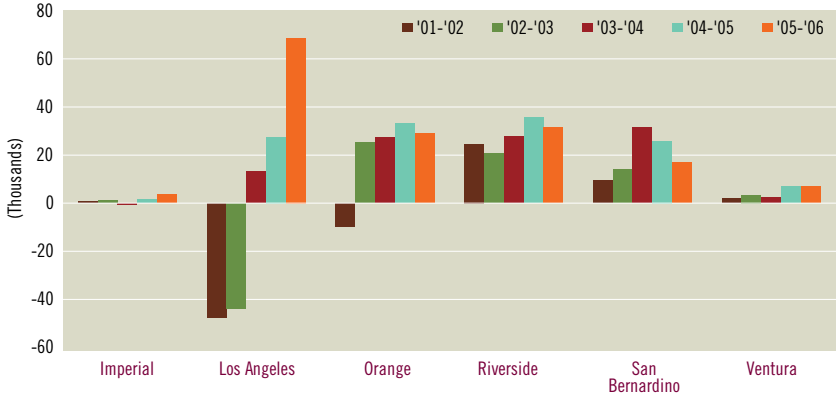
Source: Construction Industry Research Board, Joint Center for Housing Studies of Harvard University, Real Estate Research Council of Southern California, National Association of Realtors, and U.S. Census Bureau

Within the region, every county expanded its payroll jobs in 2006. *For the first time during this decade, Los Angeles County became the region's leading job generator in 2006, adding 69,000 jobs (or 1.7 percent growth rate) and accounting for 44 percent of the total job increase in the region*. This represented a sharp acceleration from only 28,000 job increase (0.7 percent) in 2005 (Figures 16 and 17). However, total payroll jobs in Los Angeles County in 2006 were still 50,000 below its 1990 level. Job growth was concentrated in the professional and business services, retail trade, logistics, and leisure and hospitality sectors.

Jobs in the Inland Empire (Riverside and San Bernardino counties) increased by 48,000 (or 3.9 percent) in 2006, noticeably less than the 62,000 job increase (5.2 percent) during the previous period. Riverside County, adding 31,400 jobs in 2006, continued to achieve a phenomenal growth of 5.3 percent though somewhat lower than the 6.4 percent growth in 2005. Job gains in Riverside County were concentrated in professional and business services, construction, leisure and hospitality and logistics. San Bernardino County, however, saw its job growth slowing significantly from 4.2 percent in 2005 to only 2.6 percent in 2006 with 17,000 new jobs concentrated in logistics, professional and business services and retail trade.

Figure 16

Employment Change by County
(Thousands of Jobs)



Source: California Employment Development Department and Council of Economic Advisers

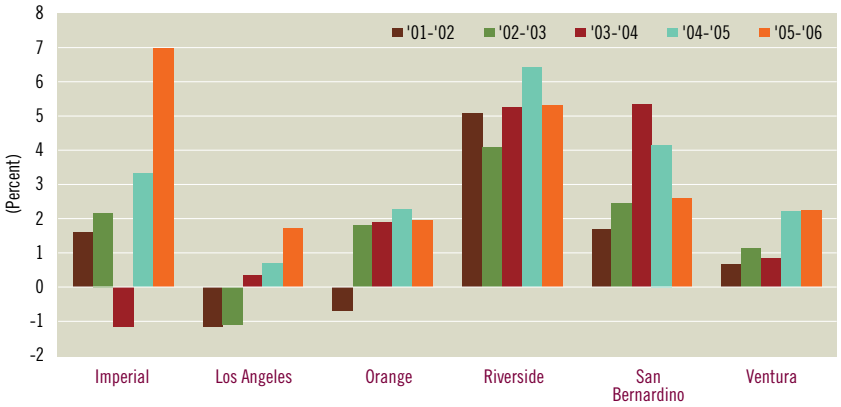
In Orange County, after gaining 33,000 jobs (or 2.3 percent) in 2005, total payroll job growth slowed slightly to 29,000 (or 1.9 percent) in 2006. Between 2001 and 2004, financial activities were the top new job generator in Orange County each year. However, from 2005 to 2006, there was almost no job increase in the financial activities sector. Professional and business services sector was the top job generator in the county, adding more than 10,000 new jobs in 2006.

In Ventura County, total payroll jobs added almost 7,000 (2.2 percent) in 2006, similar to the performance during the previous period. Finally, Imperial County's payroll jobs increased by 3,700 (7 percent) in 2006,

a major improvement from the 3.3 percent increase in the previous period. Job growth took place primarily in the agricultural, government, and professional and business services sectors.

Figure 17

Employment Change by County
(Percent)



Source: California Employment Development Department and Council of Economic Advisers



Employment by Sector

Why is this important?

Different economic sectors have different levels of wages as well as future growth potential in employment and income. Composition of occupations also varies among the different economic sectors. A more diversified regional economy will be less vulnerable to turbulent environments, such as recessions or disasters.

How are we doing?[3]

Between 2000 and 2006, total payroll jobs in the region increased from 6.8 million to 7.3 million. Among the sectors, professional and business services was the largest generating more than 1 million jobs.

In 2006, all of the region's twelve major economic sectors achieved job increases with the exception of manufacturing that experienced a very slight loss (Figure 18). The top five job generators in 2006 included professional and business services, construction, leisure and hospitality, retail trade and logistics.

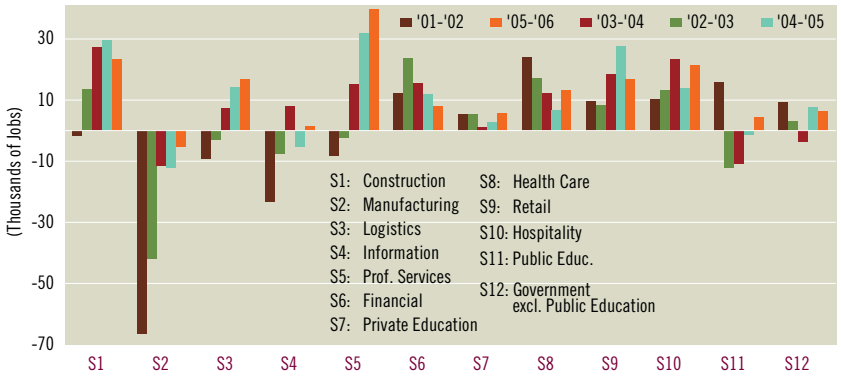
The professional and business services sector includes, for example, administrative support, legal, accounting, architecture, engineering, advertising and consulting services. It was the top job producer in 2006, increasing almost 40,000 jobs (3.9 percent). This more than doubled the gains of 15,000 jobs (1.6 percent) in 2004, after two consecutive years of combined losses of 10,000. About a third of the job gains in this sector were in employment services.

The construction sector added another 23,000 jobs in 2006, much lower than the average increase of 30,000 during the previous two years. Only 27 percent of the increase in 2006 took place in the Inland Empire compared to 40 percent in 2005. The rate of growth of almost 6 percent, though less than the 7.4 percent growth in 2005,

was still the highest among the twelve sectors followed by the professional and business services (3.9 percent), and leisure and hospitality (3.1 percent).

Figure 18

Employment Change by Selected Sectors, (2001-2006)



Financial = Finance, Insurance and Real Estate
Logistics = Wholesale Trade, Transportation and Warehousing
Information sector includes communications, publishing, motion picture production and internet service providers
Source: California Employment Development Department

After increasing 14,000 (2 percent) in 2005, the leisure and hospitality sector added another 21,500 (3.1 percent) jobs in 2006. Retail trade increased by more than 17,000 jobs (2.2 percent) in 2006, less than the average gains of 23,000 during the previous two years. As the housing market cooled down, gains in retail trade employment were reduced as related to furniture, building materials and garden equipment supplies. Retail trade is primarily a population-serving sector. With an increase of about 2 million residents since 2000, retail trade has been growing steadily throughout the recession and recovery.

The logistics sector includes transportation, warehousing and wholesale trade that have particularly strong ties to the region's international



trade activities. Transportation and warehousing includes truck, rail and air transportation, couriers and messengers, support services for transportation, and warehousing and storage. In 2006, the logistics sector provided about 620,000 jobs, or one in twelve jobs in the region. Among the total logistics jobs in the state, more than 54 percent were in Southern California. In 2006, the logistics sector added almost 17,000 jobs (2.8 percent), continuing to expand at a faster pace after its recovery in 2004.

Financial activities sector added only 8,000 jobs (or 1.8 percent) in 2006, moderating continuously from the gains of 24,000 (5.8 percent) in 2003 and 12,000 (2.7 percent) in 2005. Specifically, job growth in financial activities sector in Orange County almost stopped in 2006 after consecutive increases of an average of 7,500 per year since 2000. Growth in the financial activities sector also slowed in the Inland Empire counties, reducing its rate of growth from 7.1 percent to

5.9 percent from 2005 to 2006. These counties tend to be tied more closely to the housing market (than Los Angeles County) that continued to cool down in 2006.

Job gains in the health care sector reached 13,000 in 2006, doubling the amount in the previous period. Much of the gains experienced in 2006 were in outpatient health care service employment. Job growth in the government sector (excluding education) slowed somewhat from 7,680 to 6,500.

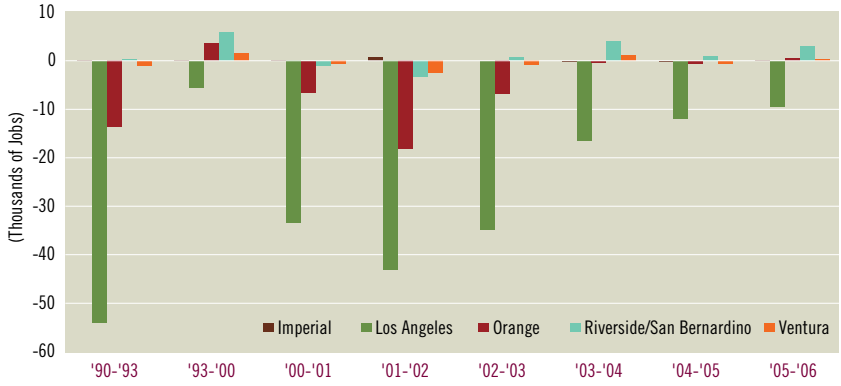
The two sectors that shifted from job losses to gains from 2005 to 2006 were the information and public education. After losing 5,400 jobs (2 percent) in 2005, the information sector gained 1,600 jobs (0.6 percent) in 2006. The public education sector also turned a loss of 1,280 jobs in 2005 to a gain of 4,300 in 2006.

Manufacturing Sector

Between 2000 and 2003, manufacturing employment at the national level dropped from 17.2 to 14.3 million, a loss of almost 3 million jobs. Between 2003 and 2006, it only lost 165,000 jobs. In the SCAG region, it has lost more than 330,000 manufacturing jobs since 1990, most of them (280,000) in durable manufacturing. Between 1990 and 1993, the manufacturing sector in Southern California lost an average of 56,000 jobs per year (Figure 19). After some recovery from 1994 to 1998, it began to decline again. Since 2004, losses in manufacturing began to stabilize. In 2006, the region lost 5,400 (0.7 percent) manufacturing jobs, the lowest loss since 1998. It should be noted that in 2006, the region continued to be the largest manufacturing center in the nation followed by Chicago and Detroit.

Figure 19

Manufacturing Employment Change
(Annual Average)



Source: California Employment Development Department

Unemployment

Why is this important?

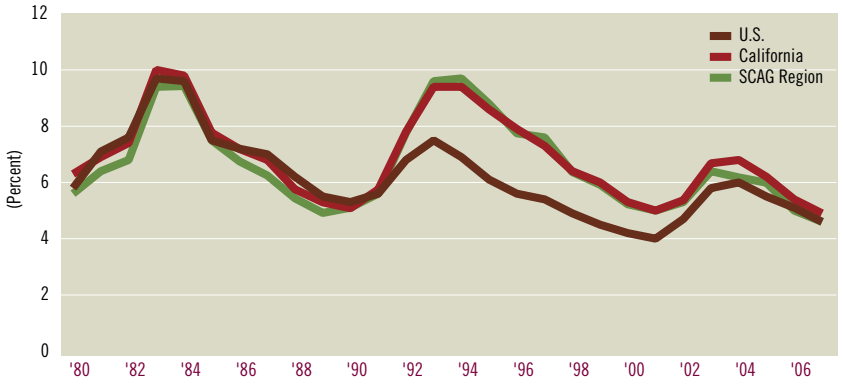
Unemployment significantly impacts the economic and social well-being of individuals and families. Groups with higher unemployment rates will naturally have higher poverty rates. Places with higher unemployment rates require higher levels of public assistance.

How are we doing?

In 2006, the region achieved its lowest unemployment rate (4.6 percent) since 1980. Equally important, the region finally closed its unemployment rate gap with respect to the national average. During the 1990s, unemployment rates in the region were much higher than that in the nation. From 2005 to 2006, the unemployment rate in the region declined further from 5 percent to 4.6 percent. During the same period, the unemployment rate fell from 5.1 to 4.6 percent nationally, while it decreased from 5.4 to 4.9 percent in the state (Figure 20).

Figure 20

Unemployment Rate



Source: California Employment Development Department

In 2006, unemployment rate declined in every county in the region. Notably, the unemployment rate in Los Angeles County dropped from 5.3 to 4.7 percent (Figure 21). Unemployment rates in the Inland Empire changed little particularly in Riverside County, from 5.1 to 5 percent. Imperial County has historically experienced much higher unemployment

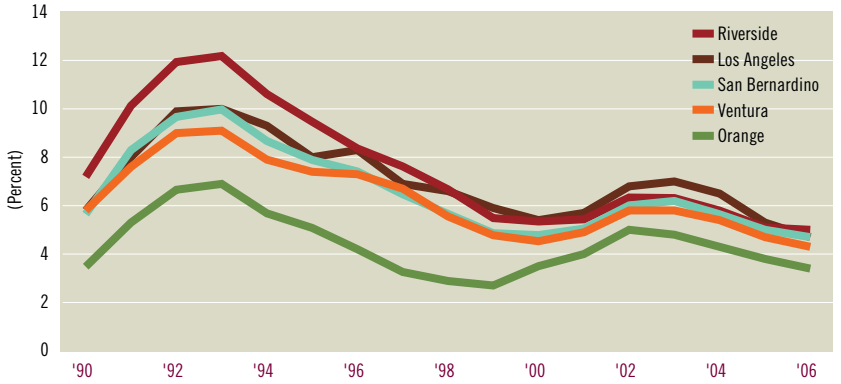




rates than the rest of the region (Figure 22). In 2006, its unemployment rate at 15.3 percent represented an improvement from the 17.4 percent just two years ago. At 3.4 percent, Orange County continued to have the lowest unemployment rate in the region in 2006 and one of the lowest in the nation. Ventura County's unemployment rate at 4.3 percent was the second lowest in the region.

Figure 21

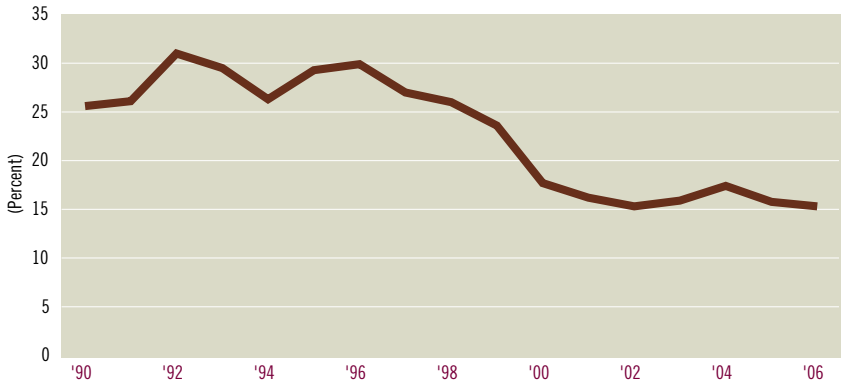
Unemployment Rate by County



Source: California Employment Development Department

Figure 22

Unemployment Rate - Imperial County



Source: California Employment Development Department

Average Wage per Job

Why is this important?

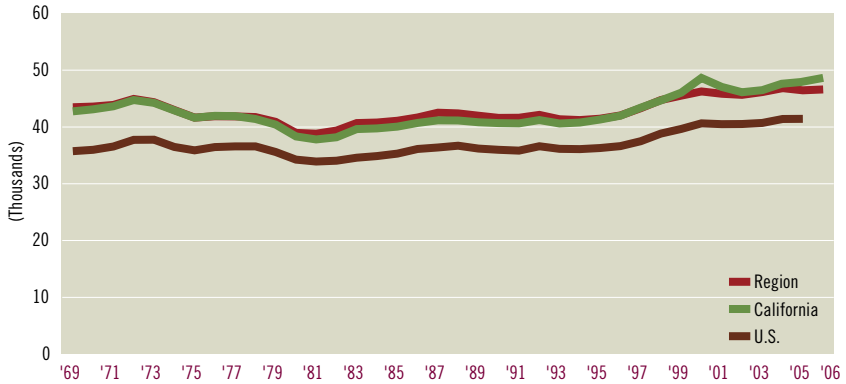
The average wage per job provides an indication of the overall quality of jobs available in the region. Higher average wage per job contributes to higher per capita income.

How are we doing?

Based on preliminary data, the real average wage per job (after adjusting for inflation) in the region was $46,414 in 2006, an increase of 0.31 percent from 2005 (Figure23).[4] The information sector continued to have the highest average wage per job ($78,420) followed by financial activities ($73,780), while the leisure and hospitality sector had the lowest average wage per job ($24,690) followed by retail trade ($29,580).

Figure 23

Real Average Wage Per Job
(2006 Dollars)



** U.S. Data is not available for 2006*
Source: U.S. Bureau of Economic Analysis

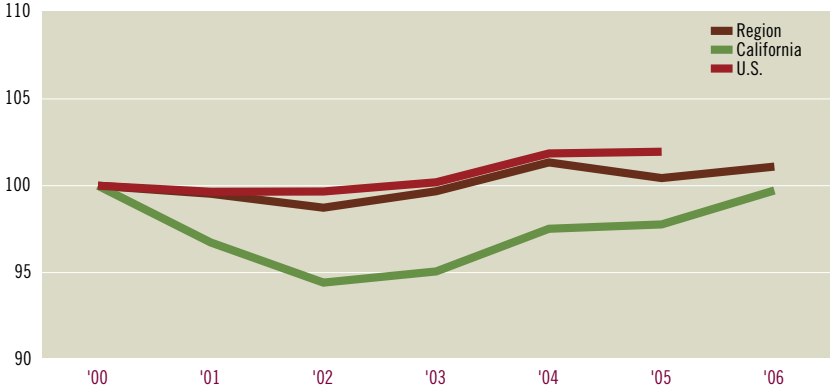
Between 2000 and 2006, real average wage per job was somewhat stagnant at the national, state and regional levels. In 2006, the real average wage per job in the region was only slightly above its 2000 level (Figure 24).





Figure 24

Growth of Real Average Wage Per Job
(2000 as the Base Year=100)

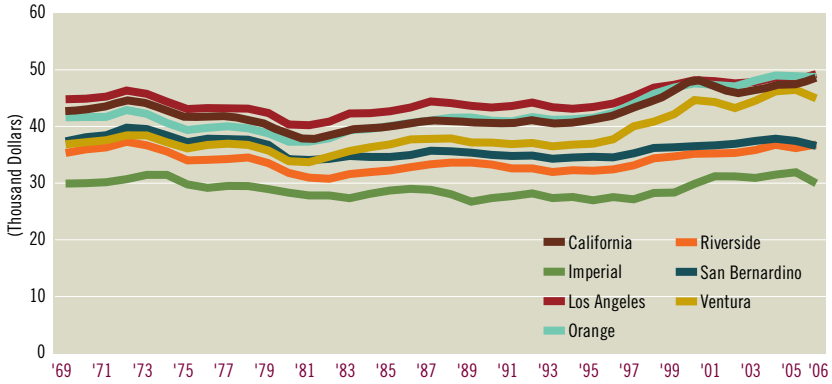


**U.S. Data is not available for 2006*
Source: U.S. Bureau of Economic Analysis and California Economic Development Department

Within the region, Ventura and Orange counties accomplished the most improvements in their real average wages per job between 1969 and 2006, increasing by 23 and 18 percent respectively. During the same period, the real average wages per job in Riverside and San Bernardino counties remained almost unchanged. In 2005, Orange County had the highest average wage per job while Imperial had the lowest (Figure 25).

Figure 25

Real Average Wage Per Job
(2006 Dollars)



Source: U.S. Bureau of Economic Analysis and Employment Development Department Quarterly Census of Employment and Wages

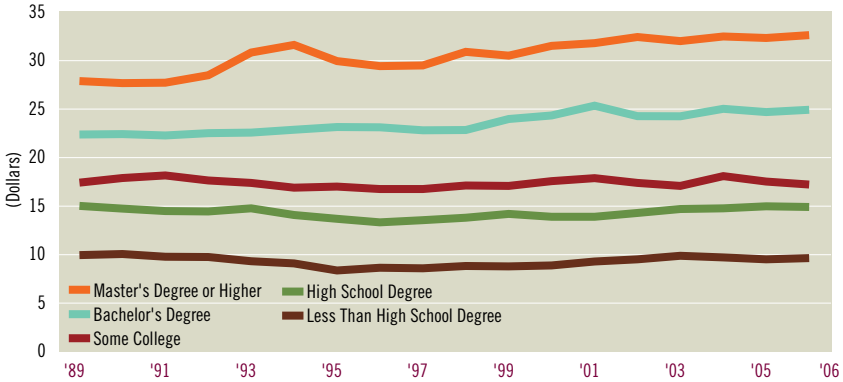
Based on statewide data, median hourly wage has been closely correlated with the worker's educational attainment. Since 1989, only



workers with at least a bachelor's degree have been able to achieve steady increases in their median hourly wages (Figure 26). In 2006, the median hourly wages for workers without a bachelor's degree remained essentially the same as their respective 1989 levels.[5]

Figure 26

California Median Hourly Wage by Educational Attainment
(2006 Dollars)



Source: California Budget Project Analysis of Current Population Survey Data

In 2005 (the most current year where comparative data for metropolitan regions are available), the SCAG region ranked last in average wage per job at about $44,277 among the 9 largest metropolitan regions (see Figure 123 page 146). The San Francisco Bay Area managed to achieve the highest increase (2.7 percent) in 2005, and continued to have the highest average wage per job at approximately $58,800 in 2005, followed by the New York region at about $56,000.

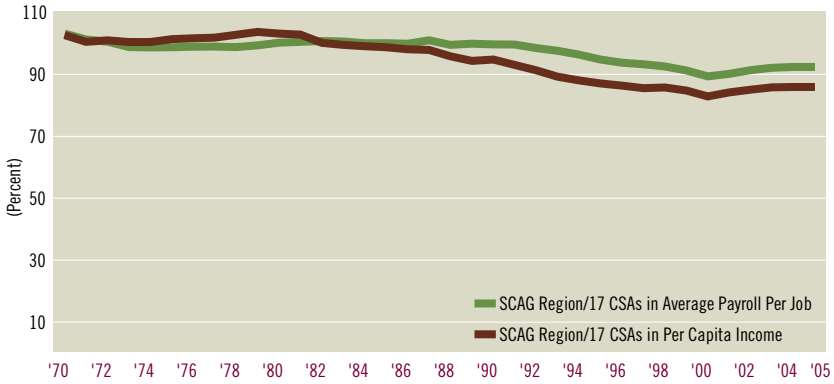
In 2005, only five of the nine metropolitan regions achieved higher real average payrolls per job than their respective 2000 levels (see Figure 124 page 146). Between 2000 and 2005, the Washington D.C. region achieved the best performance with an almost 6 percent increase, followed by the Chicago and Philadelphia regions. The SCAG region had an average performance with only a 0.4 percent increase. During this period, the San Francisco Bay Area lost the most ground with its 2005 income dropping 6 percent below its 2000 level.

Prior to 1990, the SCAG region maintained an average wage per job almost the same as the average of the 17 largest metropolitan regions (Figure 27). Between 1990 and 2000, it declined relative to the average of the 17 largest metropolitan regions from about 100 percent to 89 percent. During the recent recession (particularly between 2000 and 2003), several of the largest metropolitan regions, including San Francisco Bay Area, New York and Boston, suffered much larger losses in average wage per job than the SCAG region. Hence, from 2000 to 2005, the average wage per job in the SCAG region relative to the average of the 17 largest metropolitan regions improved somewhat from about 89 percent to 92 percent.



Figure 27

SCAG Region vs. 17 Largest Metropolitan Regions
(Average Payroll Per Job and Per Capita Personal Income)



** Defined as the CSAs (Combined Statistical Areas)*
Source: U.S. Bureau of Economic Analysis

Income

Why is this important?

Real personal income per capita (with inflation adjustment) is one of the most important indicators of economic well-being. An increase in real per capita income is generally associated with improving social and economic indicators such as reduced poverty and an increase in educational attainment. Median household income reflects the well-being of households that are in the median position – their incomes are higher than half of the total households but lower than the other half. Total personal income provides an indication of an area's consumption capacity as well as the strength of its economy.

How are we doing?

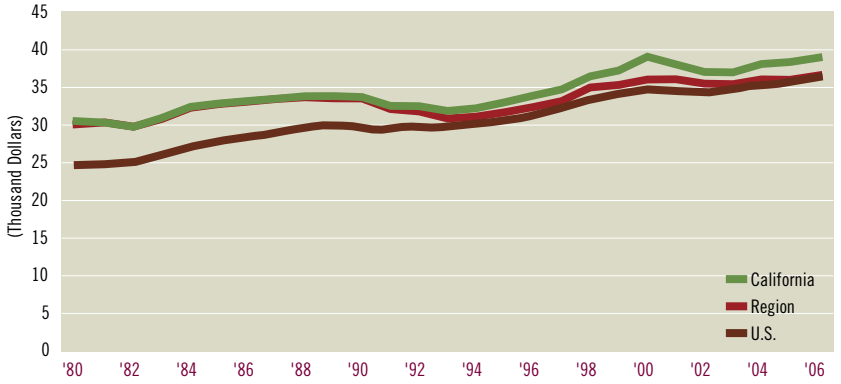
Since 1992, per capita income in the region has been tracking closely that of the nation (Figure 28). In 2006, due to continued economic



recovery and expansion, real personal income per capita in the region increased by 1.3 percent to reach $36,614, while it also increased for the nation (1.9 percent to reach $36,276) as well as the state (1.5 percent to reach $38,956) (Figure 29). The increases were generally parallel with the improvements in the job market.

Figure 28

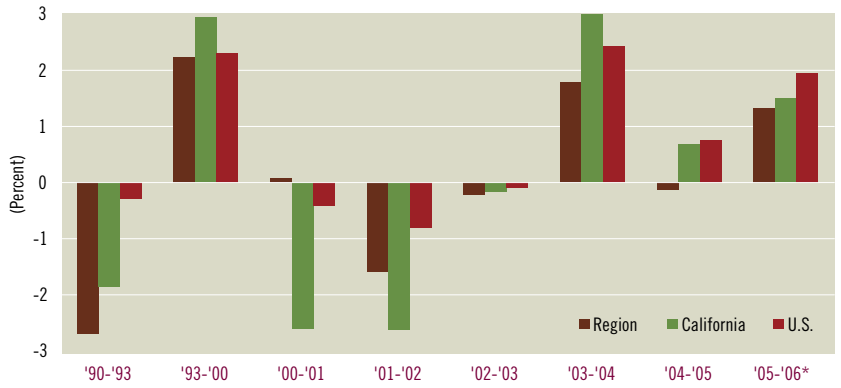
Real Personal Income Per Capita
(2006 Dollars)



Source: U.S. Bureau of Economic Analysis

Figure 29

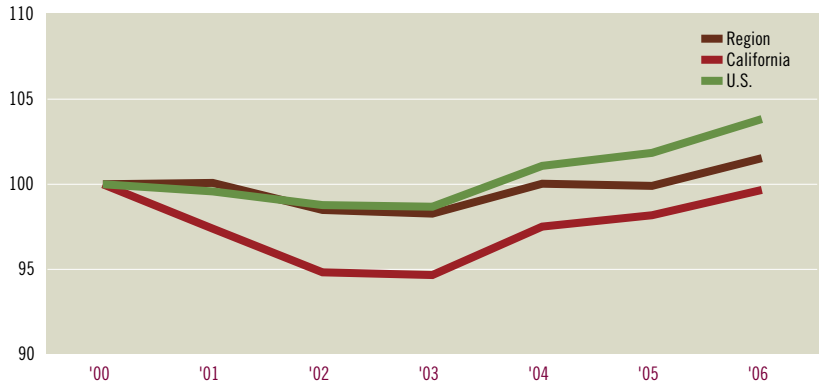
Growth of Real Personal Income Per Capita
(Annual Average)



** Data for 2006 are preliminary*
Source: U.S. Bureau of Economic Analysis

Figure 30

Growth of Real Personal Income Per Capita
(2000 as the Base Year = 100)



**Data for 2006 are preliminary*
Source: U.S. Bureau of Economic Analysis

Despite the gains in 2006, real per capita income increased only 1.5 percent in the region between 2000 and 2006 due to the consecutive declines in 2002 and 2003 (Figure 30). In 2006, real per capita income for the state was the same as its 2000 level.



Among the 17 largest metropolitan regions in the nation, the SCAG region ranked 16th in terms of per capita income in 2005 just ahead of the Atlanta region (see Figure 125 page 147). Over the past three decades, the SCAG region's per capita income ranking dropped from the 4th highest in 1970 to 7th highest in 1990 and 16th place in 2000. Since 1982, the SCAG region's per capita personal income has been below the average of the 17 largest metropolitan regions, and the gap had widened until 2000. In 2005, per capita personal income in the SCAG region was 86 percent of the average of the 17 largest metropolitan regions, improving noticeably from the lowest level of 83 percent in 2000 (see Figure 27 page 36).

In 2005, only two of the nine metropolitan regions achieved higher real per capita income than their respective 2000 levels (see Figure 126 page 147). Between 2000 and 2005, the Washington D.C. region achieved the best performance with an almost 5 percent increase, followed by the Philadelphia region with a 3 percent improvement. The

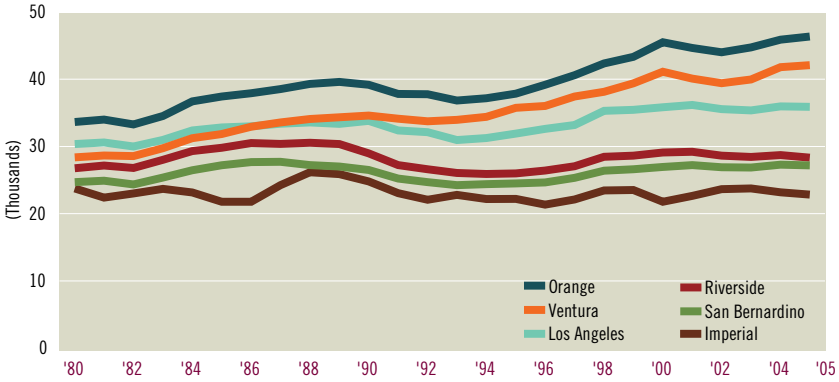
SCAG region had an average performance in 2005 just below its 2000 level. During this period, the San Francisco Bay Area lost the most ground with only 94 percent of its 2000 level in 2005.

From 2004 to 2005, real personal income per capita changed slightly in Orange and Imperial counties while it stayed almost the same in the remaining four counties in the region (Figure 31). Per capita income in Imperial County declined by 1.5 percent in 2005 while it increased by 1.1 percent in Orange County. In 2005, the real per capita incomes in Imperial and Riverside counties were still lower than their respective 1990 levels. In the region, Orange County continued to have the highest per capita personal income ($44,453) in 2005 while Imperial County had the lowest ($21,899).



Figure 31

Real Personal Income Per Capita by County
(2006 Dollars)



Source: U.S. Bureau of Economic Analysis

Total Personal Income

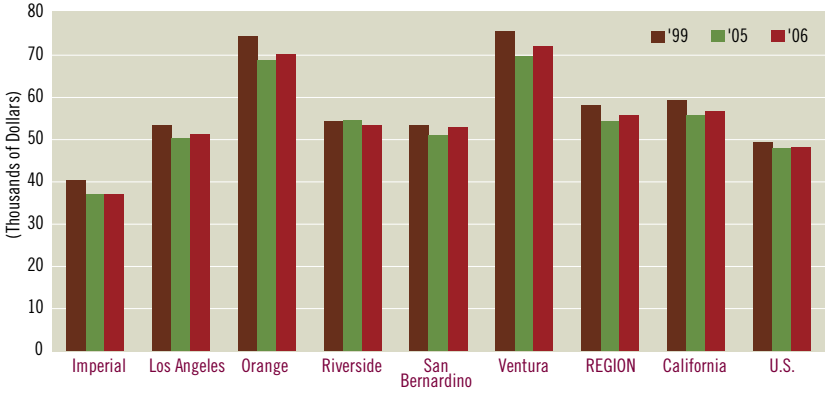
Between 2000 and 2005, the SCAG region performed at a better level in its growth of total personal income than the per capita personal income. During this period, SCAG region's share of the total personal income in the nation increased by 0.22 percent, following the Washington D.C area (0.24 percent). Among the nine largest metropolitan regions in the nation, five experienced declining shares during the five year period (see Figure 127 page 148). The San Francisco Bay Area suffered the worse performance with a sharp decrease of almost 0.5 percent in its share, while the New York region experienced a decline of 0.41 percent. However, during the 1990s, the SCAG region suffered the largest loss in its national share of 0.76 percent while the San Francisco Bay Area attained the largest gain of 0.62 percent. Among the large metropolitan regions, because the SCAG region generally had one of the highest population growth rates, it would generally rank lower when comparing based on per capita instead of total personal income.

Household Income and Earnings

Household income includes income from all sources for all members of the household. Nationally, real median household income at $48,201 in 2006 was slightly higher (0.7 percent) than the 2005 level at $47,845.[6] In California, real median household income in 2006 at $56,645 was 1.7 percent higher than the previous year. In 2006, real median household income in the region at $55,678 represented a 2.6 percent increase from 2005. Nevertheless, it was 4 percent below the 1999 level. Between 1999 and 2006, real median household income declined in every county within the region, as well as at the state and national levels (Figure 32). During the 1990s, real median household income in the region also declined slightly contrary to the national trend.[7]

Figure 32

Median Household Income
(2006 Dollars)



Source: U.S. Census Bureau, Current Population Survey (for U.S. only), 2000 Census, 2005 and 2006 American Community Survey

Within the household income, earnings from work represent the largest component. Earnings are the sum of wage and salary income and self-employment income. The 2006 American Community Survey (ACS) showed that 82 percent of aggregate household income came from



earnings, however, earnings trends do not necessarily follow the income trends. In the region, while median household income in 2006 rose by 2.6 percent, the real median earnings of men and women who worked full-time, year-round declined by 4 percent and 3 percent, respectively.

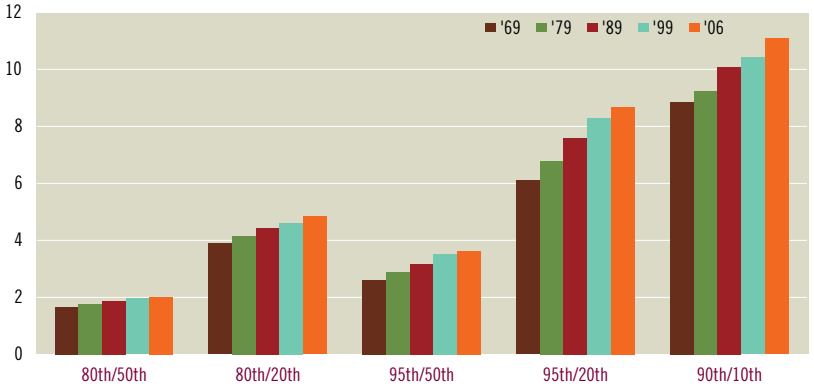
Income Inequality

One way to measure income inequality is through the household income ratios among households at different percentiles. For example, the income level for the 90th percentile indicates how the highest income group fared in a given year while the 10th percentile indicates the lowest income group. The 90th percentile is the level of income for a given area that 90 percent of households are beneath. The 10th percentile is the level of income that 10 percent of households are beneath. At the national level, income inequality has been increasing steadily since 1969 (Figure 33). Between 1979 and 1999, the SCAG region generally had a slightly higher income inequality than the nation when comparing household income ratios.[8] In 2006, income inequality at the national level continued to widen. For example, the very rich households (90th percentile) in 2006 had an income just over 11 times

that of the income for the very poor households (10th percentile), an increase from just over 10 times in 1995.[9]

Figure 33

Household Income Ratios, U.S.



Source: U.S. Census Bureau, Current Population Reports

Poverty

Why is this important?

The poverty rate measures the proportion of a population that has an income below the poverty line and therefore lacks the economic resources needed to support a minimum acceptable standard of living. The poverty line is adjusted for family size. Poverty not only results in current economic hardship, but also limits an individual's and family's future development opportunities. A higher poverty rate is both a cause, as well as an outcome, of lower educational attainment and higher unemployment rates. The extent of poverty also reflects the need for various kinds of public assistance. Poverty among children is of particular concern. Poverty in childhood is associated with a higher risk for dropping out of school, poor health, teenage pregnancy and a long-term economic disadvantage as adults.

How are we doing?

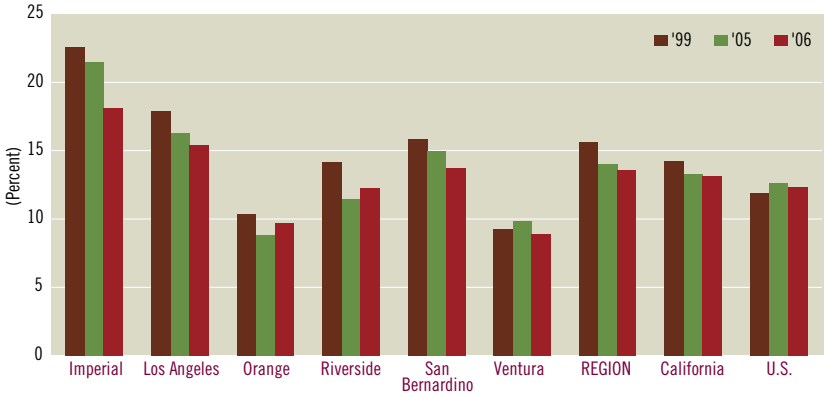
In 2006, a family of four (including two children) earning less than $20,444 a year was classified as living in poverty, compared with $15,769 for a family of three with one child; $13,500 for a household of two with no children; and $10,488 for unrelated individuals.[10] Between 2005 and 2006, the poverty rate for all people lowered slightly at the national, state and regional level. Nationally, the poverty rate of 12.3 percent in 2006 was slightly down from 12.6 percent in 2005. In California, the poverty rate for all people at 13.2 percent in 2005, a slight decrease from 13.3 percent in 2005.

In the SCAG region, 13.6 percent of residents lived in poverty in 2006, a slight reduction from 2005 (14 percent) though continuing to be slightly higher than that of the state (13.2 percent) and the nation (13.3 percent) (Figure 34). In addition, 19.2 percent of children under 18 were below the poverty line in 2006, a slight decline from 2005 (19.7 percent) (Figure 35). The poverty rate was highest for female-headed households with children under 18 years old (32 percent), and lowest for married couple families (6.7 percent).[11] In 2006, Orange County continued to maintain the lowest poverty rate for all residents within the region of 9.7 percent while Imperial County experienced the highest at 18 percent.



Figure 34

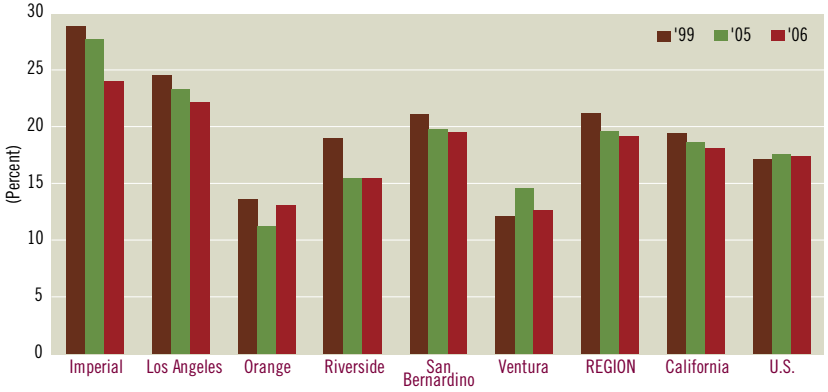
Persons Living in Poverty



Source: U.S. Census Bureau, Current Population Survey (for U.S. only), 2000 Census, 2005 and 2006 American Community Survey

Figure 35

Children Under 18 Living in Poverty

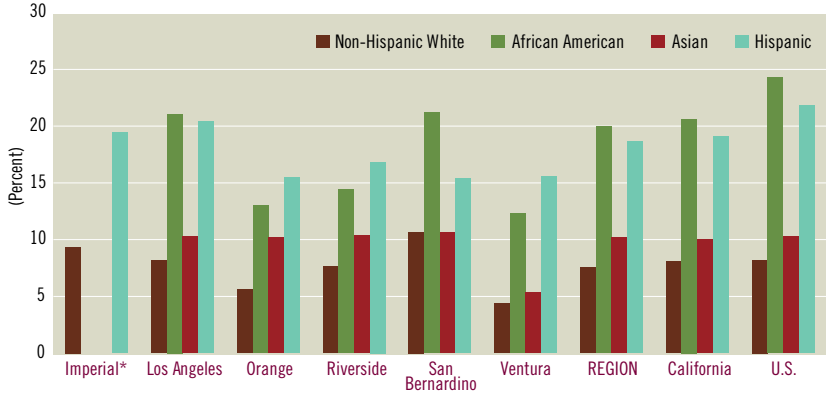


Source: U.S. Census Bureau, Current Population Survey (for U.S. only), 2000 Census, 2005 and 2006 American Community Survey

Within the region, African American and Hispanic residents experienced significantly higher poverty rates than their non-Hispanic White and Asian counterparts. Specifically, 20 and 19 percent of African American and Hispanic residents respectively lived in poverty in 2006 compared to only 10 percent of Asian and less than 8 percent of non-Hispanic white residents (Figure 36).

Figure 36

Persons Living in Poverty by Race/Ethnicity, 2006



**Data for African American and Asian is not available for Imperial County*
Source: U.S. Census Bureau, Current Population Survey (for U.S. only) and 2006 American Community Survey

In 2006, the SCAG region continued to have the highest poverty rate (13.6 percent) for all people among the nine largest metropolitan regions in the nation followed by the Detroit region (13.1 percent), while the Washington D.C. region achieved the lowest poverty rate of only 7.7 percent (see Figure 128 page 148).

Taxable Sales

Why is this important?

Taxable sales provide important revenue sources for state and local governments and special districts. While employment and income are measures on the production side, taxable sales measures the level of

consumption activities. Taxable sales tend to follow closely with trends in personal income, job market and consumer confidence.

How are we doing?

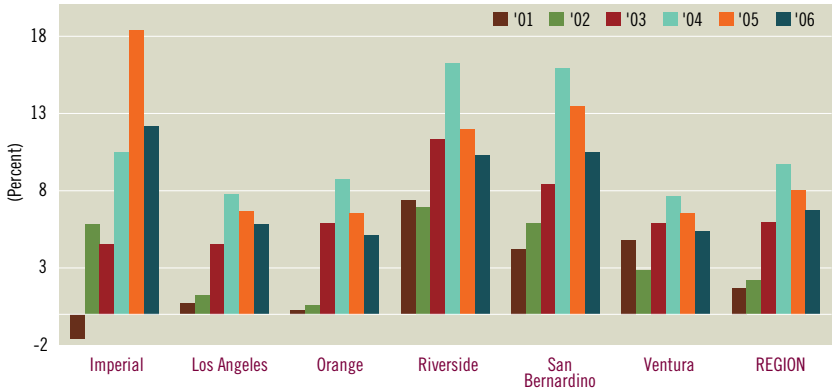
In 2006, total taxable sales in the region were estimated to increase by about 6.7 percent from 2005, slowing down from the 8 percent growth between 2004 and 2005 (Figure 37).[12] Nevertheless, the 6.7 percent rate of growth was still somewhat higher than the average (6 percent) during the past ten years.

From 2000 to 2002, total taxable sales in the region increased by only about 2 percent per year. The wealth effects due to significant increases in home equity, particularly during 2003 and 2004, contributed to the accelerated growth in taxable sales. During these two years, total taxable sales in the region grew 2 to 3 percent above the growth rate of its total personal income. The three inland counties within the region, supported by faster population growth, all achieved more than 10 percent growth in their taxable sales in 2006, almost doubling the corresponding rates for the three coastal counties. Imperial County (12.5 percent) had the highest rate of growth in taxable sales in 2006 followed by San Bernardino (10.5 percent) and Riverside (10.3 percent) counties.



Figure 37

Taxable Sales
(Change from Previous Year)



**Change between 2005 and 2006 is based on data for the first two quarters*
Source: California State Board of Equalization

International Trade

Why is this important?

International trade includes export and import activities that create job opportunities and bring income into the region. Though exporting goods produced in Southern California generates higher net economic benefits for the region, imports can create economic benefits too. The region's role as a major transshipment center linking domestic and global markets is also of national and international significance.

How are we doing?

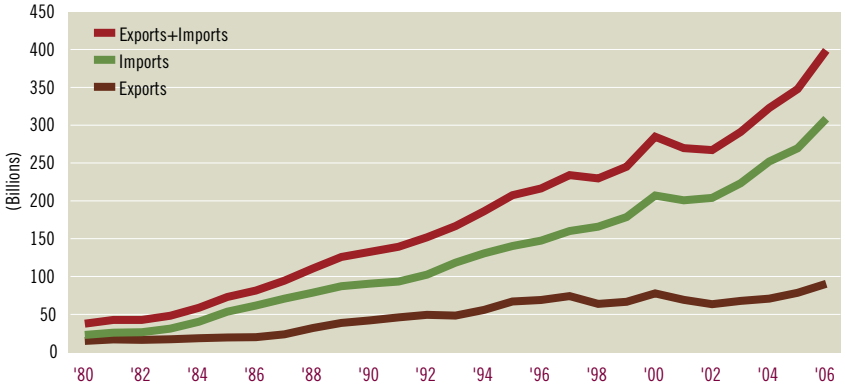
Between 2005 and 2006, total trade through the Los Angeles Customs District (LACD) increased from $348 billion to $399 billion (or 15

percent), a new record level. This almost doubled the rate of growth during the previous period (Figure 38). Among the $51 billion increase, $39 billion was from imports, and another $12 billion from exports.

Among the $399 billion in trade passing through the LACD, imports accounted for 77 percent, exports 23 percent. In 2006, among the $90 billion exports out of the LACD, 46 percent ($41 billion) was by air and the rest 54 percent was by sea. Exports by air are generally smaller and higher value goods. On the other hand, among the $309 billion imports into the LACD, 87 percent were by sea with the other 13 percent by air.

Figure 38

Exports and Imports - LA Customs District
(Current Dollars)



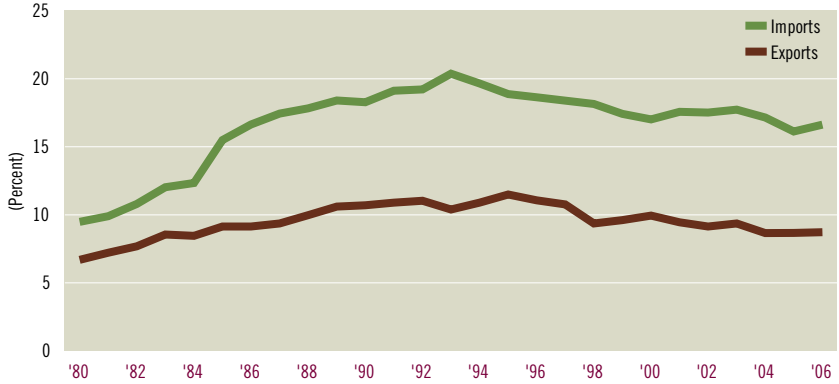
Source: U.S. Census Bureau

The region's prominence in international trade has been fostered through its large domestic market, global ties through its growing Asian and Hispanic communities, strategic location, and excellent trade infrastructure serving the rest of the nation. Total trade through the LACD increased from less than $40 billion in 1980 to $399 billion in 2006. The region's direct employment in international trade also increased from about 175,000 in 1980 to 485,000 in 2006, which represents an increase of 35,000 jobs from 2005.[13] Trade jobs are found in a variety of activities, including vessel operation, cargo handling, surface transportation (truck and rail), trade finance, freight forwarding, custom brokerage, insurance, etc.

Between 1980 and 2006, the share of the LACD's trade value of the U.S. total grew from about 8 percent to its peak of 16 percent in 1993 and then began declining to 13.8 percent in 2006. The share of the LACD's export of the U.S. total was just below 9 percent in 2006 while its share of imports was close to 17 percent (Figure 39). In 2006, the LACD retained the number one ranking in the U.S in terms of total trade value, followed by the New York ($295 billion) and Detroit ($238 billion) customs districts.

Figure 39

Exports and Imports - LA Customs District
(Percent of U.S.)



Source: U.S. Census Bureau



Between 1993 and 2006, the share of multi-family units with building permits increased from 20 percent to 36 percent.

Housing Construction

Why is this important?

The magnitude of housing construction, population growth, and new households is a major determinant of housing prices. Different geographical distributions of new housing result in different needs for support infrastructure and services. The residential construction industry is also an important source of employment and corporate profit in the region.

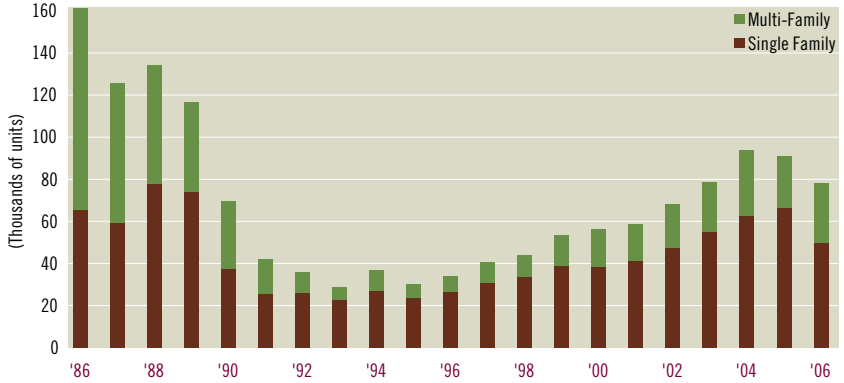
How are we doing?

From 2005 to 2006, the total number of building permits issued in the region fell by 14 percent from 91,000 units to 78,200 units that were just below the 2003 level (Figure 40). This was the largest annual decline since 1990. Notably, the decline was only within the single-family sector in which the number of permits dropped by 25 percent (or 16,600 units) in one year. Permits for multi-family units achieved a 15 percent (or 3,700 units) increase but was still below the 2004 level. Between 1995 and 2004, housing construction activities in the region experienced a major recovery. After reaching its peak of 93,700 units in 2004, the number of permits issued has declined for two consecutive years.



Figure 40

Residential Building Permit Activity



Source: Construction Industry Research Board

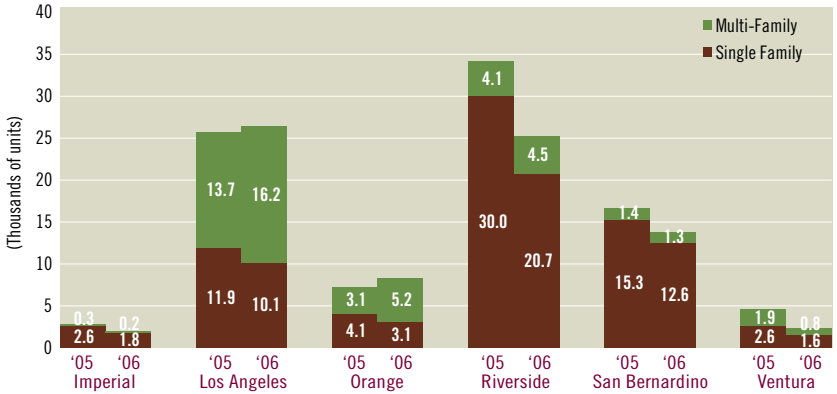
Within the region, the decline in building permits was concentrated in the Inland Empire (Figure 41). Specifically, between 2005 and 2006, the number of permits issued dropped by 9,000 units (26 percent) alone in Riverside County concentrating in the single-family sector. It also decreased by 2,800 units (17 percent) in San Bernardino County. The performance of the three costal counties varied. While the number of permits issued fell by 2,100 units (or 47 percent) in Ventura County, it increased by 700 units (3 percent) in Los Angeles

County, and 1,100 units (15 percent) in Orange County concentrating in multi-family housing.

As to the distribution of permits within the region, the Inland Empire counties accounted for about half of the total permits issued in 2006, a decline from 58 percent in the previous year. In particular, Los Angeles County led among the six counties in the total number of permits issued (26,341), close to 34 percent of the regional total, followed closely by Riverside County (25,246 or 32 percent).

Figure 41

Residential Building Permits by Housing Types, 2005-2006



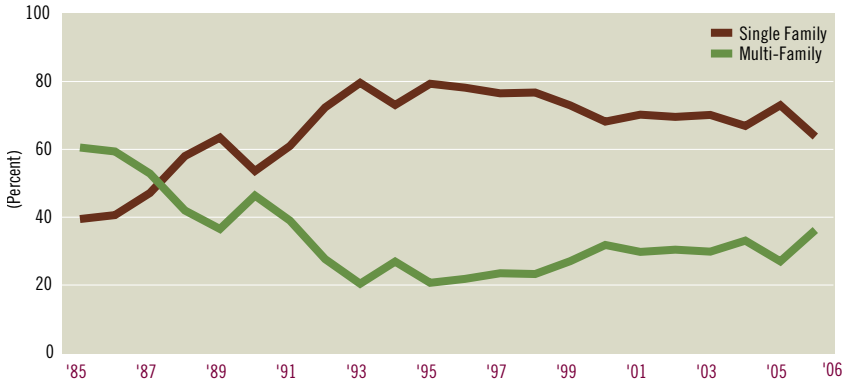
Source: Construction Industry Research Board

Among the total permits issued in 2006, about 36 percent were for multi-family housing, an increase from 27 percent in 2005. *Between 1993 and 2006, the share of multi-family units was on an upward trend increasing from 20 percent to 36 percent, while the share of single family units declined from 80 percent to 64 percent (Figure 42).*

Within the region, there continued to be significant differences between the coastal and inland counties with respect to the share of multi-family housing permits. Specifically, in both Los Angeles and Orange counties, more than 60 percent of the building permits issues were in multi-family though Ventura County's share was only 34 percent. In the remaining three inland counties, 80 percent or higher of the total permits were for single-family housing construction.

Figure 42

Composition of Residential Building Permits, 1985-2006



Source: Construction Industry Research Board

Since 2000, the continuous increase of permit activities (except for 2005 and 2006) and the recent slowdown in population growth have narrowed the gap significantly between housing supply and demand.

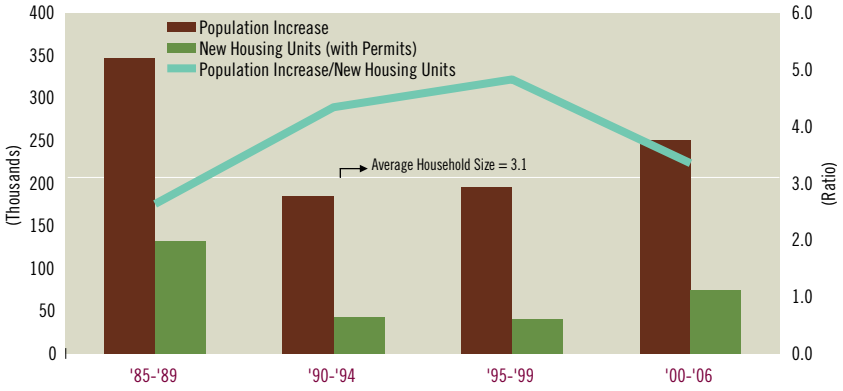




For example, yearly population in the region increased by about 293,000 between 2000 and 2006 compared to only 195,000 between 1995 and 1999, a rise of about 50 percent. However, annual building permits issued during the period from 2000 to 2006 were over 72,000, an 80 percent increase from about 40,000 units in the previous 5-year period (Figure 43). Hence, the ratio between population growth and new housing units with permits dropped markedly from 4.8 persons per unit (during the period between 1995 and 1999) to 3.4 persons per unit (during the period between 2000 and 2006), though still somewhat higher than the average household size of 3.1 persons per unit.

Figure 43

Population Increase vs. Building Permits, 1985-2006
(Annual Average)

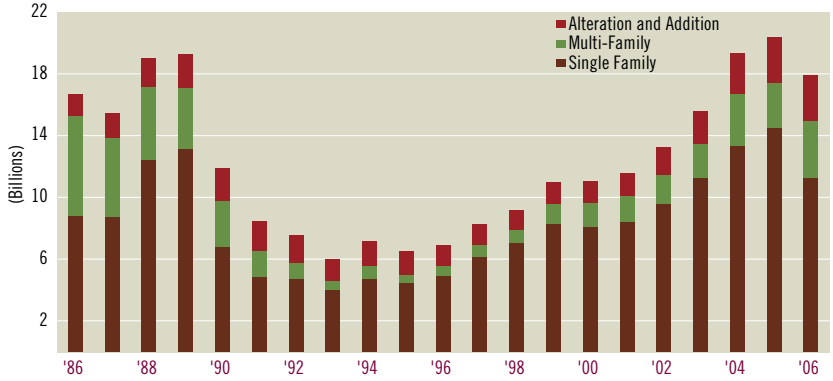


Source: California Department of Finance and Construction Industry Research Board

Total valuation of permits in 2006 reached almost $18 billion, a decline of $2.5 billion (22 percent). This was the first decline since 1994 and was primarily concentrated in single-family housing (Figure 44).

Figure 44

Valuation of Residential Building Permits



Source: Construction Industry Research Board



Homeownership

Why is this important?

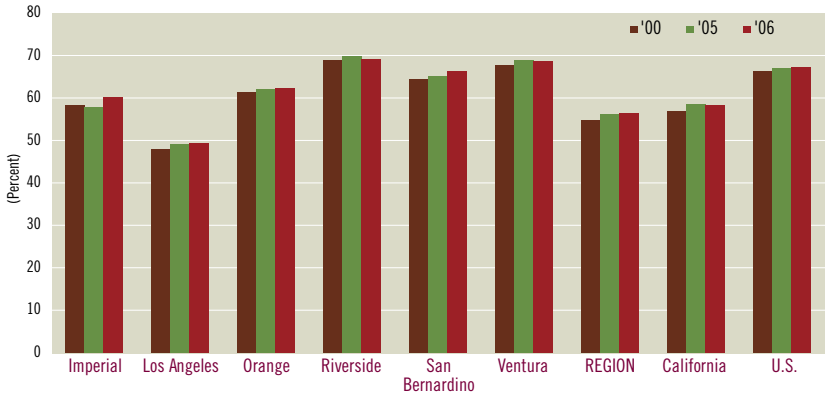
Owning one's home has long been considered an important part of the American Dream. The equity generated from homeownership represents almost 45 percent of total household wealth.[1] Homeownership has also been an important pathway particularly for working-class families to accumulate enough wealth to ascend into the middle class.[2] Higher homeownership rates also help to improve neighborhood stability.

How are we doing?

From 2005 to 2006, homeownership rates increased very slightly at the regional and national levels, and remained unchanged at the state level. *Since 2000, homeownership in the region has been increasing steadily to reach close to 57 percent, an increase of about 2 percentage points (Figure 45).* Within the region, every county achieved an increase in homeownership during the six year period. Homeownership in Riverside County, though it decreased slightly by 0.5 percent from 2005, reached 69.2 percent in 2006 and was still the highest in the region followed by Ventura County with 68.7 percent. Riverside and Ventura counties are the only two counties with homeownership higher than the national average at 67.3 percent. Between 2005 and 2006, there were notable increases in homeownership rate in San Bernardino County, from 65.1 percent to 66.4 percent, approaching the national average. In 2006, Imperial County's homeownership also reached over 60 percent for the first time. Homeownership in Los Angeles County increased from 47.9 percent in 2000 to over 49 percent in 2006. However, it continued to have the lowest homeownership rate in the region.

Figure 45

Homeownership Rates



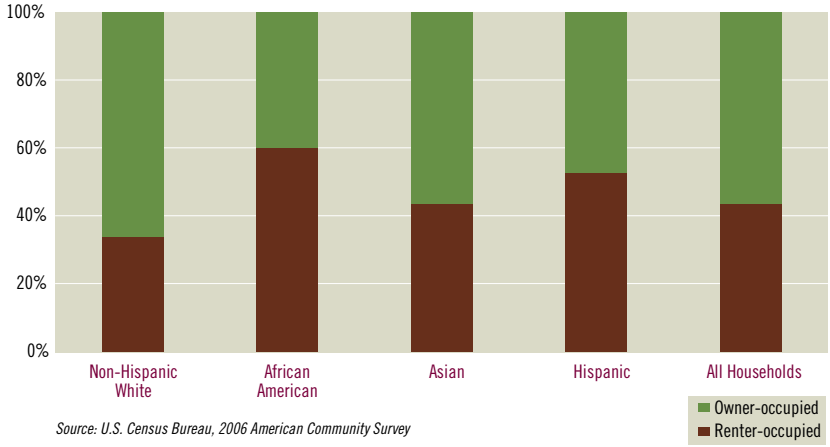
Source: U.S. Census Bureau, 2000 Census, 2005 and 2006 American Community Survey

Among the 9 largest metropolitan regions in the nation, the SCAG region continued to have the second lowest homeownership, just above the New York region (56 percent). Detroit region had the highest homeownership rate at 74 percent (see Figure 129 page 149).

Since 2000, the extended homeownership boom attracted many moderate- and higher-income households from the rental market. As a result, rental markets have become further skewed toward lower-income and minority households.[3] Within the region, 44 percent of the households relied on rental housing in 2006. Among the different racial/ethnic groups, 60 percent of African American households depended on rental housing, followed by Hispanic households with 53 percent. For the non-Hispanic White households, only 34 percent were renters. Improving Hispanic and recent immigrant homeownership achievement will be an important challenge since they account for well over 90 percent of the future household growth in the region.

Figure 46

Share of Owner or Renter Households by Race/ Ethnicity of Householder, 2006



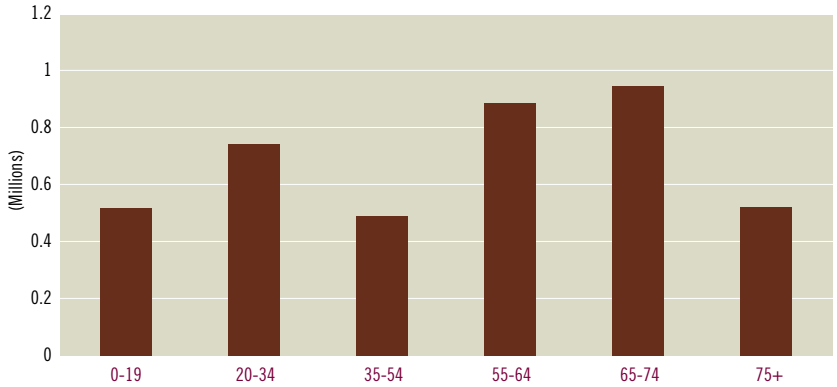
Source: U.S. Census Bureau, 2006 American Community Survey

Among the different age groups, those between 20 and 34 years old generally depend the most on rental housing. Population projections for the region indicated that by 2025 there will be approximately three-quarter million increase in residents aged 20-34, pointing to significant demand ahead for rental housing.



Figure 47

Change in Population by Age Group, 2005-2025



Source: Southern California Association of Governments

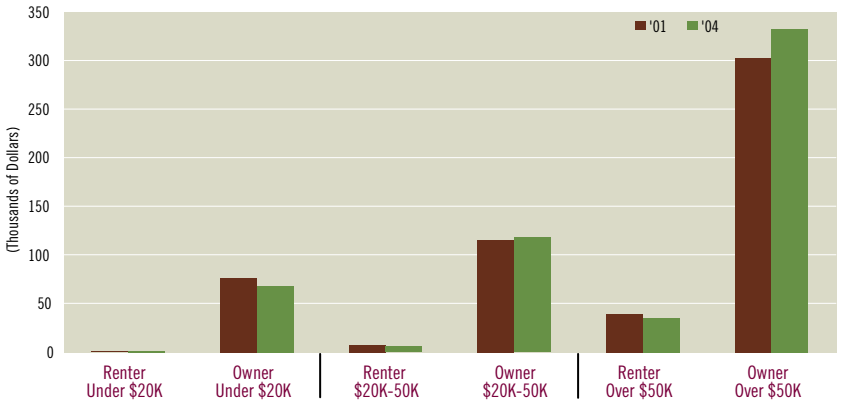
Close to half of the total household wealth is held as home equity through homeownership. This is partially the reason that renters have significantly less wealth than homeowners even within the same household income category. Based on national data in 2004, for households with an annual income between $20,000 and $50,000, the median wealth of renter households was only $6,000 while it was $118,000 for owner households, almost 20 times higher (Figure 48). The wealth disparities between renter and owner households also grew larger in recent years. Since 2001, the run-up of home prices has benefited many existing homeowners in terms of rising home equity. On the other hand, the continuing rise of rent has been draining the financial resources of renters. Consequently, between 2001 and 2004, the wealth disparities between homeowners and renters generally widened, particularly for households with income higher than $20,000. For example, for households with income over $50,000, the median wealth for owner households grew from $307,000 to $332,000 between 2001 and 2004, while it declined from $39,000 to $35,000 for renter households. Since home appreciations in the SCAG region were considerably higher than



that in the nation, the corresponding wealth disparities are estimated to be larger in the region. *The significant and widening wealth disparities between renter and owner households further underscore the importance of homeownership.*

Figure 48

Median Wealth of Renter and Owner Households by Household Income



Source: Joint Center for Housing Studies of Harvard University, 2007, The State of the Nation's Housing

Housing Affordability

Why is this important?

Housing affordability provides an indication of the level of financial burden of housing expenses. Housing constitutes the largest share of household expenditures among all consumption items. When a household spends too much on housing, there is not enough left to meet other household needs, such as transportation, healthcare or education. Housing affordability also affects decisions as to where to live. Hence, housing affordability is an indicator reflecting the fundamental well-being of households. In addition, it influences business decisions to locate or expand in the region. Lack of affordable housing will result in a weakening of our region's attractiveness and competitiveness.

How are we doing?

Housing affordability can be measured by the share of first-time homebuyers who can afford to purchase an entry-level home at 85 percent of the median price or by the share of household income spent on housing. *By both measures, housing affordability continued to decline throughout Southern California and reached a record low in 2006.*

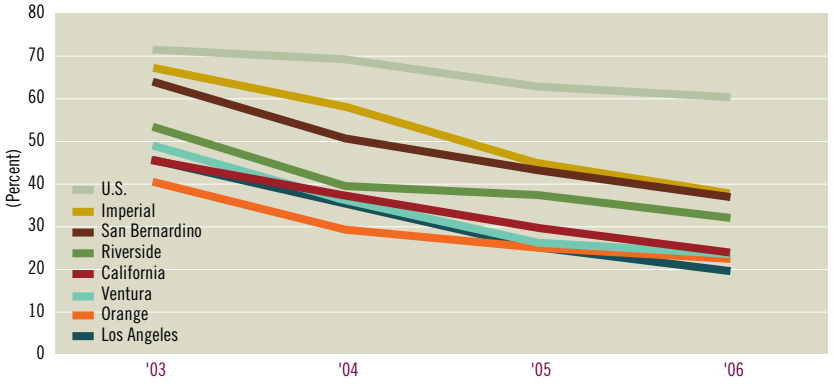
First-time buyers typically purchase an entry-level home at 85 percent of the median home price.[4] Between 2003 and 2006, the share of first time buyers who can afford to purchase an entry-level home dropped by about a half in the three coastal counties, from more than 40 percent to just over 20 percent. During the same period, it dropped from 64 to 37 percent in San Bernardino County and from 53 to 32 percent in Riverside County. *While 60 percent of the first-time homebuyers in the nation can afford an entry-level home, less than 30 percent of the region's first-time homebuyers could achieve the same.* Since 2003, the housing

affordability gap between the region and the nation has widened for the first-time homebuyers (Figure 49).

Figure 49

Housing Affordability for First-time Buyers

(Percent of Households Who Can Afford to Purchase a Home at 85% of the Median-Priced Home)



Source: California Association of Realtors, estimates for Imperial

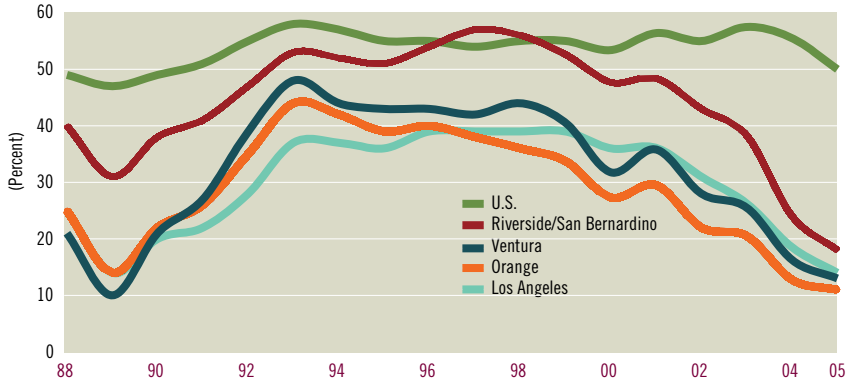
As to the general population, the share of households able to afford a median-priced home in the three coastal counties (Los Angeles, Orange and Ventura) dropped below 15 percent in 2005, the lowest since 1989. *In 2005, every county in the region had lower housing affordability than the national average and the gaps have continued to widen since 1997 (Figure 50).*



Figure 50

Housing Affordability

(Percent of Households Who Can Afford to Purchase a Median-Priced Home)



Data for Imperial County not available
Source: California Association of Realtors

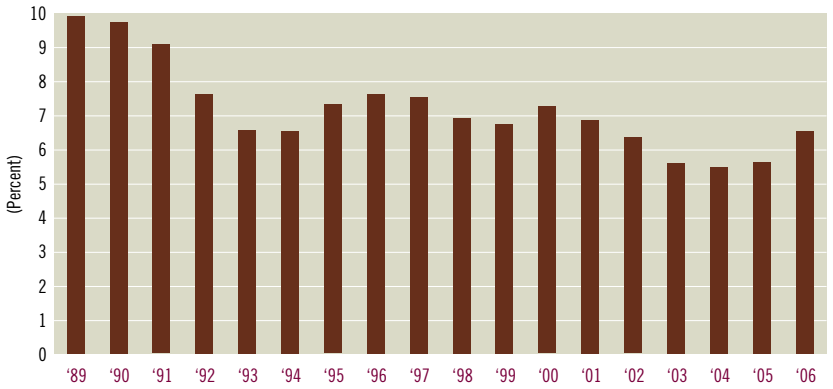
Housing affordability is generally impacted by household income, home prices and mortgage interest rates. Between 2005 and 2006, average mortgage interest rate rose from 5.64 to 6.53 percent (Figure 51). *During 2006, home appreciation at 8 percent at the regional level, though the lowest since 2000, continued to outpace the income growth making housing less affordable.*

Real median household income increased by 2.6 percent from 2005 to 2006. However, median home prices in the region reached historic peaks in 2006 in almost every county in the region (Figure 52). Between 2000 and 2006, median home prices for existing homes more than doubled in Los Angeles, Orange, Ventura, and Imperial counties

and almost tripled in the Inland Empire. In 2006, home appreciation slowed significantly from the previous period, particularly for the Inland Empire. Specifically, home appreciation in the Inland Empire was about 7 percent in 2006, a significant drop from 26 percent in 2005 and 34 percent in 2004. Home appreciation in Orange and Ventura counties were below 3 percent in 2006, a significant decline from 10 percent in 2005 and almost 30 percent in 2004.

Figure 51

Average Mortgage Rate



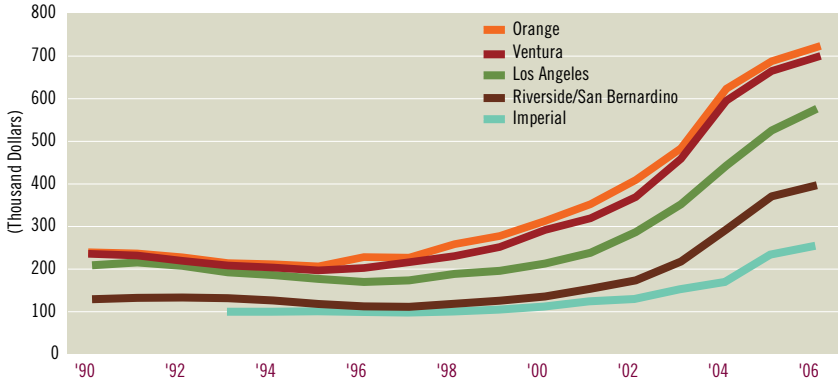
Source: Real Estate Research Council of Southern California



Figure 52

Median Home Price

(Existing Single-Family Homes in Current Dollars)



** Imperial County data not available between 1990 and 1992*
Source: California Association of Realtors and DataQuick Information Systems

The record high home prices were affected by several factors including low interest rates, wider availability and uses of non-traditional mortgage financing and the accumulation of unmet demand since the early 1990s. In 2006, though average mortgage interest rate rose to 6.53 percent, it is still considered low by historical standard. Lower interest rates could allow for higher selling prices and still keep the same monthly mortgage payment amount. In addition, there are wider availability and uses of non-prime mortgage financing in recent years. Between 2001 and 2006, the use of non-prime loans nationally surged from 23 percent to 51 percent.[5] Prime loans consist of conventional and jumbo loans, and non-prime loans include sub-prime, Alt-A, home equity and FHA/VA loans.[6]

In 2006, 20 percent of all loans in the state and the nation were subprime loans, more than doubling its share in 2001. Subprime loans are generally loans made available to borrowers who do not quality for conventional financing due to low credit scores. A subprime loan also tends

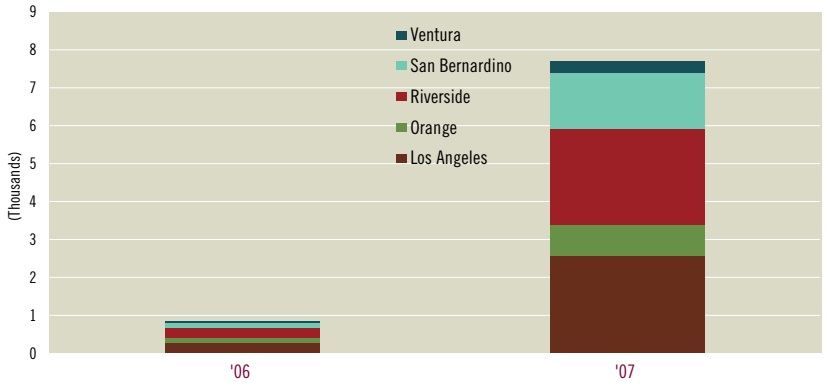
to involve loose underwriting requirements, such as minimum down payment and the option to provide a "stated income" without documentation. Also over 30 percent of loan originations in California in 2006 were loans with interest-only features, compared to 22 percent nationally. At the end of 2006, there were 229,268 adjustable-rate mortgages between one and three years old in Riverside and San Bernardino counties, and almost 32 percent of those were subprime loans.[7] As housing prices are leveling off and lending standards are becoming stricter, borrowers could no longer refinance or cash out their homes for a profit, triggering a rising tide of defaults, the first step to foreclosures.

Between 2005 and 2006, the number of notices of defaults in the region increased from about 35,000 to 60,000, the highest level since 1999.[8] This represented a 70 percent jump compared to only 3-percent increase during the previous period. Riverside County saw its notices of defaults almost doubled between 2005 and 2006 since the use of sub-prime products by first-time homebuyers were concentrated in the relatively more affordable communities such as the Inland Empire.

In 2007, foreclosures surged in the region and the rest of the state. During the second quarter in 2007, there were about 7,800 foreclosures in the region, an increase from only about 860 during the second quarter in 2006 (Figure 53). More than half of the foreclosures in the region in 2007 (second quarter) took place in the Inland Empire. At the state level, foreclosures hit a record high of 17,400 during the second quarter in 2007, surpassing the previous peak of 15,400 in 1996 (third quarter). *Because the number of subprime loans funded peaked in 2006, and the interest rates of these loans are not scheduled to reset for a few more years, the increased rate of foreclosures may continue through 2008.*

Figure 53

Home Foreclosures
(2nd Quarter Data)



Source: DataQuick Information Systems

In 2006, about 53 percent of the region's owner households (with a mortgage) had monthly costs at or greater than 30 percent of household incomes, about a 5-percent increase from 2005 and considerably higher than the national average of 37 percent (Figure 54). Statewide data further indicated that 20 percent of recent California homeowners spend more than half of their incomes on housing costs.[9] At the national level in 2006, only 37 percent of owner households had monthly costs at or greater than 30 percent of household incomes. *In 2006, the SCAG region had the highest homeowners housing cost burden among the nine largest metropolitan regions in the nation, followed closely by the San Francisco Bay Area (see Figure 130 page 149).*

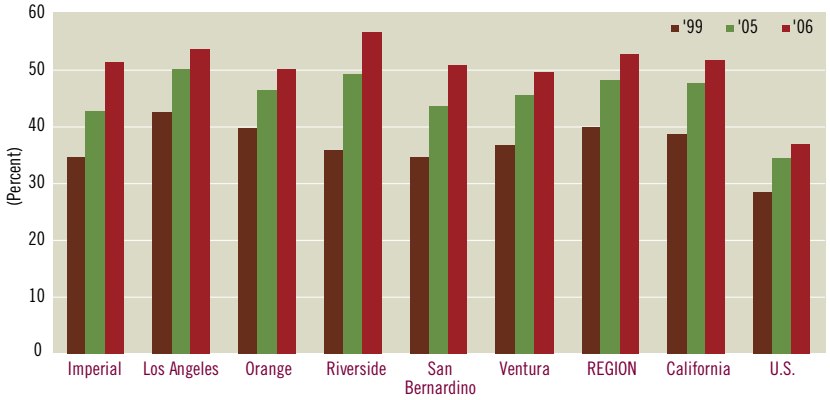
Within the region, every county has experienced a significant increase in housing cost burden since 2000. In 2006, Riverside County had the highest cost burden with 57 percent of owner households paying 30 percent or more of household income on housing. In addition, between

2005 and 2006, the three inland counties experienced larger percentage increases in housing cost burdens than their coastal counterparts.

Figure 54

Housing Cost Burden

(Owner Households Paying 30 Percent or More of Household Income on Housing*)



** Percentage share of all owner households with a mortgage*
Source: U.S. Census Bureau, 2000 Census, 2005 and 2006 American Community Survey

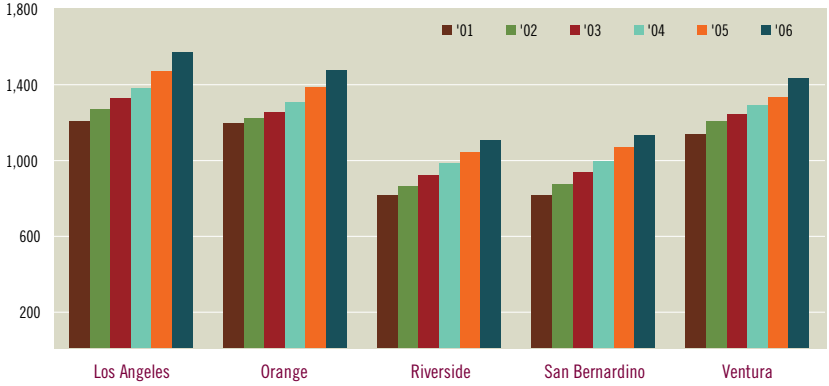
With rising interest rates, record home prices, slowing of the home sale market and continuing population growth, demand for rental units has been growing. At the same time, the conversion of apartments to condominiums reduced the supply of rental units. Between 2005 and 2006, average rents in the region increased generally by more than 7 percent (without inflation adjustment). In 2006, average monthly rents were around $1,500 in the coastal counties and above $1,100 in the Inland Empire (Figure 55). The Los Angeles/Orange county area topped all markets in the west for the most expensive monthly rents while occupancy rate remained at almost 96 percent. *Among the over 2.4 million renter households in the region in 2006, more than 53 percent (1.2 million households) spent 30 percent or more of their incomes on rent, noticeably higher than the national average of 46 percent (Figure 56).*

Within the region, Riverside County suffered the highest cost burden with 56.3 percent of renter households paying 30 percent or more of household income on housing.

Figure 55

Average Monthly Rent

(Current Dollars)

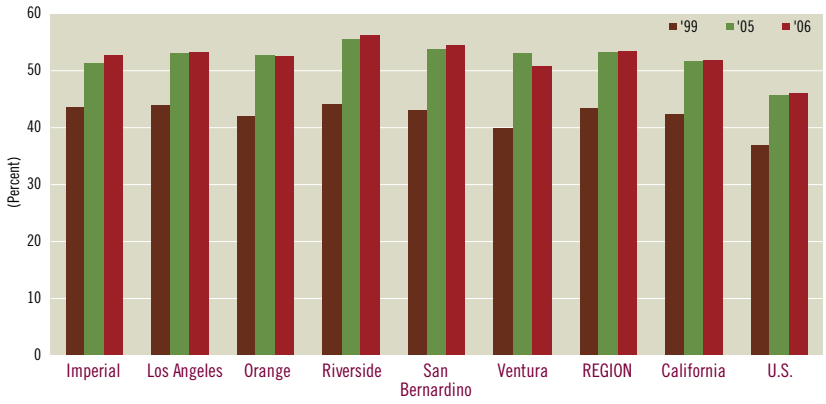


Data for Imperial County not available
Source: Real Estate Research Council of Southern California

Though changed little between 2005 and 2006, rental cost burden has generally been increasing steady at the regional, state and national levels. *Among the nine largest metropolitan regions in the nation, the SCAG region continued to have the highest share (53 percent) of rental households with monthly rent at or greater than 30 percent of household income (see Figure 131 page 150).* Following the SCAG region was the Boston region, with 49 percent of renters spending 30 percent or more of their incomes on rent. In addition, California had the highest median rent among all states in 2006 except Hawaii. Hence, rental housing is an important public policy issue at the regional as well as state levels.

Figure 56

Rental Cost Burden
(Renters Paying 30 Percent or More of Household Income on Rent)



Source: U.S. Census Bureau, 2000 Census, 2005 and 2006 American Community Survey

Housing Crowding

Why is this important?

Housing crowding measures the percent of housing units with more than one person per room, including all rooms except bathrooms. It provides an indication of housing shortages and housing affordability. Lack of affordable housing will lead to higher levels of housing crowding.

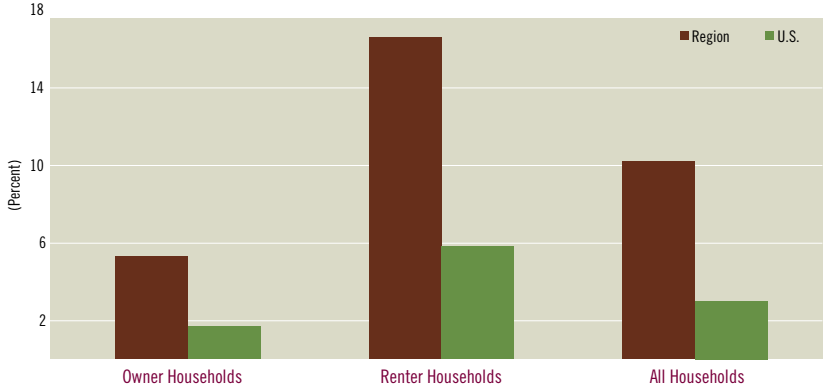
How are we doing?

In 2006, about 10.2 percent of the occupied housing units were considered to be crowded, a slight decrease of 0.4 percent from the previous year. Between 2000 and 2006, the share of crowded housing in the SCAG region dropped 3.6 percentage points. Within the region, Los Angeles County continued to have the highest rate (12.1 percent) of crowded housing.

Overcrowding is most common in rental housing due to higher concentrations of lower-income households. In 2006, while only 5.3 percent of the owner households in the region lived in crowded housing, close to 17 percent of the renter households experienced the same (Figure 57). Hence, a renter household was about 3 times more likely to live in crowded conditions than their owner household counterpart. Nationally, the disparity between renter and owner households living in crowded housing was much smaller, 5.8 percent vs. 1.7 percent respectively.

Figure 57

Housing Crowding*, 2006



** With more than one occupant per room excluding bathrooms*
Source: U.S. Census Bureau, 2006 American Community Survey

In 2006, Southern California continued to have the highest rate of crowded housing among the nine largest metropolitan regions.

TODs for Southern California: Challenges and Prospects

Anastasia Loukaitou-Sideris, Ph.D.

When the idea of transit oriented development (TOD) entered the lexicon of planning in the late 1980s, it was enthusiastically endorsed by some planners and academics who viewed TODs as a way of mitigating the ubiquity of sprawl and as a strategy for smart growth. But actual implementation of TOD projects was slow to follow as developers and funding institutions were hesitant about the level of public acceptance and marketability of such projects in a region that seemed to be married to the private automobile.

Twenty years later, however, the concept of TOD is no longer "academic," but has been successfully implemented in many metropolitan regions throughout the nation. In Los Angeles County, many housing and mixed-use projects have appeared in close proximity to stations in Pasadena, South Pasadena, Hollywood, Long Beach, and other areas, and more are on the drawing boards or at various stages of the approval and development process. Municipalities and Metropolitan Planning Organizations, and even many developers are enthusiastic about building near transit. Why has development around transit become popular? Which are the motivations and incentives but also the constraints and problems of building adjacent to stations? Can TODs have an effect in reducing traffic congestion, improving environmental quality, and enhancing housing supply and affordability in Southern California? Finally, what are the necessary antecedents and appropriate strategies for attracting development around stations and along transit corridors?



To address these questions I will draw from the experiences of two transit lines which represent the first and last built segments of Los Angeles County's metro rail system: The Blue Line and the Gold Line. The Blue Line opened in 1990 as the first twenty-two mile increment of a long-awaited light rail system, connecting downtown Los Angeles to downtown Long Beach. The line used existing, but largely unused tracks of an earlier system. While the line has been operating for 17 years it has not been able to realize its development potential of creating vibrant transit station neighborhoods. With the exception of a few TODs, especially near the Long Beach stations, there has been little development along the Blue Line corridor. The Gold Line, on the other hand, which opened in July 2003 linking downtown Los Angeles to Pasadena, has generated considerable development activity around many of its stations, although it has not yet reached its projected capacity in terms of transit trips. I will argue that a lot has changed in the region in the thirteen years that separate the inauguration of the two lines, which is partly responsible for the change in attitudes and the new-found popularity of TODs.

Learning from Past Mistakes

When the Blue Line was still at a conceptual stage of development, rail advocates emphasized the various benefits, in addition to mobility, that the line could bring to the depressed inner city neighborhoods

it was passing through. But when my colleague Tridib Banerjee and I studied the line, ten years after its inauguration, we found empty fields and classical inner city decay in the vicinity of many stations. We argued that the line was suffering from the "Blue Line Blues," which was a combination of four types of problems and a number of missing antecedents for economic development, whose combined presence was halting development and positive change around its stations.

There were certainly *planning problems*, which included a general lack of planning by municipalities and jurisdictions in anticipation of the line, and a lack of coordination among the different public-sector agencies to instigate joint development opportunities. *Environmental problems* that plagued development in the vicinity of Blue Line stations included an abundance of contaminated sites and incompatible land uses. Much of the land along the corridor was simply not fit for new housing or neighborhood development or it was zoned for uses not compatible with TODs. The *social and structural problems* and obstacles that beset many inner city communities—poverty, unemployment, crime, and gang violence -- defined a negative image for investment in many of the Blue Line's station neighborhoods. Being populated mostly by minority and immigrant residents these neighborhoods were also lacking the political clout and ability to voice their opinions in public hearings or demand more resources. Finally, *economic problems* such as the high cost of land near stations combined with a general lack of development incentives frustrated development along the line.

The Blue Line corridor represented a clear case of lacking preconditions or missing antecedents for TODs. These included: 1) the back door location of many stations, which are located in the industrial backlot of metropolitan Los Angeles, away from the center of communities; 2) an absence of a critical mass of density near station areas; 3) a lack of



a good interface with other transportation modes that led to the poor accessibility of many stations; 4) pedestrian unfriendly stations lacking good pedestrian connections to the surrounding neighborhoods; 5) a lack of an overall urban design framework or vision for station area development; 6) a landscape of deprivation in the immediate station neighborhoods and a general lack of desirable neighborhood amenities; 7) regulatory barriers such as antiquated zoning and a lengthy permitting process; 8) lack of institutional commitment and missed opportunities for land acquisition and joint development from the part of municipalities and transportation agency; and 9) a lack of community involvement and participation in the planning process.

Indeed, when the Blue Line was built, municipalities seemed unprepared or unconcerned with planning for development in adjacent sites. This stymied opportunities for development around its stations. Since that time, however, municipalities have learned from past mistakes and have become increasingly eager to make TODs happen by specifically

planning for them and offering development- and financial incentives. In anticipation of the Gold Line, for example, the city of South Pasadena created a master plan for not just the station site but for the whole Mission District, awarding additional density entitlements if the developers allowed for a mixture of uses and provided public parking near the station. The city also raised a total of $5 million funds from different sources to subsidize the Mission Meridian project. Seeking to maximize development opportunities by increasing allowable densities around its station areas, the city of Pasadena also prepared plans in anticipation of the Gold Line, and reduced parking requirements for developers building near stations.

In the years that separated the construction of the two lines many municipalities realized that growth and development around station areas does not simply happen by the mere presence of the transportation network. There is a need for a plan and a vision for the station area combined with incentives for TODs.

Pressing Issues, Pressing Trends

Pressing issues and trends in the Southern California region have forced many municipalities to start considering ways of accommodating urban growth and its associated effects. During the thirteen years that separated the inauguration of the two light rail lines, drastic demographic, economic, and environmental transformations took place in the region, which made the visioning of an alternative urban form necessary and urgent. For one, population size has reached 9.5 million in Los Angeles County alone, and according to SCAG projections, is expected to grow by 30% by 2025. If cities are to continue to accommodate Southern California residents into the single-family homes that are dotting the region's landscape, they would have to keep pushing the urban boundaries ever outwards, leapfrogging into farmland and extending



the urban sprawl. Also importantly, the region's changing demographics, which include a growing share of Latino transit-dependent households and more older people often willing to consider alternatives to the suburban single family housing, are likely to generate more demand for TODs.

Second, the supply of housing in the region fell far short from meeting consumer demand, while housing prices skyrocketed. Median home prices generally doubled over the span of four years, from 2001 to 2005, and housing affordability reached a record low in 2005. These trends mean of course that an increasing share of households can no longer afford the singly-family home of the American dream. Different and more affordable housing options should be made available that may include duplexes, town homes, apartments, and condominiums.

Third, the region reached the dubious record of the worst traffic congestion in the nation. Traffic gridlocks are now a daily occurrence

on Southern California freeways and surface streets. It comes as no surprise that transportation emerged as the top concern of residents in the Southern California Public Opinion survey. Urban housing in close proximity to jobs and retail opportunities has become a desirable option for urbanites wishing to avoid long commutes and the accompanying exposure to traffic congestion. In Los Angeles County, for example more than half of the residential building permits issued in 2005 were for multi-family housing.

Fourth, solo driving has also become much more expensive in recent years. Since 2001 gasoline prices have doubled from $1.60 to $3.20 per gallon. Having more transportation options, including walking and riding the bus or the train, is becoming quite appealing for a number of households. While the private car still remains the undisputed travel mode of choice for most households in the region, transit has increased its share. Indeed the region experienced a record high of 672 million transit boardings in 2005.

Finally, concerns about the region's air quality and the effects of global climate change are worrisome for Southern Californians who placed the environment as their third most important concern in the Southern California Opinion Poll. The region's excessive reliance on the automobile means that residents use more energy for transportation (about 40%) than for other activities. The burning of fossil fuels from automobile emissions, therefore, contributes greatly to its air quality woes. Indeed, the South Coast Air Basin has some of the worst air quality in the nation.

The aforementioned demographic and economic realities, trends, and concerns have expanded the market for TODs and have encouraged or forced a larger segment of the public to seek alternative ways of living beyond the single-family house.

Regional Response: An Enabling Policy Environment

When we studied the reasons for the lackluster effect of the Blue Line on its adjacent neighborhoods we observed a lack of institutional will and initiative. We emphasized the need for regional thinking and public sector involvement, commitment, and support. Today, this seems to be happening at different scales.

California voters have approved Proposition 1C, a $2.8 billion bond for affordable housing that includes $300 million for a TOD implementation program. This is supposed to provide grants for municipalities and transit agencies to build the necessary infrastructure that can make TODs feasible. An additional provision of Prop 1C is the availability of loans for mixed-use, housing, and commercial developments within one quarter mile of a transit station. The California Department of Housing and Community Development with the help of MPOs including SCAG are in the process of drafting program guidelines to implement the provisions of such a TOD program.



In Southern California, SCAG has initiated the Compass Blueprint 2% strategy that envisions the direction of future development in strategic opportunity areas that do not exceed 2% of the region's land resources. A significant part of this development is anticipated to happen around transit hubs, railway stations, major bus stations, and along transit corridors. More importantly, the large scale visioning process initiated by Compass educates sub-regional and local stakeholders about the necessity of alternative types of development that are more compact and sustainable. The combined effect of these actions at the state, regional, and municipal levels creates an enabling policy environment which was absent a decade ago. It comes as no surprise that developers are responding.

A Changing Mindset of Developers

Indeed, today some of the initial fears that developers and lending institutions had for TODs have been appeased and a significantly higher number of development projects are being planned and built around transit stations and along transit corridors than in the late 1980s and 1990s. For quite long, developers were reluctant to build TODs because they perceived them as only attractive to a narrow market segment: singles, young professionals, and 'empty nesters.' For one, this market segment is by no means small, as national trends have indicated. Indeed, by 1980, only 30% of the US households were dual-career couples with children. Specifically along the Gold Line corridor, 38% of the households are composed of only one person, according to the 2000 Census. Talking to developers who built along the Gold Line corridor we found that they now target a significantly larger market segment that also includes different age groups of families, seniors, two-income households, and single-income earners. Developers attributed this widening of the market to a rising demand for an alternative way of living generated by the aforementioned pressures. Additionally, developers seem to appreciate the enabling policy environment that includes development incentives such as increased floor-area ratios (FARs), reduced parking ratios, relaxed open space requirements, and sometimes public sector subsidies. Importantly, these developers and their architects now see a good potential for TODs, acknowledging the demand for more affordable homes, schools, and offices in the metropolitan core instead of the edge cities.

Tensions and Challenges

While a number of motivations give incentives to municipalities and developers to pursue more compact and higher density development around transit stations and along transit corridors, a number of tensions and contradictions still remain. A first concern has to do with the difficulty of changing a long-standing urban form dominated by low-density, single-family uses. When TODs are developed in and around established residential neighborhoods, we often witness tensions between integrating the broader TOD goal of higher density dwelling and the desire of communities to maintain the character of their existing built form. This creates a design challenge of how to make higher





density look less dense, as well as a broader challenge of "bringing the public along" to share the TOD concept.

Another tension exists between the desire for pedestrian uses and market realities. In some cases the commercial uses that cities or developers are interested in attracting cannot afford the high rents in these districts. In other cases, municipal desires for tax revenue may encourage certain uses or a mix of uses that interferes with creating the best mix of uses (pedestrian-oriented and transit friendly) for a TOD.

For residential units, high rents and sale prices in some TOD areas mean that units are more likely to be occupied by more affluent households with multiple cars and not by those who are transit dependent. Indeed, a recent LA Times article claimed that residents of many TOD projects in the region do not use transit. This creates an ongoing tension for transit agencies, planners, and city council members who want TODs to provide a resource for those who need it, to boost transit ridership, and lessen automobile use. At the same time, the introduction of high density development in a neighborhood without a simultaneous modal change from driving to walking, biking, or riding transit is likely to increase traffic congestion in the immediate area, a concern raised by many critics of high-density projects. Thus a tension arises between the short term impact of TODs, which may indeed generate more vehicular traffic in their localized areas because of the increased density, and their anticipated long-term impact which will hopefully reduce the regional VMT by giving more people good access to a well-coordinated and improved transit system.

Another important tension emerges around parking requirements for TODs. It is difficult to strike the right balance between providing enough parking for residential and commercial tenants and customers who own cars and/or access the area by car, while accounting for those who access the site by rail and encouraging more people to do so. Too much parking might prompt people to drive when they could just as easily ride the train, whereas too little parking may frustrate residential and commercial tenants. The parking paradox poses a number of difficult dilemmas for planners and cities. Municipal decisions about residential parking requirements may contribute to how quickly new and existing residents choose transit use over car use. At the same time, some developers are concerned about the marketability of their project if it does not have the "right amount" of parking.

The decision of whether to provide development incentives or to impose development fees and other requirements represents a delicate balance with market forces in a given station area. Finding the right balance between "carrots and sticks" is important for cities. Incentives such as density bonuses, higher FARs and building heights, and decreases in parking requirements allow developers to improve the profitability



of their developments. Certain development fees and requirements such as for affordable housing or open space can give cities important amenities but may also serve as disincentives for development.

Building around transit stops and along transit corridors faces four types of challenges in Southern California: 1) *Procedural/Planning challenges* that impede the process of development causing, tension, delays, and money include the difficulties of coordination among the multiple parties involved and the complexity of building joint development and infill projects; 2) *Economic/Market challenges* include the high cost of land and construction, and certain ill-conceived ordinances that make developments more expensive or reduce the developable square footage of a site; 3) *Cultural/Perceptual challenges* relate to the negative attitudes held by various communities towards higher densities; 4) *Physical/Environmental challenges* include the noise from the trains and the technical difficulties of building very close to a transit line.

Addressing the Challenges

At this time in the region's history a lot seems to work in favor of development around transit: A willingness from the part of municipalities to encourage TODs, a regional vision that strives to focus development around strategic points, an enabling policy environment that favors and funds TODs, a changing mindset from the part of developers who discover an increasing market for TOD projects, and pressing environmental and transportation concerns in the region which are prompting some to desire alternative living conditions. Still certain challenges and tensions remain and the following suggestions respond directly to them.

Plan stations near people and activities

Good planning for TODs begins with the planning of the transportation line. A good location is the most important attractor to and motivation for building at a particular site. Therefore, choosing a good station location is crucial to stimulating development. As the failure of the Blue Line to stimulate development poignantly shows, stations should be located at or in close proximity to the "front door" of communities, near other urban amenities and existing nodes and hubs of activity, such as schools, parks, and retail.

Pre-plan for TODs

The Gold Line example shows that municipalities that preplan for TODs in anticipation of a transit line are in a better position to attract developers and projects in their jurisdiction. The development of transit overlay zones that extend ½ mile around transit stations and have defined guidelines and incentives for TODs can be extremely helpful to a) ensure that a city's vision and goals will be followed; b) minimize uncertainty for developers, letting them know beforehand

what to expect from the city and what the city expects from them; and c) streamline the development process thus reducing time costs.

Educate and involve the public

Extensive education of the public about the potential benefits of TODs is especially important during this transitional period where transit use is not yet part of the region's culture. While community meetings are important venues for developers to learn about and respond to community concerns, it is necessary to begin the public conversation early. Ideally, a shared community vision can be formulated prior to the designation of a transit-oriented district as part of proactive public sector planning in anticipation of a rail line. Municipalities should also compile an inventory of "best practices" as good examples of high-density developments that make a smooth transition to the existing urban fabric. Finally, TODs are more likely to be welcomed if they increase the kinds of housing options available. Well-designed and centrally located TOD projects with smaller but more affordable units (condos, apartments, and lofts) can be appealing to those who are currently excluded from the single-family housing market.

Develop strong public/private partnerships

TODs provide opportunities for joint development agreements and cost-sharing projects (such as parking structures, public plazas, etc.). The development of strong partnerships between municipalities, transportation agencies, and MPOs on the one hand, and the private sector on the other, can help reduce the cost of TOD projects and also ensure desirable amenities. The cost for developers can be reduced if cities streamline the development processes of TODs allowing developers to build "by right" if they comply with all requirements of a transit overlay zone. Cities may also consider exploring the idea of a "Global EIR" that could apply to all projects within the TOD overlay zone which comply with the requirements of the zone. Cities can also underwrite the cost of environmental mitigation of contaminated sites, identify empty or underutilized sites and help convert them to developable lots.



Achieve better coordination among different public entities

Frequently the involvement of different public agencies and actors with different requirements, goals, expectations, and levels of authority, frustrates TOD projects and stymies opportunities for regional thinking. For this reason the establishment of a *Corridor Coordinating Council* as a Joint Powers Authority consisting of high-level representatives from all different public sector agencies involved in corridor development can help establish a corridor-level TOD vision and set goals that promote successful projects.

Find the right balance between "carrots and "sticks"

Development fees and other requirements can bring desirable amenities to a jurisdiction (e.g. open space) but if they prove too burdensome they may scare developers away. It is very important that cities constantly monitor the balance between incentives and requirements (the carrots and sticks of development) weighing the condition of the economy and other market forces, the development potential and desirability of the site for developers, as well as whether a developer owns the land or only has an option to it.

Actively recruit pedestrian-oriented, transit-friendly uses

The ideal of a transit village with pedestrian-oriented and transit-friendly uses, neighborhood retail, galleries, drug stores, bakeries, and coffee shops generating foot traffic cannot be realized if such commercial tenants do not have the financial means to rent space in new developments. Developers, who are always interested in maximizing profit, are likely to opt for larger commercial tenants (banks, furniture stores, warehouses, etc.). Therefore, the public sector should play a crucial role in identifying and attracting desirable commercial tenants. In certain cases, cities may consider offering tax incentives or even rent subsidies (for the first few years) to help create a critical mass of desirable pedestrian-oriented tenants.

Find a solution to the parking dilemma

Cities can follow a number of approaches to address the parking dilemma for TOD projects that would include a) decoupling parking from residential development and giving residents the option of purchasing a unit with or without parking; b) developing maximum parking standards for TODs; c) exploring the potential for shared parking; and d) allowing developers to satisfy parking requirements by leasing parking spaces in adjacent structures.

Make transit more appealing

The last recommendation is also the most important. Part of the appeal of TODs for cities is the expectation that they will help switch many motorists to transit riders. This, however, will not take place if transit is inconvenient. Buses and trains should be reliable, safe, affordable, and convenient in linking points of origin to destinations. Good multimodal linkages should connect transit stops to the neighboring areas. To incentivize ridership, cities and developers may consider offering free weekend rail passes and monthly passes at reduced cost as well as free shuttle rides connecting stations to neighborhoods.

Conclusion

By concentrating development in selected areas near transportation corridors, expanding the supply of housing, and offering convenient transit as a modal choice, TODs have the potential to help reduce traffic congestion, improve environmental quality, and enhance housing supply and affordability in the region. Such developments cannot of course happen overnight as it takes time for people's preferences and behavior to change and for a transit system to mature. Thus, quick assessment of the effectiveness of recent TOD projects in reducing congestion or boosting transit ridership seem to be rather premature. While TODs are certainly not a panacea for the region's problems they are, nevertheless, an indispensable component of an overall strategy to address its chronic traffic challenges and also accommodate growth in ways that preserve its long-term sustainability.



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This essay drew data and information from the following sources:

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Loukaitou-Sideris, A. and Banerjee, T. (2000). "The Blue Line Blues: Why the Vision of Transit Village May Not Materialize Despite Impressive Growth in Transit Ridership," *Journal of Urban Design,* 5(2): 101-125.

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The total transit boardings in the region in 2006 reached 737 million, a record high since 1990.

Journey to Work: Mode Choices

Why is this important?

Single-occupant vehicle use accounts for the highest level of land consumption among all transportation modes. It also generates the highest level of environmental, economic and social impacts. Increasing the use of alternative modes to work (e.g., carpool, transit, etc.) is critical to accommodate future growth with less environmental, economic and social impacts.

How are we doing?

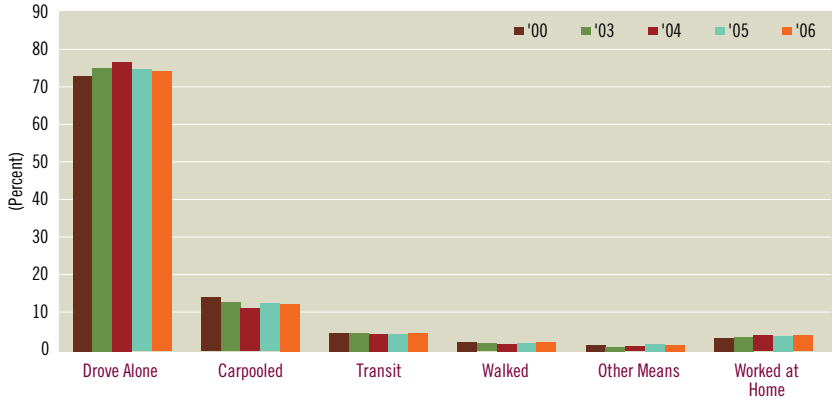
Between 2004 and 2006, the share of drive-alone commuting in the region decreased for two consecutive years from 76.7 percent to 74.1 percent, a 2.6 percent drop reversing the trend of steady increases between 2000 and 2004 (Figure 58). During the same period, the share of alternative modes for commuting increased from 23.3 percent to 25.9 percent, reversing the trend of a steady decline between 2000 and 2004. Alternative modes encompass all modes except drive alone, including, for example, carpool, transit, walking, biking and work at home. This was similar to the trend at the national level though the magnitude of decrease in drive-alone share was larger in the SCAG region (Figure 59). The sharp rise of gasoline prices seemed to contribute to these reversals in the region and the rest of the nation (as further discussed in the Highway Use and Congestion Section below).



Figure 58

Mode Choice to Work

(Workers 16 Years and Over)



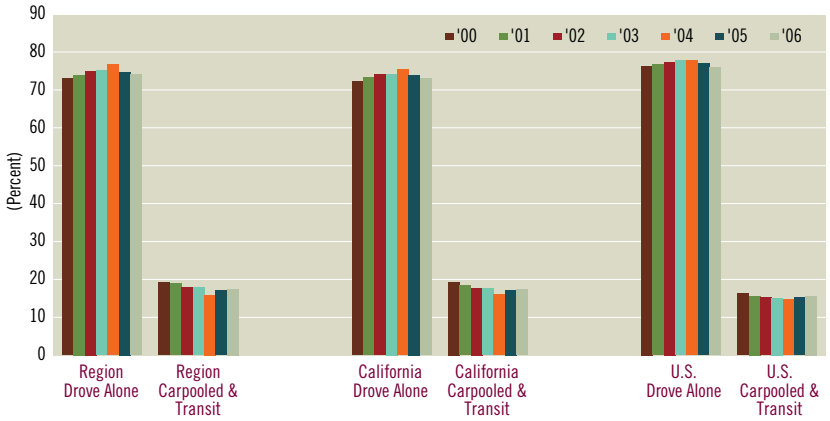
Source: U.S. Census Bureau, American Community Survey

It should be noted that the region's carpool share of commuting, though rising from 11.4 percent to 12.6 percent between 2004 and 2006, was still well below the 2000 level at 14.3 percent. *Nevertheless, among the nine largest metropolitan regions in 2006, the SCAG region continued to achieve the highest share (12.6 percent) of workers who carpooled to work followed by the Dallas region (12 percent).*[1] The SCAG region has had the highest carpool share since 1990. Among those who

carpooled, most (close to 80 percent) were in a 2-person carpool, and the remaining 20 percent were in 3-or-more-person carpools.

Figure 59

Mode Choice to Work - Drive Alone, Carpool, and Transit
(Workers 16 Years and Over)



Source: U.S. Census Bureau, American Community Survey

Within the region, carpool share of commuting increased in every county between 2004 and 2006. The Inland Empire led the region in carpool share in 2006 with Riverside County achieving the highest at 16.7 percent (a 2.6 percent increase from 2004) and San Bernardino at 14.2 percent.[2] In 2006, the SCAG region maintained the most extensive High-Occupancy Vehicle Lane (HOV) system, accounting for more than 20 percent of the total HOV lane miles in the nation.

Between 2004 and 2006, the transit share of commuting in the region increased from 4.5 percent to 4.9 percent, the highest since 2000. In addition, 4.2 percent of workers in the region worked at home instead of commuting to a workplace, though about the same as in 2004 also the highest since 2000.

Journey to Work: Travel Time

Why is this important?

Though the share of work trips among total trips has been declining, work trips continue to generate disproportionately higher impacts on the regional transportation system. Work trips tend to take longer than other daily trips. In addition, commute hours are generally the period with the most traffic congestion. Accordingly, transportation investments are still influenced significantly by the nature of work trips. Finally, the choice of residential location is partly determined by the location of work and the associated journey to work.

How are we doing?

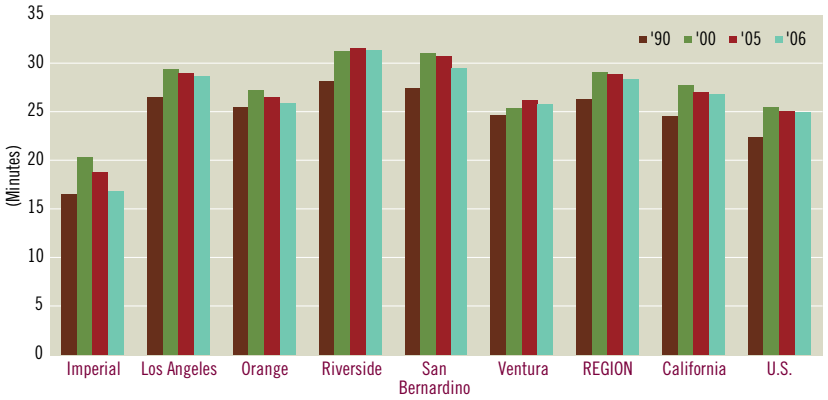
Between 2005 and 2006, average travel time to work in the region declined very slightly from 28.9 minutes to 28.4 minutes though it continued to be higher than the state (27 minutes) and national (25 minutes) averages. Within the region, average travel time fell slightly in every county. In 2006, workers in Riverside County continued to have the highest average travel time to work in the region at 31 minutes followed



by San Bernardino County just below 30 minutes, while Imperial had the lowest at 17 minutes (Figure 60).

Figure 60

Average Travel Time to Work



Source: U.S. Census Bureau, 2000 Census, 2005 and 2006 American Community Survey

Transit Use and Performance

Why is this important?

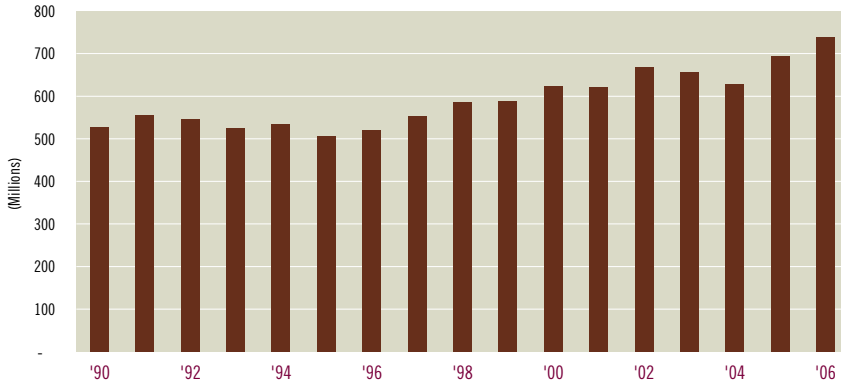
Use of public transit helps to improve congestion and air quality and decrease energy consumption. Reliable and safe transit services are essential for many residents to participate in economic, social and cultural life in Southern California. Annual transit boardings measures transit use at the system level, while transit trips per capita provides a measure of transit use at the individual level.

How are we doing?

Total transit boardings in the region in FY 2006 (from July 2005 to June 2006) increased by 44 million (6 percent) to a record high of 737 million since 1990 (Figure 61). This was primarily due to the continuing growth of the Los Angeles County Metro transit system ridership. It was also facilitated by the surge in gasoline prices that resulted in some shift from private auto to transit use. The Metro system accounts for about two-thirds of the regional total in transit boardings. During FY 2006, the Metro transit system (including bus and rail) achieved an increase of 38 million (7 percent) to reach total boardings of 493 million.

Figure 61

Transit Boardings - All Major Operators



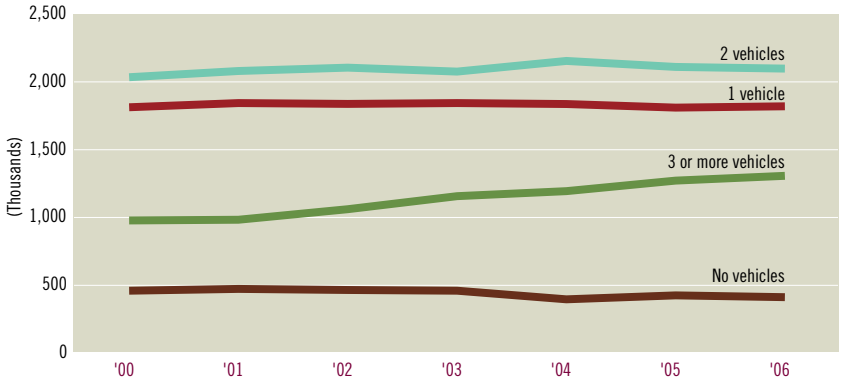
Source: National Transit Database and SCAG including preliminary estimates for 2006 data



The increase in transit boardings took place despite a reduction in the transit dependent households (i.e. households without a car) in the region. Between 2000 and 2006, the number of households without a car decreased from 459,859 (10.1 percent) to 411,824 (7.3 percent) (Figure 62 and 63). This is consistent with the trend at the state and national levels.

Figure 62

Households by Vehicle Availability



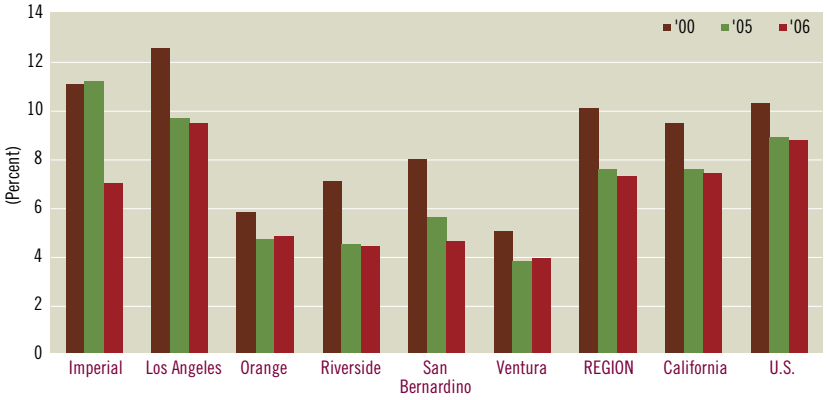
Source: U.S. Census Bureau, American Community Survey



Within the region, every county saw its share of transit dependent households decreasing from 2000 to 2006. Los Angeles County continued to have the highest share of households without a car at 9.5 percent while Ventura the lowest at only 3.9 percent.

Figure 63

Household Without a Car



Source: U.S. Census Bureau, 2000 Census, 2005 and 2006 American Community Survey

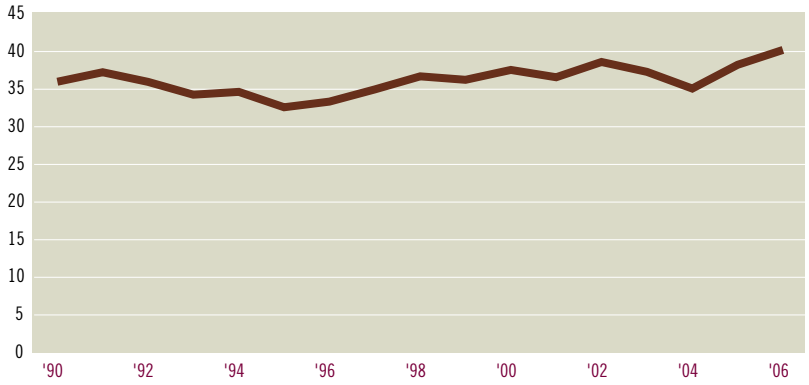
In addition to the Los Angeles County Metro system, a few other transit systems also experienced boarding increases. For example, total boardings of the Orange County Transportation Authority transit system rose from 66 to 69 million (4 percent) between FY 2005 and FY 2006. In addition, Metrolink also accomplished a 9 percent gain for the second consecutive year to reach 11.7 million boardings in 2006.

Between 2005 and 2006, since transit boardings in the region increased at a much faster rate than the population, transit trips per capita increased from 37 in FY 2005 to 40 in FY 2006, which was the highest since 1990 (Figure 64). Nevertheless, transit use accounted for only about 2 percent of all trips in the region. Major barriers to further transit system development and higher transit use include an

auto-oriented urban structure, inadequate level of service and a lack of geographic coverage (or insufficient destinations).[3]

Figure 64

Transit Boardings Per Capita



Source: California Department of Finance, National Transit Database

Highway Use and Congestion

Why is this important?

Highway congestion causes delays affecting personal mobility and goods movement and results in increased economic and social costs. In addition, congestion impacts the region's air quality. The number of vehicle miles traveled (VMT) indicates the overall level of highway and automobile usage, and is directly related to mobile source emissions.

How are we doing?

For at least the past two decades, Southern California has been consistently experiencing very high levels of congestion. Contributing factors include large population and physical extent of the region, rapid population growth, high automobile dependence, low levels of transit usage, and a maturing regional highway system with limited options for expansion.

Larger metropolitan regions generally have higher levels of congestion than smaller metropolitan regions. The SCAG region has also consistently been growing faster than the rest of the nation. The dispersed development patterns with imbalanced jobs and housing in the region result in transit services less effective and continued reliance on private automobiles. Currently, less than two percent of the total person trips use transit. Among the nine largest metropolitan regions in the nation, Southern California had one of the highest dependence on automobiles despite of having the lowest per capita income. The region's highway system is a maturing system with limited options for expansion. This is particularly true for southern Los Angeles County and Orange County. For example, 95 percent of the Orange County's planned arterial network has already been built.[4]

As a major gateway for international trade, the region's highways carry some of the highest truck volumes and share some of the most congested bottlenecks for trucks in the nation.[5] For example, I-710, which feeds trucks directly to and from the ports, and the I-605 and SR 91, carry as much as 40,000 trucks on an average weekday.

The SCAG region (particularly Los Angeles and Orange counties) regularly ranks as the most congested metropolitan region in the nation.[6] Congestion level is measured by indicators such as travel time index or annual delay per traveler. For example, in 2005, a traveler in Los Angeles/Orange counties during the peak period spent 50 percent more time than if traveling at free-flow speed. At 1.5 in 2005, Los Angeles/Orange counties had the highest travel time index among the nation's metropolitan areas (Figure 65). The San Francisco Bay Area had the second highest at 1.41. Riverside/San Bernardino counties ranked 6th

highest with an index of 1.35 in 2005. Ventura County, with a travel time index of 1.24, ranked 27th among all metropolitan areas and second among medium-sized metropolitan areas. Nationally, congestion has grown in every metropolitan area regardless of size but has been most severe within the largest metropolitan areas.

Figure 65

Peak Period Travel Time Index*
(by Metropolitan Area)



** Travel time index is the ratio of peak period travel time to free flow travel time.*
Source: Texas Transportation Institute

Though Los Angeles/Orange counties had the nation's highest congestion level, their travel time index increased little between 1995 and 2005, while other metropolitan areas generally experienced much larger increases in congestion levels. During this period, the travel time index in Los Angeles/Orange counties rose very slightly from 1.44 to 1.5, while it increased from 1.24 to 1.39 in New York and from 1.16 to 1.35 in Dallas. Significant investment in transit (e.g., the Red Line and light rails) and HOV system since 1990 contributed to the slower increase in congestion level in Los Angeles and Orange counties. The travel time index in Riverside/San Bernardino counties increased from 1.19 to 1.35 during the 10-year period.

In 2005, a traveler in Los Angeles/Orange counties during the peak period experienced a total delay of 72 hours, the highest among all metropolitan areas (see Figure 135 page 151). For Riverside/San Bernardino counties, the total delay for a peak period traveler was 49 hours, the 6th highest, and 39 hours for Ventura County. Close to half of the delay resulted from incidents. Total cost incurred due to congestion in the SCAG region was over $10.5 billion in 2005, significantly higher than any other metropolitan region (see Figure 136 page 152).

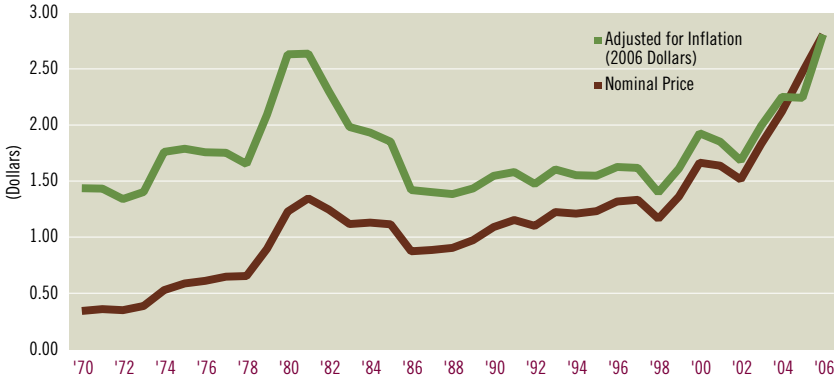
Gasoline price is an important factor influencing the amount of vehicle travel and the associated fuel consumption. Between 1970 and 2006, annual average gasoline (nominal) prices increased from 35 cents to $2.80 per gallon (Figure 66). With inflation adjustment based on 2006



dollars, real gasoline prices doubled from $1.40 to $2.80 during the same period. During the 36-year period, real gasoline prices generally stayed below $2 per gallon (and mostly fluctuated around $1.50) with the exception of two periods: the last energy crisis in the late 1970s and early 1980s and the recent price run-up since 2002. Real gasoline prices were below $1.70 per gallon in 2002 but have been increasing about 15 percent per year reaching $2.8 in 2006. This surge continued into 2007 reaching a new high of $3.20 (2007 dollars) per gallon in mid 2007 before declining somewhat to around $2.90 per gallon in fall 2007. Gasoline price changes are correlated with the world prices of crude oil, because crude oil represents a large percentage of the final price of gasoline.

Figure 66

California Gasoline Prices per Gallon, 1970-2006
(Annual Average)



Source: California Energy Commission

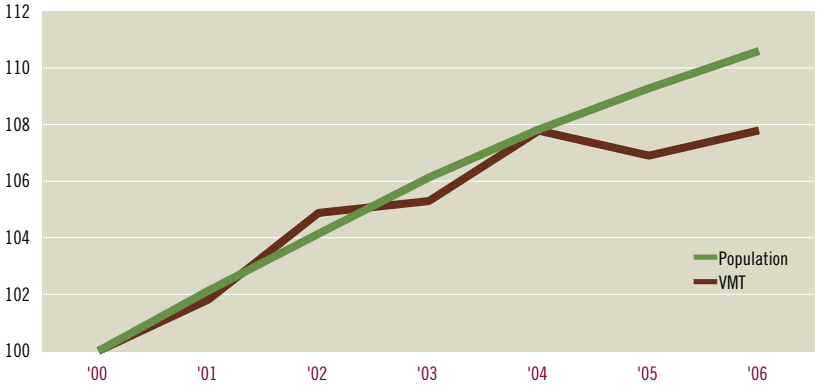
An average gasoline price at $2.80 in 2006 was the highest between 1970 and 2006 and began to have some impacts on the commuters' mode choices and total vehicle miles traveled. From 2004 to 2006, there was a notable decline in the region's drive-alone commuting from 76.7 percent to 74.1 percent, reversing the trend of a steady increase between 2000 and 2004. During the same period, the share of alternative modes for commuting increased from 23.3 percent to 25.9 percent, reversing the trend of a steady decline.

In addition, between 2005 and 2006, total VMT grew slightly about 0.8 percent, lower than either the population growth (1.2 percent) or job growth (2.2 percent)(Figure 67). Total VMT in 2006 was about the same level as in 2004. It should be noted that historically, the rate of VMT growth was much higher than that of population growth. Finally, VMT per household in the region actually declined for two consecutive years between 2004 and 2006 (Figure 68).



Figure 67

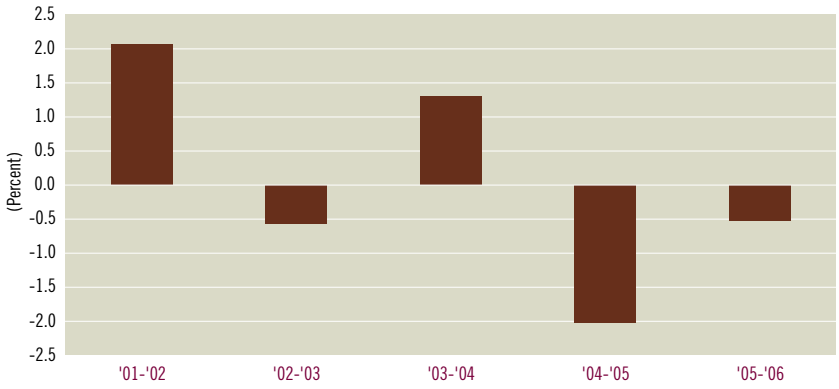
Growth of Vehicle Miles Traveled (VMT) vs. Population
(2000 as the Base Year = 100)



Source: California Department of Transportation

Figure 68

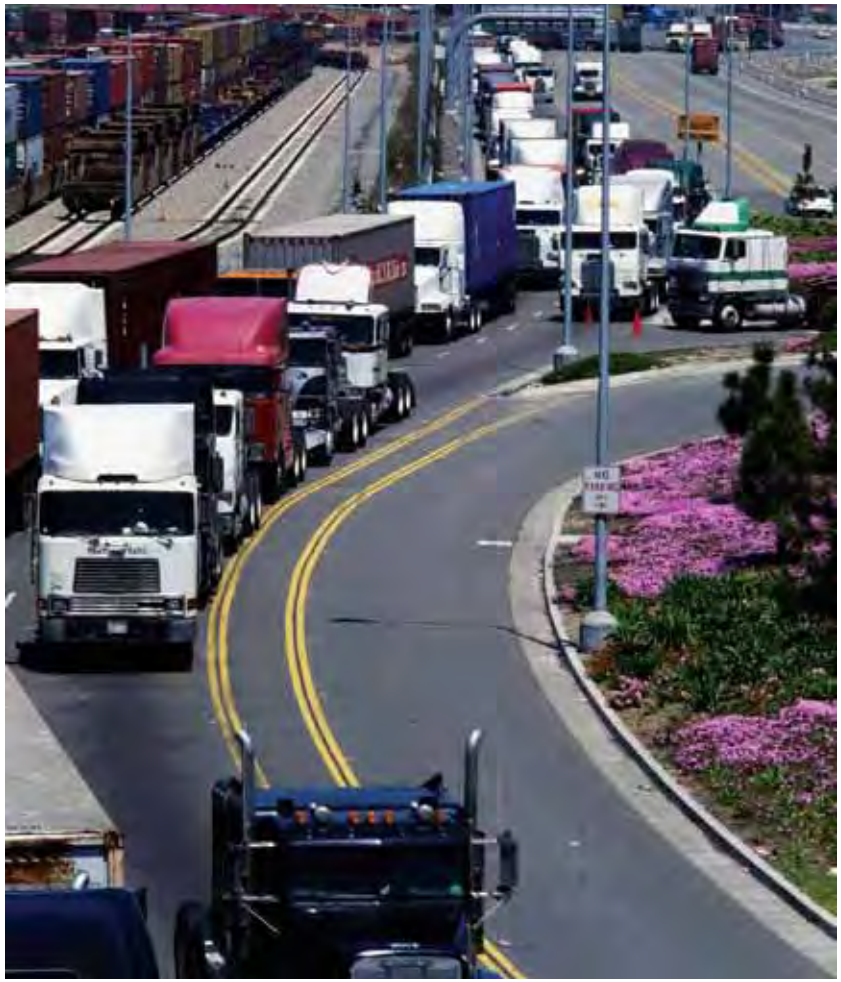
Vehicle Miles Traveled (VMT) per Household
(Percent Change)



Source: California Department of Finance and Department of Transportation

Impacts of Truck Through-Traffic on Congestion in the Region

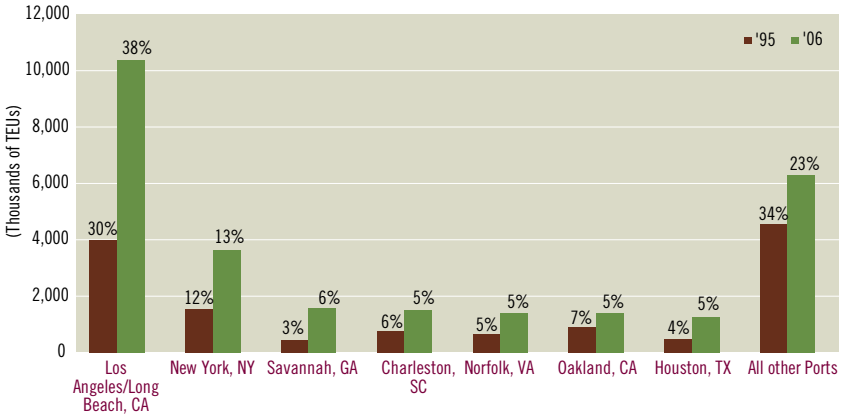
The SCAG region has the largest container port complex in the nation. During the past 10 years, the San Pedro Ports of Long Beach/Los Angeles have further increased their dominance. Port-related international container traffic has achieved double-digit growth yearly for more than a decade. Between 1995 and 2006, total number of international



(loaded) container traffic at the twin ports increased from about 4 million to 10.4 million TEUs (twenty-foot equivalent unit), the highest in the nation. The share of the region's container traffic also expanded from 30 percent to 38 percent of the national total during the same period. Ports of New York and Savannah (Georgia) ranked second and third, with only 13 percent and 6 percent share respectively in 2006 (Figure 69).

Figure 69

Port International (Loaded) Container Traffic
(Thousands of TEUs and Share of the National Total)

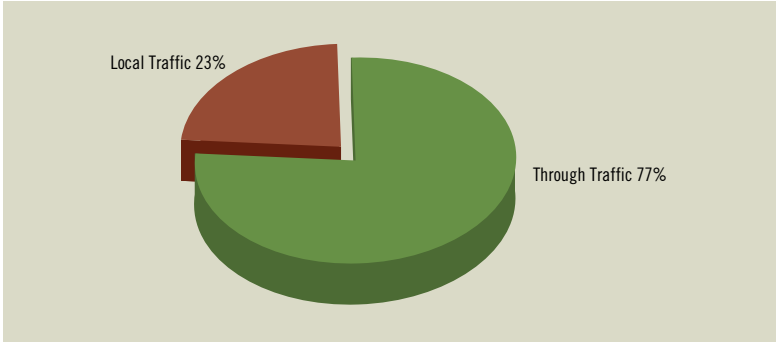


Source: Port Import/Export Report Service

Among the port container-related freight traffic in the region, about 77 percent were estimated to be through traffic, i.e. with final destinations outside the region (Figure 70).[7] Among the metropolitan areas in the nation, the SCAG region ranked first in terms of the value of outbound shipments originating within a metropolitan region.[8] The Chicago region ranked second but with only 60 percent of the value of outbound shipments when compared to the SCAG region.

Figure 70

Port Container-Related Freight Traffic in the SCAG Region



Source: Estimates based on the Draft Multi-County Goods Movement Action Plan

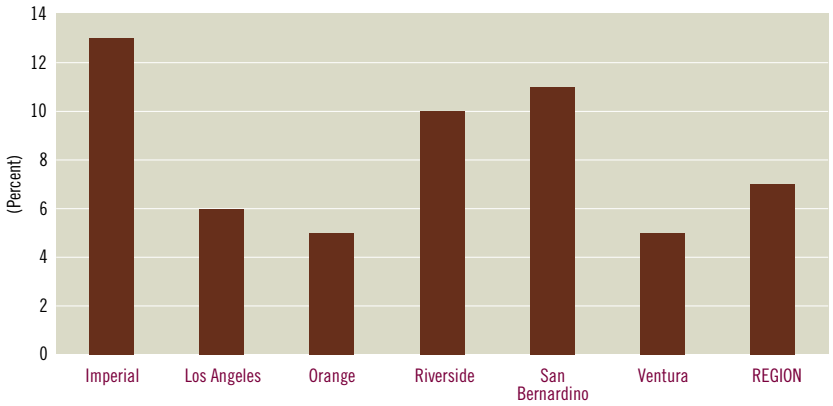
In 2006, truck traffic accounted for 7 percent of the total VMT in the region. However, truck VMT share varied among counties (Figure 71). Specifically, the three inland counties had significantly higher truck VMT share than the coastal counties, ranging from 10 percent



in Riverside County to 13 percent in Imperial County. For the three coastal counties, truck VMT shares were between 5 and 6 percent. Trucks are much larger, heavier and accelerate more slowly than passenger vehicles, and thus have much greater impacts on traffic flows than passenger vehicles. On a flat terrain, a heavy duty truck could be equivalent to 2.5 passenger vehicles in its impact on the capacity. As trucks travel up a grade, their speeds decrease and impacts on congestion become even more severe. *Consequently, the truck VMT share statistics underestimate their actual impacts on traffic congestion in the region.*

Figure 71

Truck VMT Share, 2006

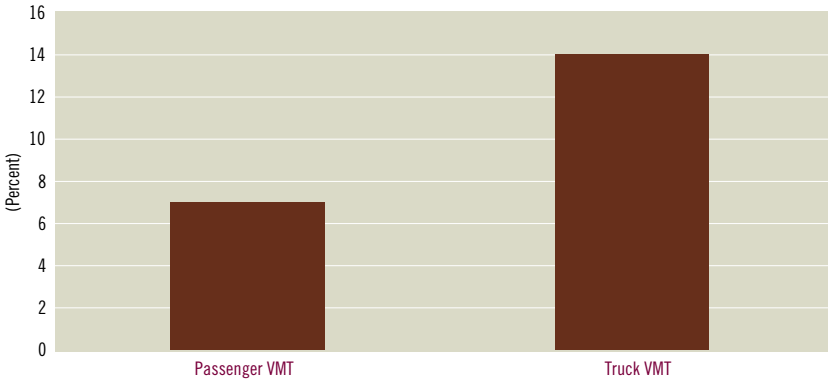


Source: California Department of Transportation

Due to the significant increase in international trade, truck VMT has also been growing at a much faster rate than passenger VMT. Between 2000 and 2006, truck VMT grew 14 percent, doubling the rate of passenger VMT growth at 7 percent (Figure 72). By 2035, total truck VMT in the region are estimated to almost double the current level.

Figure 72

VMT Growth - Passenger vs. Truck, 2000-2006



Source: California Department of Transportation

Though two-thirds of the truck VMT take place during the off-peak period, there are various freeway segments in the region that carry heavy truck volumes during the peak periods (i.e., from 6 to 9 a.m. and 4 to 7 p.m.). Due to the location of the San Pedro port complex, those segments are located in the central part of the regional transportation system, and tend to generate disproportionate impacts than otherwise. For example, the I-710, SR-60, and I-15 freeways are heavily impacted by trucks now and will become even more congested in the future. The SR-60 Corridor between I-710 and I-15 is one of the most heavily used freeways by trucks engaged in inter- and intra-regional goods movement, serving both port and domestic traffic. I-15 is the primary freight corridor between Los Angeles and the states to the north and east.[9]

In the region, the most significant goods movement patterns are east-west within Los Angeles County. The spin-off patterns include, for example, travel to and through Riverside and San Bernardino counties and other points eastward. The second most significant goods move-

ment patterns are north-south within Los Angeles County between the ports and intermodal yards and warehouse distribution centers.10

Highway Fatalities

Why is it important?

Highway accidents are the leading cause of death for people between the ages of 4 and 33.[11] Highway fatalities at 42,642 deaths in 2006 nationally accounted for about 95 percent of transportation-related deaths. Highway accidents and other incidents also accounted for more than 40 percent of the total annual delay of the region's highway system.

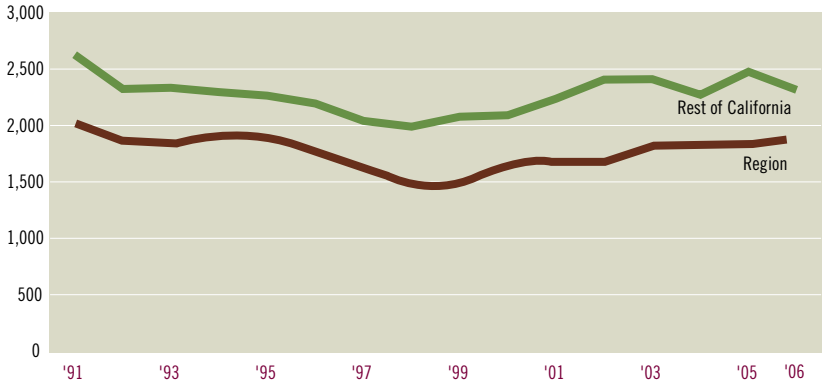
How are we doing?

In 2006, motor vehicle crashes in the region resulted in 1,881 fatalities (about 5 deaths per day), a slight increase (3 percent) from 2005 (Figure 73). For the rest of California, total number of highway fatalities of 2,316 in 2006 represented a 6 percent reduction from 2005. At the national level, total number of highway fatalities fell slightly from 43,200 deaths in 2005 to 42,642 deaths in 2006, about a 1.3 percent decrease.[12]



Figure 73

Highway Accident Fatalities

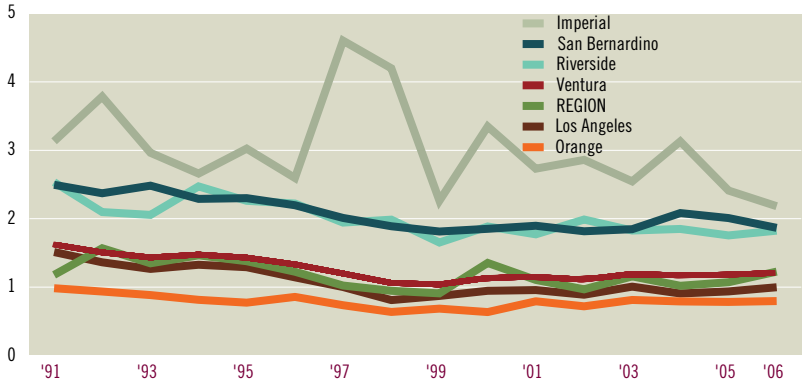


Source: California Highway Patrol with 2006 preliminary data

Within the region, Imperial County reduced its highway fatality rate noticeably in 2006. Between 2005 and 2006, highway fatality rate also decreased in San Bernardino County while the remaining four counties experienced slight increases (Figure 74). *In 2006, the region's highway accident fatality rate at 1.21 persons per 100 million vehicle miles traveled was higher than the national average for urban areas (0.94 persons per 100 million vehicle miles traveled). The highway fatality rate in the region in 2006, though about the same as in 2005, was the highest since reaching its lowest level in 1998. However, the fatality rate in 2006 was about 25 percent below the 1991 level (1.62 persons per 100 million vehicle miles).*

Figure 74

Highway Accident Fatalities
(Per 100 Million Vehicle Miles Traveled)



Source: California Highway Patrol with 2006 plemilinary data and California Department of Transportation

Airports

Why is this important?

Air transportation is vitally important to the regional economy of Southern California. Because of its geographical location, Southern California relies heavily on air transportation services to access and interconnect with domestic and foreign markets. For example, airborne exports accounted for almost 46 percent of the total value of commodity exports out of the Los Angeles Customs District (LACD) in 2006.[13] Adequate aviation capacity and quality services are essential to the tourism, business, and trade sectors of the regional economy.

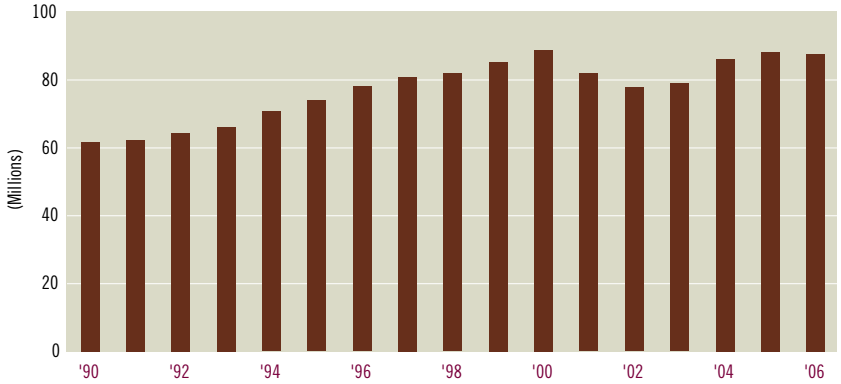
How are we doing?

Total air passengers in the region in 2006 experienced a very slight decrease of 0.6 million (0.7 percent) reaching 87.7 million. This was the first decline since 2002. Contributing factors included higher air fares due to a sharp rise in fuel prices as well as reductions in the number of flights. Total air passengers in 2006 was still somewhat below the 2000 (pre-September 11) record level of 89 million (Figure 75).

Among the 87.7 million passengers, about 70.6 million (or 80 percent) were domestic while 17.1 million (or 20 percent) were international. At Los Angeles International (LAX), the share of international passenger traffic has been increasing from 25.8 percent in 2000 to 27.7 percent in 2006.

Figure 75

Air Passenger Traffic at Major Regional Airports

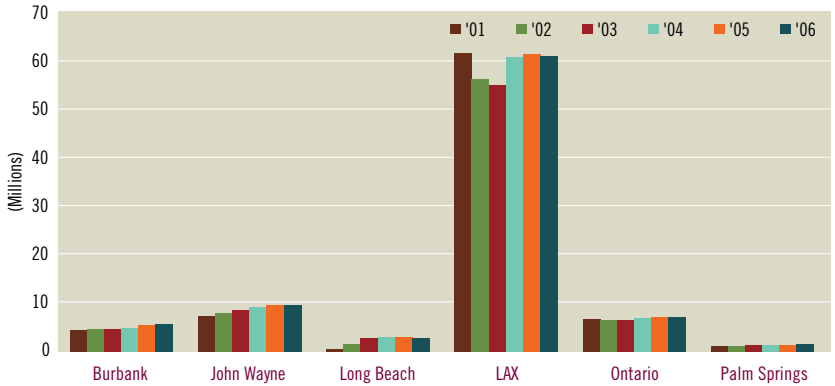


Source: Data gathered from airports

Within in the region, almost every major airport maintained the same passenger level in 2006 as in 2005 except Long Beach which experienced a 9-percent loss (Figure 76). Between 2000 and 2006, the share of LAX in total air passengers in the region decreased from 76 percent to just below 70 percent.

Figure 76

Air Passenger Traffic by Airport



Source: Data gathered from airports

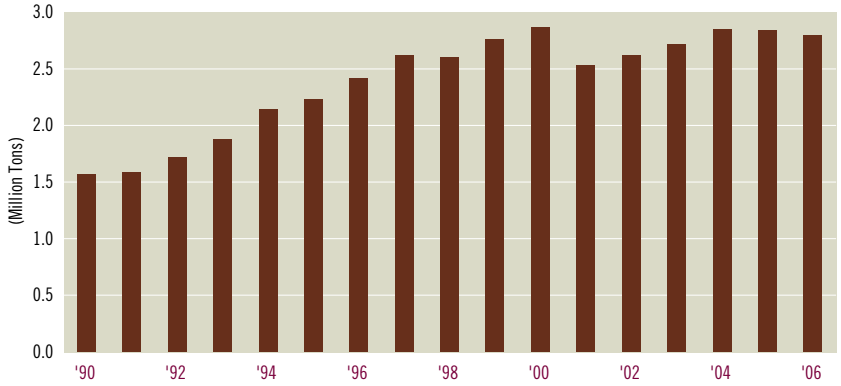
Total air cargo in the region's airports reached over 2.8 million tons in 2006, a very slight decline (1.5 percent) from the 2005 level and was still a little below the 2000 record level (Figure 77). Between 1970 and 2000, air cargo in the region grew at a rate of 5.4 percent annually. About three-quarters of the region's air cargo traffic went through LAX while close to 20 percent passed through the Ontario International Airport. Ontario Airport is the west coast hub of all UPS air cargo operations and is also a major distribution center for FedEx. The remaining 5 percent was spread among four other airports: Bob Hope (Burbank), Long Beach, John Wayne and Palmdale.



LAX was the nation's second busiest international air freight gateway by value of shipment behind only John F. Kennedy Airport in New York. The major markets for freight moving through LAX are South Korea, Japan, and Taiwan. Some of the major commodities exported through LAX are vegetables, fruits, and nuts; clothing; computer equipment; and medical equipment, while the leading imports are apparel, computer equipment, audio and video media, and office machinery.[14] LAX is one of only three major freight gateways in the nation that handles more exports than imports in value terms. By 2030, total air cargo in the region is projected to reach 8.7 million tons, more than triple its 2006 level.[15]

Figure 77

Air Cargo in the Region's Six Largest Airports



Source: Data gathered from airports

In 2006, among the ten largest airports in the world, LAX ranked 5th in passenger traffic, behind Atlanta, Chicago, London and Tokyo (see Figure 137 page 152). LAX also ranked 10th in total cargo volumes in



2006, surpassed by Shanghai, Louisville and Singapore since 2005 (see Figure 138 page 152).

Ports

Why is this important?

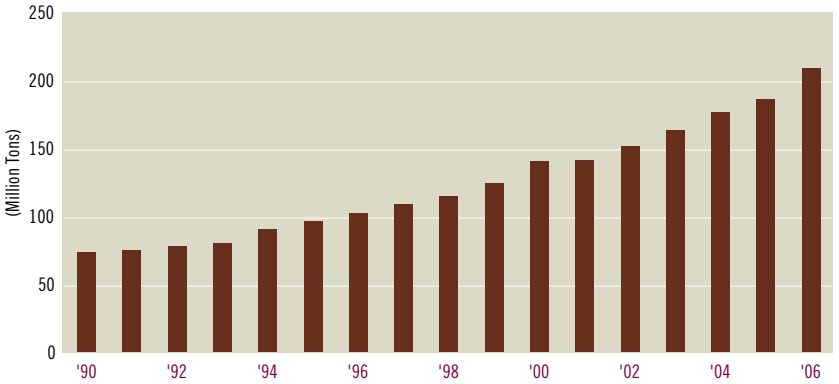
Almost 85 percent of the imports coming through the Los Angeles Customs District (LACD) arrive at the region's ports.[16] Continuing to provide a world-class port infrastructure is critical to sustaining a growing and prosperous regional economy.

How are we doing?

Total traffic at the Ports of Los Angeles and Long Beach increased from 187 million tons in 2005 to 210.4 million tons in 2006, a 12.5 percent increase, higher than the 5.2 percent increase during the previous period (Figure 78). *In 2006, the Los Angeles/Long Beach port complex ranked fifth in the world in container traffic* (15.8 million TEUs handled including empty containers) following Singapore (24.8 million), Hong Kong (23.2 million), Shanghai (21.7 million) and Shenzen, China (18.5 million).[17] By 2020, total container traffic at the twin-ports is projected to more than double their 2006 level, reaching 36 million TEUs.[18] In 2006, the twin-ports also maintained their dominant role among West Coast ports, attracting 58.3 percent of the total traffic.

Figure 78

Port Cargo at Los Angeles and Long Beach



Source: Los Angeles Economic Development Corporation

Activities at the ports have been identified as the largest source of air pollution in the region, a condition that will increase over time as port traffic increases. Port-related pollution has posed serious public health impacts on local communities and the entire South Coast Air Basin. For instance, a substantial contributor to air pollution is the low-grade diesel fuel used by ships. In December 2005, the California Air Resources Board (ARB) instituted a requirement for the use of higher-grade, less polluting diesel fuel within 24 miles of the California coast. In November 2006, the governing boards of the Ports of Los Angeles and Long Beach approved the $2 billion Clean Air Action Plan. The

plan aims to reduce port-related pollution from vessels, trains, trucks, and terminal operating equipment by 45 percent over the next 5 years by requiring, among other measures, the use of electric shore power and clean fuels and accelerating the conversion to a cleaner truck fleet.

Between 2005 and 2006, traffic at Port Hueneme decreased very slightly by 0.7 percent, from 4.6 to 4.57 million tons, following a 14 percent increase during the previous period. Only about 8 percent of the cargo shipments at Port Hueneme were through containers. Handling about 220,000 metric tons of automobiles, the port is one of the load centers for the import and export of automobiles.

The Southern California Survey 2007: Continuities, Changes, and More Diversified Opinions about Quality of Life

Kim Haselhoff, Ph.D. and Paul Ong, Ph.D.

Public attitudes and opinions are important in the policy realm. In order to develop sound legislation and policy, leaders need to understand what people value and what concerns they may have. To better address these questions the UCLA Lewis Center for Regional Policy Studies instituted the Southern California Survey (SCS) in 2005. The survey, now in its third year and final year, is designed to gather the views and opinions of Southern California residents on critical public policy issues in this region. This essay presents findings from the most recently completed survey of Southern California residents (those living in the counties of Los Angeles, Orange, Riverside, San Bernardino, and Ventura), as well as some comparisons to previous years. Basic information about the survey is included in the box below and details of the survey can be found at: http://lewis.sppsr.ucla.edu/special/socalsurvey/index.cfm. Imperial County, though not part of the SCS samples, is part of the Southern California Association of Governments (SCAG) region which also includes the five counties mentioned above.



About the Survey

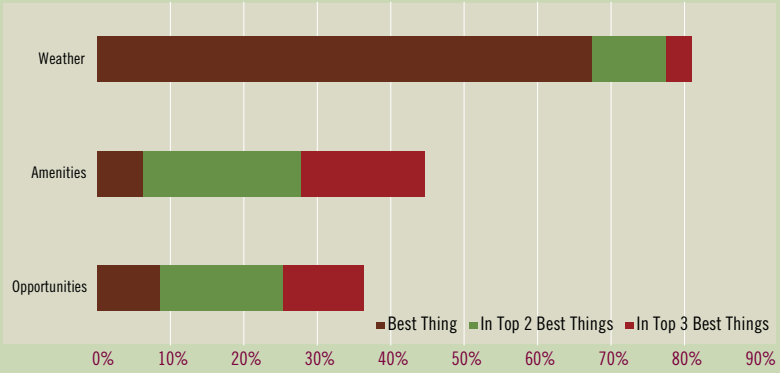
The 2007 Southern California Public Opinion Survey is supported by the UCLA Ralph and Goldy Lewis Center for Regional Policy Studies and is designed to gather the views and opinions of Southern California residents on critical public policy issues in this region.

The Survey was conducted in English and Spanish during the months of February, March, April and May 2007 using random digit dialing, and the data were collected by The Social Science Research Center at California State University, Fullerton. There are 1502 completed surveys for the five counties: Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The sample is divided proportionally by county household population. The characteristics of the sample by age, ethnicity, income, education and nativity are roughly consistent with the 2005 American Community Survey, though SCS respondents do tend to be slightly older. There is a sampling error of +/- 2.5 percent at the 95 percent confidence level for the full sample. (Sampling error may be larger for subpopulations)

While this essay does identify problems in the region, it should be noted that Southern California is an attractive place to live. Over three-quarters of survey respondents believe the weather is the best thing about the region, but others also mentioned amenities (such as outdoor recreation, cultural amenities, entertainment, restaurants/food, and shopping), (45%), and opportunities, including educational and economic opportunities, among others (36%), (see Figure 1). Two thirds of survey respondents also believe that things are going somewhat well or very well in the region as far as quality of life is concerned (see

Figure 2). In addition, 66 percent of respondents believe things will stay the same or get better in the next twelve months, versus only 31 percent who believe things will get worse. Residents in Ventura County are most satisfied with quality of life, with 76 percent of residents believing things are going somewhat or very well. Residents of San Bernardino County are least satisfied, though 60 percent still say things are going very well or somewhat well.

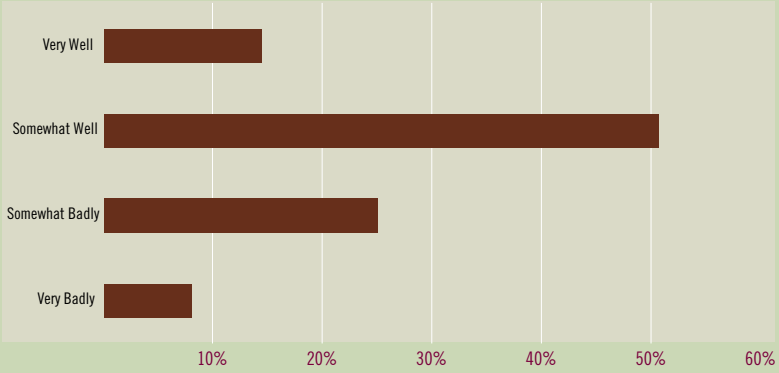
Figure 1: Top Three Best Things About Living in Southern California



Source: Lewis Center for Regional Policy Studies, UCLA, Southern California Survey 2007, N=1502

Data from the 2007 Los Angeles Riots 15th Anniversary Resident Follow Up Survey conducted by the Leavey Center for the Study of Los Angeles (Guerra, et al, 2007) indicate that residents of Los Angeles are generally optimistic about the city as well, though not quite as positive as southern California residents in general. In Los Angeles, 51 percent believe that things in the city are going in the right direction, or staying the same, and 39 percent say they are going in the wrong direction. Interestingly, the Los Angeles survey also found that naturalized citizens were most optimistic, as 58 percent feel things are going in the right direction or staying the same, versus 48 percent of U.S. born residents, and 52 percent of non-citizens. On the other side, 46 percent of native born Angelenos feel things are going in the wrong direction, versus 31 percent of non-natives (naturalized and non-citizens). The SCS did not find such significant differences in opinion among these groups on the quality of life questions, though non-citizens do appear slightly more positive than others. Finally, as for financial security, 69 percent of southern California residents report feeling financially secure, and 19% said they felt very secure, which is about the same as last year. Despite these positives, however, residents do have some serious concerns about life in the region. One challenge in improving the quality of life in Southern California is to continue to find innovative solutions for the major problems identified by residents in the survey.

Figure 2: How are things going in Southern California?



Source: Lewis Center for Regional Policy Studies, UCLA, Southern California Survey 2007, N=1502

In 2007 Southern Californians rated the top problems in the region as:

- Immigration
- Transportation
- Crime
- Economy

- Education
- Pollution/Environment

Immigration has emerged as the top problem in the region, outranking even the usual traffic and transportation concerns (though not by much). The region has been the primary gateway for immigration, both legal and illegal, for several decades, but clearly the national debate has put this issue firmly on the radar over the past year. The economy, crime, and education made the top problems list again this year, as did the environment, though it was bumped from third place down to sixth place on the list. Air quality is undoubtedly a concern this year as it was last year, but perhaps has been overshadowed by the national focus on immigration.

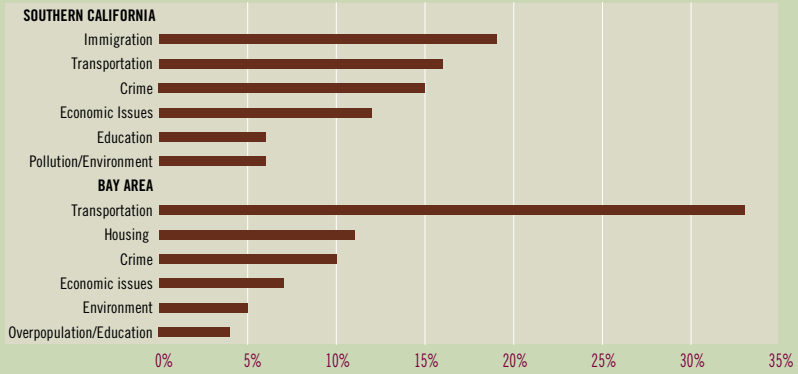


The Southern California Survey (SCS) also looked at local government performance in the region and found that a majority of Southern California residents have some degree of confidence in their local government, although they have less confidence in local government's ability to solve the problems that most affect them.

Overview of Region's Most Important Problems

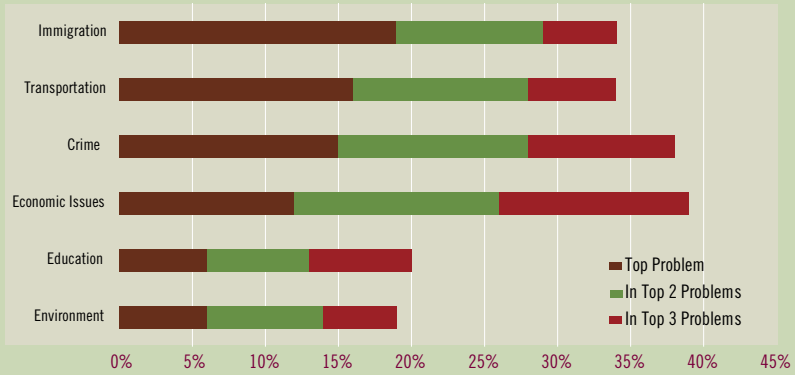
Figure 3 displays the top six problems in Southern California, as well as the top six problems in the Bay Area, for comparison (Bay Area Council, 2007). Immigration, transportation, crime, the economy, education and the environment are the top six problems cited by Southern California Survey respondents. Many of these problems are related to life in a large metropolitan area, so it is not surprising that the Bay Area shares some of the same concerns (the Bay Area is the second largest metropolitan region in the state following Southern California). Transportation is a top concern in both regions, though it ranks more highly in the Bay Area. Housing is still a top concern in the Bay Area, as it was last year, but in Southern California it has not made the top problems list since 2005. The economy, crime, and education continue to be high on the list in both regions. We also looked at the top problem by county in Southern California and immigration was the top concern in Ventura, Riverside, San Bernardino, and Orange counties, though it tied with transportation for the top spot in Orange County. Crime was the top concern in Los Angeles County. Figure 4 displays the top problems in the region by all three responses (respondents were asked to name the top three problems in the region).

Figure 3: Top Problems in Southern California and the Bay Area



Source: Lewis Center for Regional Policy Studies, UCLA, Southern California Survey 2007, N=1502; Bay Area Poll

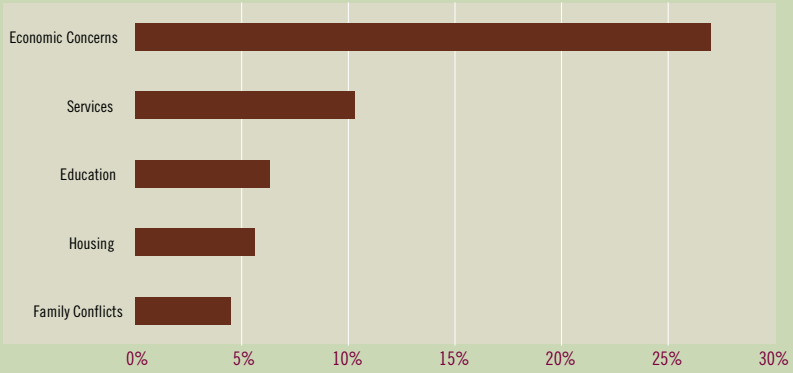
Figure 4: Top Problems by First, Second and Third Response



Source: Lewis Center for Regional Policy Studies, UCLA, Southern California Survey 2007, N=1502

The SCS also asked respondents about the top problems facing his or her own family today (see Figure 5). The greatest concern for families is economic issues, including jobs, finances, debt, cost of living, and retirement, among others. Services are the second top problem. This category included any government or social services, but health care was the primary concern here. Education, including paying for college, was the third top problem. Finally, housing costs, and family conflicts, including having enough time for family, were also big concerns.

Figure 5: Top Problems in Your Family



Source: Lewis Center for Regional Policy Studies, UCLA, Southern California Survey 2007, N=1502



Perception of Problems by Demographic Groups

A breakdown of the top three problems according to ethnicity, education, age, and income indicates much more variation in opinion than last year when almost everyone agreed that transportation was the top problem. This year immigration was the top concern among older, White respondents, while crime was the top concern for other ethnic groups and younger respondents, as well as lower income respondents (perhaps reflecting areas where these groups live). Transportation was the top concern only among the highest income earners, and across all levels of education. We do see a good deal of consistency in the third most important problem (not shown in the graph), which almost all agreed to be economic concerns. Economic concerns were also the top problem noted for families across all demographic groups. The top problem as indicated by demographic group (and county) is displayed in Figure 6.



Figure 6: Most Important Problem by Demographic Groups/County

		Most Important Problem		
		Immigration	Crime	Transportation
By Ethnicity	White	✓		
	Latino		✓	
	Other		✓	
By Education	High School or Less			✓
	Some College			✓
	BA or Higher			✓
By Age	18 - 35		✓	
	35 -54	✓		
	55+	✓		
By HH Income	Less than $50,000		✓	
	$50,000 - $100,000	✓		✓(tie)
	$100,000+			✓
By County	Los Angeles		✓	
	Orange	✓		✓(tie)
	Riverside	✓		
	San Bernardino	✓		
	Ventura	✓		

Source: Lewis Center for Regional Policy Studies, UCLA, Southern California Survey 2007, N=1502

Background on Top Six Problems

The following section provides a brief overview of the top problems identified by residents so the reader has a basic understanding of the more objective challenges facing the public and local government.

Immigration

The Southern California region is home to over 5 million foreign-born residents (2005 American Community Survey) and has been a primary gateway for immigration throughout the late twentieth century to the present day. In Los Angeles County 36 percent of the population is foreign born. As the immigrant population grows nationally, California is actually seeing fewer immigrant arrivals. According to one source, the number declined by 10 percent in the 1990s and by 30 percent in Los Angeles County (Rodriguez, 2007).



Estimates of the number of illegal immigrants in the U.S. vary widely. As of 2003, the US Citizenship and Immigration Services put the number at 7 million, growing at rate of 500,000 annually, while the Pew Hispanic Center estimates that the number is closer 12 million today, based on the Current Population Survey (Knickerbocker, 2006). Although estimation methods vary, the Public Policy Institute of California claims that the number of illegal immigrants coming to the U.S. is higher than ever, outnumbering legal immigrants for the first time (Johnson, 2006). California is home to more illegal immigrants than any other state in the nation, an estimated 2.4 million, although Arizona has become the primary border crossing area in the past few years, and now has a higher percentage of illegal immigrants per capita (ibid).

The recent congressional debates over immigration have fueled concerns about immigration throughout the state and the nation. The debate has also put immigration at the forefront of Southern California concerns. While the issue was in the top ten problems in 2005, it moved up to the number five spot last year, and the number one spot this year. The latest attempt at immigration reform, which was highly controversial, ended in June when the bill failed to make it out of the Senate.

Transportation

Transportation is still a major concern in the region. Although various responses related to transportation were offered, by far the most common response to the question about the region's most important problem was traffic. Although Southern California does not have the highest average commute times in the U.S., it does rank in the top ten for large cities (population 250,000 or greater). The 2005 ACS ranks Riverside (city, not county) as having the fourth longest commute, and Los Angeles the sixth longest commute (U.S. Census Bureau, 2005). The region also stands out for the level of congestion. The Texas Transportation Institute recently released their latest report, based on 2005 data, which indicated, "Los Angeles and Orange counties have retained their infamous reputation as the worst region in the nation for traffic delay" according to the Los Angeles Times. Motorists in these counties spend an average of 72 extra hours in rush hour traffic according to the report. Traffic in the Inland Empire is worsening as well, with motorists there averaging 49 extra hours stuck in traffic at peak times. Some experts claim that even these statistics underestimate the severity of congestion in the region (Rabin and Weikel, 2007).

Crime

According to the California Department of Justice, violent crime has actually been declining since the early-1990s. The violent crime rate decreased considerably in each of the five Southern California counties between the peak year 1992 and 2006, dropping by almost half. Property crimes also decreased by almost one-third in the region between 1996 and 2006. The juvenile felony arrest rate in the region in 2003 was only



about 43 percent of its 1990 level (California Department of Justice, 2007). So overall the concern with crime seems to belie the statistics.

The Economy

The economy is again the fourth most important problem in the region, down from the second most important concern two years ago. However, it is by far the highest concern within families in the region. The State of California Employment Development Department Labor Market statistics indicate that the annual average unemployment rate remained virtually the same (averaging a fairly low 4.7 percent) in all five southern California counties from January-February 2006 to January–February 2007. The rate is higher for certain groups and communities though, and there is some concern that many of the jobs most available in the region are service jobs and jobs in the informal economy, both of which are lower paying and provide few or no benefits or security. However another reason for the large number of responses in this category had to do with both the high cost of living in the region, and rising energy costs. The U.S. Energy Information Administration website confirms that residential electricity prices have been rising steadily over the past few years (both nationally, and in the Pacific region), as have retail gasoline prices (although with more price fluctuations along the way). California ranks in the top ten in a comparison of retail energy costs by state, and these costs increased about 7 percent from February 2006 to February 2007 (Data Center Knowledge).

Education

Education is a statewide problem as well as a local one. A recent PPIC survey on the state of education in California found that 80 percent of Californians believe the quality of education in the state is at least somewhat of a problem, and 52 percent consider it a big problem, which is virtually unchanged from a similar survey in 2000 (Public Policy Institute of California, 2007). However PPIC also found that statewide, "the number of residents ranking education and schools as the most important issue facing California has fallen to its lowest point in three years" (ibid). They suggest that perhaps frustration with education in the state has led to a disengagement from the issue. Education statistics vary widely throughout the southern California region, and throughout





each county, depending on the school district. In Los Angeles County there have been improvements over the past several years, yet the United Way reports that less than one third of 3rd graders scored at or above the national average for reading in 2005. Only 60 percent of high school students will graduate with a diploma, compared to 72 percent for the state and 90 percent for the nation. Education has been a top issue on the SCS for each of the past three years.

Pollution/Environment

Although this year the environment placed sixth in the top problems ranking, in last year's SCS the environment ranked third. In that survey, about 60 percent of responses indicated pollution, or more specifically air pollution, as the greatest concern. A separate question later in the 2006 survey asked respondents about the most important environmental issue facing Southern California today. Over 50 percent rated air pollution as the most important environmental issue, with water pollution a distant second, at 9 percent. In some ways air quality in California in general has greatly improved over the past two decades. Several dangerous air pollutants that were at harmful levels twenty years ago no longer exceed health-based standards (California Air Resources Board). However, air quality continues to merit serious concern. As noted in the other guest essay in this report, SCAG is seeking declaration of a state and federal emergency to address the region's air quality. The major culprit is $PM_{2.5}$ pollution, but standards for other particulate matter and for ozone continue to be revised. Earlier this year the Air Resources Board released a study estimating 5,400 premature deaths per year due to $PM_{2.5}$ in the South Coast Air Basin, which is completely within the SCAG region. While pollution did not make the top five list of concerns on the survey this year, it is likely that the furor over immigration simply stole attention away from the issue as last year's survey confirms that residents are worried about pollution levels in the region.

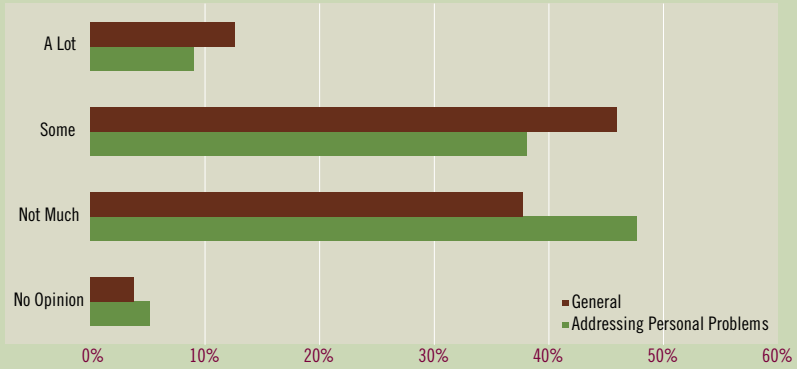
Confidence in Southern California Local Government

We should point out that perceptions of local government can differ greatly, as local governance is a fairly complex and fragmented system. Southern California's system of local government is broken up among several counties, almost two hundred cities, and numerous special districts. While California's local government structure is less complex than others nationwide the overlapping responsibilities can make it difficult at times to know who is in charge on any particular issue. However, it is useful to know how residents perceive their local government and how they feel about its performance on the region's problems.

For the last three years the SCS asked residents about their level of confidence in "your local government." Figure 7 displays the results for 2007. The two questions were about general confidence and confidence in local government's ability to solve the problems that most affect your own household or family. Southern California residents tend to have higher levels of general confidence in local government than

in its ability to solve problems that affect them personally. About 58 percent of respondents have at least some confidence (some or a lot) in local government generally, as opposed to the 47 percent who report some degree of confidence in solving problems that affect them. These figures are very similar to what we found in both the 2005 and 2006 SCS, although we do see a slightly higher percentage of respondents indicating "not much" general confidence in 2007 than we found in 2005 (see figure 8).

Figure 7: Confidence in Local Government



Source: Lewis Center for Regional Policy Studies, UCLA, Southern California Survey 2007, N=1502



Figure 8: Confidence in Local Government, 2005-2007



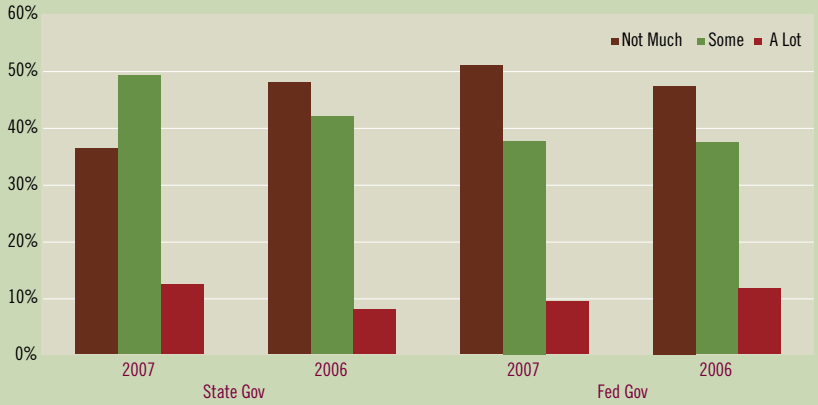
Source: Lewis Center for Regional Policy Studies, UCLA, Southern California Survey, 2005-2007

For comparison, Figure 9 illustrates the level of confidence in the state and federal government in 2006 and 2007 (these questions were not asked in 2005). While last year there was more confidence in local government than in the state and federal government, this year ratings of state government improved significantly, and were slightly higher than local government confidence ratings. Ratings of the federal government fell slightly. Last year 48 percent reported "not much" confidence in state government, while this year that number was down to 36 percent. Those reporting "not much" confidence in the federal government basically held steady, rising just slightly from 47 percent last year to 51 percent this year (still within the margin of error). Overall 62 percent have at least some confidence in state government while only 47 percent have at least some confidence in the federal government.

To compare confidence levels among demographic groups and in different areas in the region we calculated confidence scores for each respondent based on the responses to both of the confidence questions. The maximum score was 4, the minimum was –2. The average

confidence score overall was 0.52. While in previous years we did see some differences in confidence scores by group, this year there was little significant variation. The only significant difference in confidence scores was by region. While Los Angeles county residents had the lowest average confidence scores (.31), Coastal (Ventura, Orange counties) regions had the highest scores (.62). The Inland Empire (Riverside, San Bernardino counties) score was .44, similar to last year. Overall scores have been dropping over the past two years, particularly in the Inland Empire, where confidence scores dropped significantly last year but held steady this year. Los Angeles county scores were also lower this year than the last two years (down from .52 to .31).

Figure 9: Confidence in State and Federal Government, 2006-2007



Source: Lewis Center for Regional Policy Studies, UCLA, Southern California Survey, 2006-2007

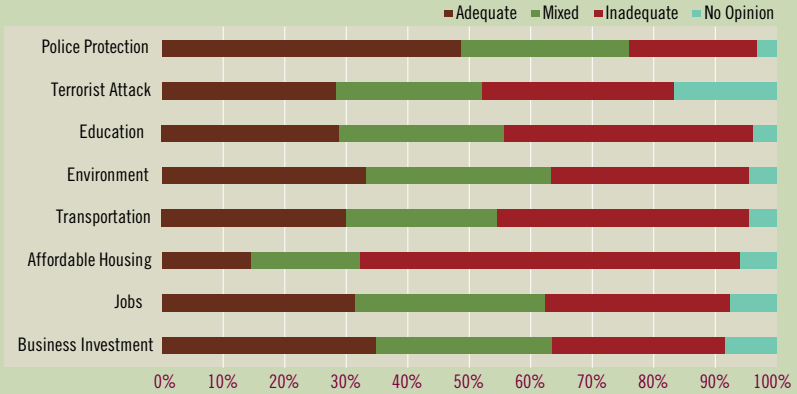
Local Government Performance on the Issues

The survey also asked respondents whether the performance of Southern California's elected officials in several different issue areas has been generally inadequate, mixed, or adequate. Residents are most satisfied with elected officials' performance on police protection, with almost 50 percent of respondents indicating that local government is doing an adequate job here. There was also relative satisfaction with protecting the environment, keeping and attracting jobs, and keeping attracting business investment in the region; over 60 percent of respondents indicated that performance on these issues was adequate or mixed. Respondents were slightly less satisfied with performance on improving transportation and education, and preparing for a terrorist attack, and very dissatisfied with performance in providing affordable housing in the region. Over 60% of respondents report elected official's performance on affordable housing as "inadequate" (see figure 10). In the Los Angeles Riots 15th Anniversary Resident Follow Up Survey, city respondents were asked to rate the issue areas (using a six point scale), as opposed to their elected official's performance on the issues, but Angelenos were similarly most displeased with the cost and availability of housing. Air quality was also a big concern in the city (the SCS asked about the environment). On the



positive side, city residents were also fairly satisfied with public safety and jobs/economy, similar to responses regionally.

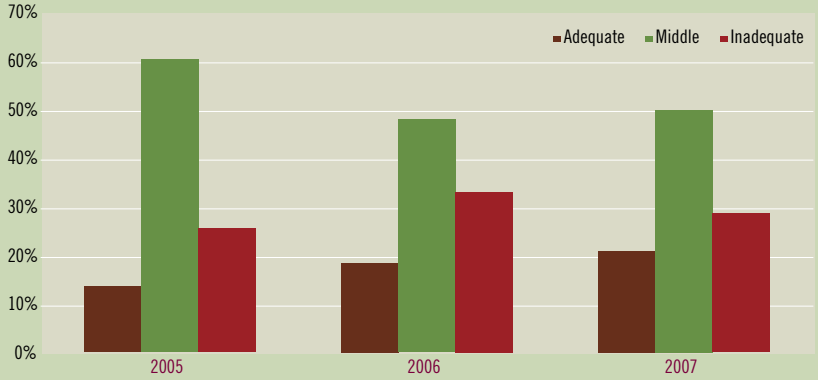
Figure 10: Government Performance, 2007



Source: Lewis Center for Regional Policy Studies, UCLA, Southern California Survey 2007, N=1502

For an overall indicator of local government performance we created a score based on responses to each of the performance questions. Each adequate response received a "1" and each "inadequate" response received a "-1". (The mixed response did not receive a score). Then we subtracted the "inadequate" scores from the "adequate" scores. If a respondent answered "adequate" on all eight issues areas their net score would be an 8. Conversely, if they responded "inadequate" on all eight issues areas their net score would be a –8. Although almost half of responses (50 percent) are in the "middle" range of –2 to 2, we still see a higher percentage of "inadequate" scores than "adequate" scores. However the scores are slightly better than they have been the last two years. In 2005 fourteen percent of scores were in the "adequate" range. In 2006 that number was up slightly to 18 percent, and this year, 21 percent. However the most significant change is the increase in intensity of opinion from 2005, when 60 percent of responses fell into the middle range. In 2006 and 2007 middle range responses dropped to 50 percent, and we see a corresponding increase in "adequate" and "inadequate" responses (see Figure 11).

Figure 11: Net Performance Scores, 2005-2007



Source: Lewis Center for Regional Policy Studies, UCLA, Southern California Survey, 2005-2007

Government Performance Ratings by Demographic Groups

Opinions on government performance tend to vary by demographics and geography. The differences here are generally slight, as most respondents choose the "middle" category. However there are some significant differences among groups in terms of who is most satisfied with government performance. Those with the lowest levels of education and the lowest incomes tend to give more "adequate" ratings than those in the higher categories. Younger residents are also more satisfied with government performance than older residents. As for ethnicity, Latinos are more satisfied with elected officials than are whites and other ethnic groups. Regionally Los Angeles residents are least satisfied with government performance, while those in the coastal counties are most satisfied. Responses within groups show little change from last year, although we do see a very slight decrease in the percentage of



"inadequate" responses almost across the board, with more significant decreases here among those in the "other" ethnic category, those in the Inland Empire, and those with the highest education levels. This change contrasts with the increase in inadequate ratings we observed among all demographic groups from 2005 to 2006. In a few cases inadequate ratings had risen over ten percent.

The overall picture here is that the majority of respondents, regardless of demographic group, offered an ambivalent response to the questions about government performance, indicating that most residents continue to lack strong opinions one way or the other. However the number of middle range responses continues to be lower than in 2005, indicating stronger feelings about local government performance in 2006 and 2007 than we found in 2005.

Discussion

Public opinion data provide a useful guide to policymakers as they attempt to address the public's concerns and priorities. However it is important to note that to some extent these opinions are influenced by factors out of the control of elected officials. The media is one example. Almost three decades of research have confirmed that the media does shape public opinion. For example, Page, et al, (1987), found that different news sources have different effects, with news commentators having a strong positive impact on policy preferences. Entman, (1989), found that the media influences political preferences by affecting what people think about. Agenda setting is a key outcome of media influence, reflecting the increase in perceived importance of any issue extensively covered by the media. More current research continues to refine what we know about who is most influenced by media and how news coverage affects beliefs and preferences.

Research clearly supports the premise that media coverage may increase concern where little is warranted, while diverting attention from issues that need to be addressed. We see this on two levels in this data. The concern with crime has been high on every SCS since 2005, despite a continuing drop in the crime rate, particularly in the past ten years. Without minimizing the level of crime in some areas, which may very well be a significant concern for residents, this does seem to be one issue that tends to be blown out of proportion by the media. Immigration is an issue which has recently received a lot of attention from the media and political leaders. While immigration certainly impacts the region a great deal as a result of the large number of immigrants who live here and enter the country here, it seems likely that the national debates and media coverage on immigration reform have elevated concern more than any specific issue that involves immigration locally. On the other hand, the air quality crisis in the region is a serious health threat that should be one of the foremost concerns for residents. While the region is known for poor air quality, it seems that new information on various particulate matter and the links to health have not been widely

publicized, which would help generate support for stricter air quality standards. So not only do public opinion polls tell policymakers what problems residents want them to address, it also tells policymakers what key problems are not on the minds of residents, but probably should be.

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Energy use, air quality, climate change and water supply issues are interrelated and must be addressed together.

Air Quality

Why is this important?

Good air quality is vital for the health of residents, nature and the economy. Human health effects of air pollution can range from lung irritation to cancer and premature death. Ecological effects include damage to crops and contamination of waters. Degradation in human and ecological health often adversely impacts economic well-being.

How are we doing?

The SCAG region includes four air basins: South Coast, Mojave Desert, Salton Sea and South Central Coast (Ventura County portion) (see Map on next page). An air basin generally has similar meteorological and geographical conditions throughout. Despite the improvements for the past three decades, almost the entire region still has not met the federal standards for ozone.[1] In addition, the most populous South Coast Air Basin with 16.5 million population has not met the federal standards for $PM_{2.5}$.

Since 1980, the region has accomplished significant improvements in its air quality particularly with respect to carbon monoxide (CO) and ozone. For example, the number of days exceeding the federal 8-hour CO standards in the South Coast Air Basin was reduced from 63 days in 1980 to zero days in 2006, and the SCAG region is now a CO attainment area. In addition, the number of days exceeding the federal 8-hour ozone standards in the South Coast Air Basin was reduced from 206 days in 1980 to 86 days in 2006. Even in the Inland Empire, emission levels have been reduced by almost half during the last decade. *Despite the significant improvements, the South Coast Air Basin still has some of the worst air quality in the nation. Specifically, the South Coast has the highest concentration of ozone and $PM_{2.5}$ in the nation. In addition, improvements to ozone and $PM_{2.5}$ have shown signs of leveling off over the past few years. Furthermore, the region and the state have faced significant challenges in developing and implementing plans to meet the attainment deadlines for ozone and $PM_{2.5}$.*

While control efforts in the past three decades gave relatively more emphasis first to carbon monoxide and then ozone, recent studies have confirmed the severe health impacts of air pollution, particularly for $PM_{2.5}$ as further discussed below and in the essay on air quality and health in this report. The enhanced understanding of health impacts has also changed the basis of assessment of air quality in the region.

Air quality trends are affected by emissions as well as meteorology (weather) and terrain. In particular, meteorology causes year-to year changes in air quality trends that can mask the impacts of emissions. However, long-term trends are closely related to the changes in emission levels.



Air Basins in the SCAG Region





$PM_{2.5}$

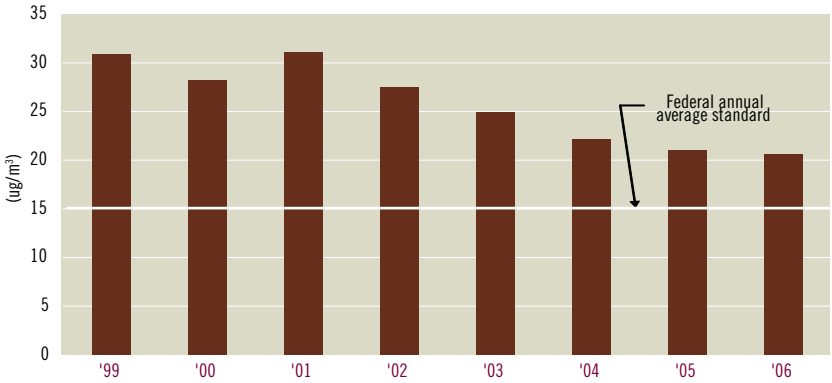
$PM_{2.5}$ is particulate matter with a diameter of 2.5 micrometers (um) or smaller. The diameter of a human hair is about 60 micrometers. $PM_{2.5}$ is a subgroup of finer particles within the classification of PM_{10}, particulate matter with a diameter of 10 micrometers (um) or smaller. Exposure to particulate matter aggravates a number of respiratory illnesses and may even cause early death. $PM_{2.5}$ poses increased health risks because it can penetrate deeper in the lung than PM_{10} and contain substances that are particularly harmful to human health. Both long-term and short-term exposure can have adverse health impacts.

Though the U.S. EPA established $PM_{2.5}$ standards in 1997, non-attainment designations for areas did not become effective until 2005. Within the SCAG region, only the South Coast Air Basin was designated as a non-attainment area with 2014 as the required attainment year. Within the state, San Joaquin Valley is the only other federally designated non-attainment area for $PM_{2.5}$. The State Implementation Plan (SIP) for $PM_{2.5}$ is due to U.S. EPA in April 2008 but was submitted earlier in fall 2007 along with the ozone SIP because many of the control strategies that reduce $PM_{2.5}$ precursor emissions are also needed to help attain the 8-hour ozone standard. State non-attainment designation for $PM_{2.5}$ is more encompassing and includes, in addition to the South Coast, the Western Mojave Desert Air Basin and Ventura County.

In 2006, the annual average $PM_{2.5}$ concentration in the South Coast Air Basin was 20.6 ug/m^3, a slight decrease from that in the previous year (21ug/m^3) but continuing to significantly exceed the federal standards of 15 ug/m^3 (Figure 79). Specifically, 11 of the 18 monitoring stations in the basin showed exceedance, with the Mira Loma area in Riverside County having the highest concentration. Since 2004, improvement to $PM_{2.5}$ has shown signs of leveling off.

Figure 79

$PM_{2.5}$ Pollution in the South Coast Air Basin
(Annual Average Concentration)



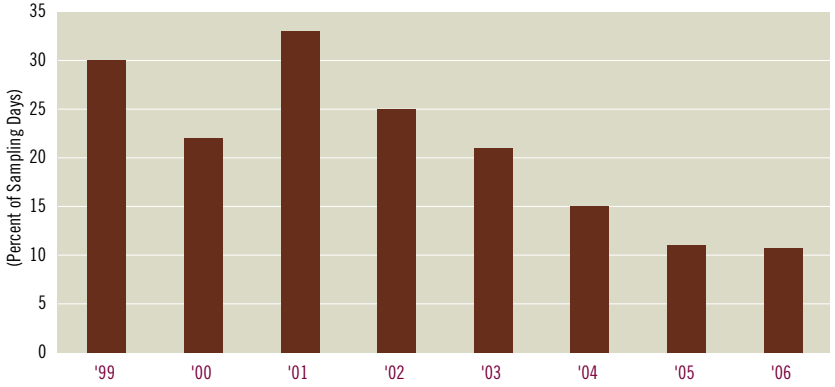
Source: South Coast Air Quality Management District

Effective December 17, 2006, the U.S. EPA revised the federal 24-hour $PM_{2.5}$ standard to be much more stringent, from 65 ug/m³ to 35 ug/m³. *In 2006, the South Coast Air Basin exceeded the (new) federal 24-hour standard for $PM_{2.5}$ on 11 percent of sampling days, though it did not have any exceedance as to the federal 24-hour standard for PM_{10} (Figure 80).* This is partly because $PM_{2.5}$ particles being smaller than PM_{10} particles are more difficult to control. It is expected that the U.S. EPA will designate the new 24-hour $PM_{2.5}$ non-attainment areas by November 2009 with the attainment year by approximately 2020.

Figure 80

$PM_{2.5}$ Pollution in the South Coast Air Basin

(Percent of Sampling Days Exceeding the New Federal 24-hour Standard of 35 ug/m³)



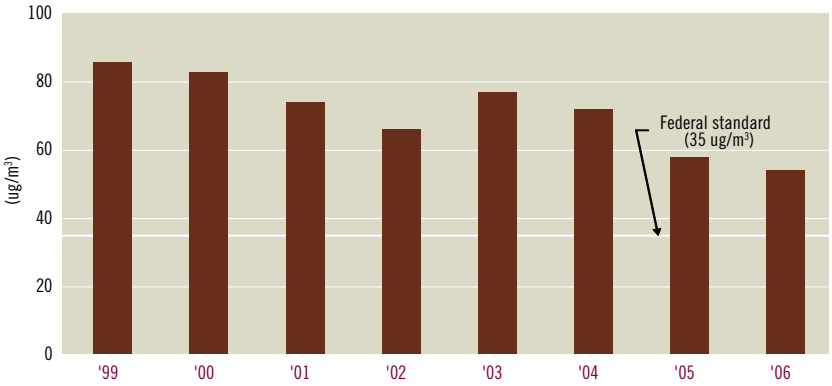
Source: South Coast Air Quality Management District

In 2006, the maximum 24-hour $PM_{2.5}$ concentration in the South Coast Air Basin at 54 ug/m³ also well exceeded the new federal standard of 35 ug/m³. Since 1999, there has been generally a downward trend in reducing the maximum 24-hour $PM_{2.5}$ concentration in the South Coast Air Basin (Figure 81).

Figure 81

$PM_{2.5}$ Pollution in the South Coast Air Basin

(98 Percentile of 24-hour Concentration)



Source: South Coast Air Quality Management District

On an annual basis, directly emitted $PM_{2.5}$ emissions contribute approximately 40 percent of the ambient $PM_{2.5}$ in the South Coast Air Basin, while 60 percent is formed secondarily. Among the directly emitted $PM_{2.5}$ emissions, about 55 percent are from areawide sources, while 33



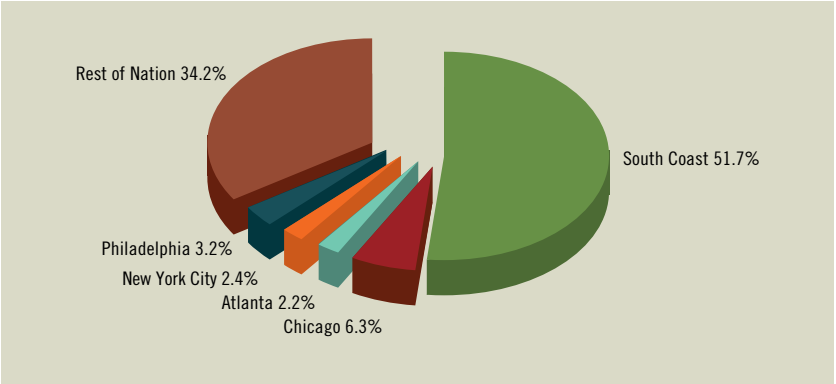
percent are from mobile sources and another 12 percent are from stationary sources. Attainment of the federal health-based $PM_{2.5}$ standard would demand significant reductions in $PM_{2.5}$ components within the next seven years. The $PM_{2.5}$ attainment strategy focused primarily on reductions of NO_X, SO_X, directly emitted $PM_{2.5}$, supplemented with additional VOC reductions that can be feasibly achieved by 2014. NO_X and SO_X emissions are both products of fuel combustion.

$PM_{2.5}$ is responsible for most of the serious health effects known from exposure to ambient air pollutants. It should be noted that the South Coast Air Basin has a disproportionate share of $PM_{2.5}$ exposure and hence suffered disproportionate impacts. Specifically, the South Coast has almost 52 percent share of the nation in population-weighted exposures to $PM_{2.5}$ above the national annual average standard (Figure 82). Accordingly, residents in the South Coast suffer extraordinary health impacts including an estimated 5,400 premature deaths annually as contained in Figure 83.[2] In comparison, highway accidents resulted in 1,881 deaths and there were 1,460 homicides in the region in 2006.



Figure 82

$PM_{2.5}$ Pollution
South Coast Air Basin Disproportionate Exposure



** Population-weighted exposures above the national annual average standard based on 2000-02 AIRS data*
Source: South Coast Air Quality Management District

Exposure to $PM_{2.5}$ pollution can shorten life by about 14 years for people who die prematurely. In addition, there is a 15 percent increase in the risk of overall premature death for each 10 ug/m^3 increase in $PM_{2.5}$ annual concentration. The groups most vulnerable to the $PM_{2.5}$ pollutant include infants and children, the elderly, and those with pre-existing heart or lung disease.

Figure 83

$PM_{2.5}$ Pollution – Annual Health Impacts
South Coast Air Basin

- 5,400 premature deaths
- 140,000 children with asthma and lower respiratory symptoms
- 980,000 lost work days
- 80% of emissions are under the state or federal jurisdictions and not within local control

Source: California Air Resources Board

On the other hand, about 80 percent of the emission sources for $PM_{2.5}$ are within the jurisdiction of state ARB (regarding e.g., on-road/off-road vehicles, motor vehicle fuels, and consumer products) or federal EPA (regarding e.g., vehicle emission standard, airplanes, ships and trains). Specifically, to achieve $PM_{2.5}$ attainment in 2014, about 56 percent of the emission reductions needed is within the state ARB jurisdiction while another 24 percent are within the federal EPA jurisdiction. *To have any reasonable expectation of meeting the $PM_{2.5}$ attainment deadline by 2014, the pace of improvement for $PM_{2.5}$ must accelerate under the federal and state jurisdictions.*

PM_{10}

Three air basins in the region have been designated as non-attainment areas for PM_{10}: the South Coast, Salton Sea and Mojave Desert. It should be noted that, effective December 17, 2006, the U.S. EPA revoked the PM_{10} annual standard but retained the 24-hour standard.

In 2006, the number of days exceeding the federal 24-hour standard (150 ug/m3) for PM_{10} increased slightly from 0 to 2.8 days in the Mojave Desert Air Basin, and from 8.5 days to 12.5 days in the Salton Sea Air Basin (Figure 84). The number of days with an unhealthy level of PM_{10} describes the chronic extent of PM_{10} pollution. *Between 2004 and 2006, the South Coast Air Basin did not experience any exceedance based on the federal 24-hour standard.*

Figure 84

PM_{10} Pollution
(Days Exceeding Federal 24-hour Standard)

Air Basin	'04	'05	'06
Mojave Desert	1.9	0	2.8
Salton Sea	7.8	8.5	12.5
South Coast	0	0	0

Source: California Air Resources Board

California state standards for PM_{10} are much more stringent than federal standards due to greater consideration given to the potential health impacts. Specifically, the state annual average standard for PM_{10} of 20 ug/m^3 is only 40 percent of the (revoked) federal standard of 50 ug/m^3. In 2006, both the Salton Sea and South Coast continued to significantly exceed the state annual average standards. In addition, the state 24-hour standard for PM_{10} of 50 ug/m^3 is only a third of the federal standard of 150 ug/m^3. In 2006, both the Salton Sea and South Coat air basins exceeded the state PM_{10} 24-hour standard on 241 days.[3]



Ozone

Beginning in June 2005, the national 1-hour ozone standard was revoked and replaced by a new 8-hour ozone standard that is more health protective. The new ozone standard is more stringent than the old standard but allows longer timeframe for attainment until 2023 for the South Coast. Currently, all four air basins in the region are designated as non-attainment areas for 8-hour ozone.[4]

Ozone is a colorless and poisonous gas. Ground level ozone is a major component of urban and regional smog. Ozone is a strong irritant, which can reduce lung function and aggravate asthma as well as lung disease. Repeated short-term ozone exposure may harm children's developing lungs and lead to reduced lung function in adulthood. In adults, ozone exposure may accelerate the natural decline in lung function as part of the normal aging process.

In 2006, ozone pollution worsened slightly in the South Coast Air Basin and Ventura County but improved in the Mojave Desert and Salton Sea air basins. In the most populous and polluted South Coast Air Basin, the number of days exceeding the federal 8-hour ozone standard increased slightly from 84 days in 2005 to 86 days in 2006, still the second lowest since 1976 (Figure 85). However, since 1998 ozone improvements have shown signs of leveling off.

Between 2005 and 2006, the maximum 8-hour ozone concentration in the South Coast Air Basin decreased very slightly from 0.145 ppm (parts per million parts of air) to 0.142 ppm, about half of the 1985 level.[5] The number of days for health advisories also decreased from 11 to 10 days between 2005 and 2006.[6]

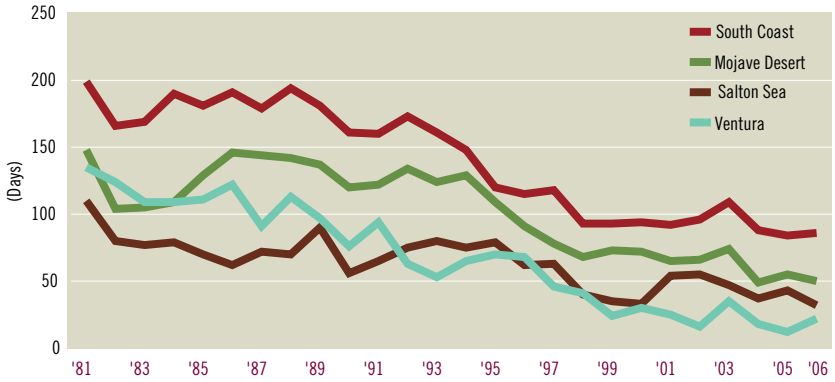
Between 2005 and 2006, Ventura County also increased the number of days exceeding the federal 8-hour standard, from 12 to 22 days. However, during the same period, both the Mojave Desert and the Salton Sea air basins experienced reductions in the number of days exceeding the federal 8-hour standard, from 55 to 50 days and 43 to 32 days



respectively. *Within the region, the Central San Bernardino Mountain area surpassed the federal 8-hour ozone standard for a total of 59 days in 2006 followed by the Perris Valley (53 days) and Banning Airport area (44 days) both in Riverside County, and Santa Clarita Valley (40 days).*

Figure 85

Ozone Pollution in Non-attainment Air Basins
(Number of Days Exceeding Federal Eight-Hour Standard)



** Ventura County is part of the South Central Coast Air Basin*
Source: California Air Resources Board and South Coast Air Quality Management District

Emissions of ozone precursors including NOx and ROG in the South Coast Air Basin are generally following a downward trend. For example, total emissions of NO_X were reduced from over 1,700 tons/day in 1975 to about 950 tons/day in 2005. This is primarily due to the reductions from on-road mobile sources as well as stationary sources. The reductions from on-road mobile sources were due to the more stringent vehicle emission standards and as newer, less-polluting vehicles become a larger share of the fleet. The reductions of NO_X emissions from stationary sources (e.g., electric utilities) are primarily due to increased use of natural gas as the principal fuel for power plants, and control rules that limit NO_X emissions.

In 2005, more than 90 percent of the total NO_X emissions in the South Coast Air Basin came from mobile sources. For example, heavy duty trucks were responsible for 320 tons/day of NO_X, a third of the total NO_X emissions in the South Coast Air Basin and more than half of the NO_X emissions from on-road mobile sources. As to "other mobile sources", major NO_X contributors are off-road combustion equipment, ships and trains. The NO_X emissions from off-road combustion equipment have been decreasing and offset the increases from ships.

Despite the large reductions of NO_X for the past three decades, significant reductions above and beyond those already achieved are still needed to meet the federal ozone standards by 2024 and $PM_{2.5}$ standards by 2014. Specifically, NO_X reductions primarily based on mobile source control strategies are essential for both ozone and $PM_{2.5}$ attainment.

Carbon Monoxide

In December 2002, the South Coast Air Basin met federal attainment standards for CO (with no violation in 2001 and the one day allowable exceeding the federal standard in 2002). *The basin continued to have no violations for CO from 2003 to 2006.* During the past two decades, peak 8-hour CO levels in the South Coast Air Basin decreased from 28 ppm in 1985 to 6.4 ppm in 2006 (in south central Los Angeles County).[7]

On June 11, 2007, the U.S. EPA redesignated the South Coast Air Basin as an attainment area for CO along with the maintenance plan. Other basins in the region were redesignated as attainment areas earlier. Reductions from motor vehicle control programs are expected to continue the downward trend in ambient CO concentrations.

Water Resources

Total Water Use

Why is this important?

Water is essential to human life. It is one of the most precious resources in Southern California. With the continuing increase of population in the region, ensuring reliable water resources to meet demand and maintaining water quality are vital goals for all of Southern California. In addition, how water is used would also impact the health and sustainability of the regional ecosystem.

How are we doing?

For more than 100 years, Southern California has had to import water to support its ever increasing population. The region is an arid to semi-arid environment with low annual precipitation. *Currently, imported water accounts for about 70 to 75 percent of the regional water supply.* The remaining 25 to 30 percent comes from local surface and ground water and from reclaimed water sources.[8]

Imported water includes water from the Colorado River via the Colorado River Aqueduct, the State Water Project via the California Aqueduct, and the eastern Owens Valley/Mono Basin in the Sierra Nevada via the Los Angeles Aqueduct. *It is important to note that available water from all three imported sources may be reduced in the future as other users and uses place greater demands on these sources.* For example, environmental and water quality needs in the Delta and Owens River/Mono Basin systems affect import water supply quantity, quality and reliability. In addition, the Colorado River basin has experienced a five-year drought that is unprecedented in recorded history, while total water demand in its basin continues to rise because of population and economic growth. The Colorado River Water that could experience further sustained droughts is perhaps the most critical and uncertain element of the water resource planning in Southern California.

In addition, the region also needs to assess and plan for impacts of global climate change (as further discussed in the Energy Section), as well as the cost of replacing aging infrastructure. *Some of the most significant impacts from global climate change will be on water resources, impacts that are of special concern to the SCAG region where water scarcity and quality are already of great concern.*

Within the SCAG region, the Metropolitan Water District (MWD) is the largest urban water supplier. Its service area includes about 15.4 million residents in the region (Figure 86). In recent years, MWD has provided about half of the municipal, industrial and agricultural water used in its service area.



Figure 86

Population within Water District Service Area

	MWD	Non-MWD
Imperial	0.0%	100.0%
Los Angeles	91.6%	8.4%
Orange	100.0%	0.0%
Riverside	72.3%	27.7%
San Bernardino	40.9%	59.1%
Ventura	72.6%	27.4%
REGION	84.4%	15.6%

Source: Metropolitan Water District

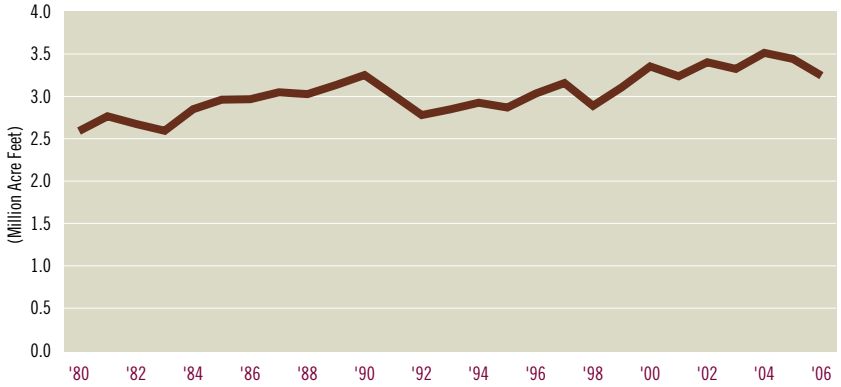


In 2006, total water consumption within the MWD service area in the SCAG region was about 3.24 million acre-feet, a 6 percent decrease from 2005. The 2006 level was almost the same as that in 1990 (a dry year), despite an increase of almost 3 million (23 percent) residents (Figure 87). Total water consumption did not experience significant increases for several years in the mid-1990s due to the recession, wet weather, conservation efforts, and lingering drought impacts. Of total consumption, only 6.8 percent was for agricultural purposes and the rest was for urban (municipal and industrial) uses.

Figure 87

Total Water Consumption*

(Metropolitan Water District Service Area)



**Within the SCAG region. Total water consumption includes municipal/industrial and agricultural uses.*
***One acre foot equals 325,851 gallons.*
Source: Metropolitan Water District

In recent years, the region has developed an array of local projects to complement imported water supplies. They include, for example, surface water storage, groundwater storage and conjunctive use, conservation, water recycling, brackish water desalination, water transfer and storage, and infrastructure enhancements. Within the MWD service area, water conservation programs are estimated to conserve about

700,000 acre-feet of water in 2006, almost triple the 1990 level at 250,000 acre-feet. New water supply targets for Southern California through 2025 include 1.1 million acre-feet for conservation.[9] In addition, water recycling, groundwater recovery and seawater desalination are integral and growing assets in the region's diverse resource portfolio and help bring greater water supply reliability to Southern California. For example, Orange County Water District's Groundwater Replenishment System, which takes highly treated sewer water that is currently released into the ocean and purifies it, is the largest water purification project of its kind.[10]

Per Capita Urban Water Use

Why is this important?

Water consumption per capita is important when looking at a city or county's growth projections in order to maintain a safe yield per person and sustain community well-being.

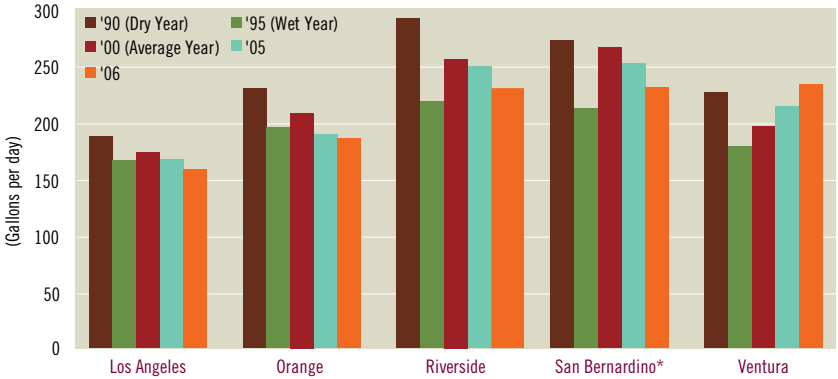
How are we doing?

Urban water use includes residential, commercial, industrial, fire fighting and other uses. Hence, per capita urban water use consists of more than the amount of water used directly by an individual. Since 1991, per capita urban water use has generally been below the pre-drought levels. While 1990 was a dry year, 1995 was a wet year and 2000 represented an average year. In 2006, per capita urban water use declined from the 2000 level in each county in the region except for Ventura County (Figure 88).

An important factor contributing to the overall decline in per capita urban water consumption is the development of various conservation programs and practices. These include retrofitting with water efficient technology for showerheads and toilets and changing landscaping practices toward drought-tolerant plants. In addition, implementation of new water rate structures has helped suppress growth in per capita water demand.

Figure 88

Per Capita Urban Water Consumption
(Metropolitan Water District Service Area)



*San Bernardino's portion includes only 41% of the County's total population, significantly less than other counties.
Source: Metropolitan Water District

In Southern California, much of the variation in per capita water use among counties can be attributed to climate differences. Within the region, the Inland Empire counties continued to maintain higher per capita urban water consumption rates than coastal counties except for Ventura. For example, in 2006, per capita urban water consumption per day in San Bernardino and Riverside counties was 231 and 232 gallons respectively in contrast to 186 gallons in Orange County and 159 gallons in Los Angeles County. This partly reflects higher landscape water use due to warmer and dryer climate conditions. In addition, a single family unit has higher per capita water use than a multi-family unit. The Inland Empire and Ventura County have higher share (65 percent and

64 percent respectively) of detached single-family residential units than Los Angeles County (49 percent) or Orange County (51 percent).

Water Quality

Why is this important?

Good water quality is important to the well-being of human health, aquatic and terrestrial species, and the economy. The water quality of freshwater streams is affected by human activities and land use practices (such as land clearing and urbanization). Runoff from streams and rainfall flows into the ocean and impacts coastal water quality.

How are we doing?

The SCAG region straddles five Water Quality Control Board (WQCB) regions in the state: Los Angeles, Colorado River Basin, Santa Ana, San Diego and Lahontan. The Los Angeles Region encompasses all the coastal watersheds of Los Angeles and Ventura counties, along with portions of Kern and Santa Barbara counties. The Colorado River Basin Region includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego counties. It covers California's most arid area. Despite its dry climate, the Region contains two water bodies of state and national significance: the Colorado River and the Salton Sea. The Santa Ana Region extends from the San Bernardino and San Gabriel mountains in the north and east to Newport Bay along the coast. The San Diego Region includes southern Orange County and stretches along 85 miles of scenic coastline from Laguna Beach to the Mexican Border and extends 50 miles inland to the crest of the coastal mountain range. Finally, the Lahontan Region includes portions of northern Los Angeles County and western San Bernardino County, and extends further north including the Sierra Nevada along the eastern border of California.

Urbanization is one of the important factors affecting water quality. Urban water runoff from roads and parking lots contain high level of contaminants which can flow directly into surface waters.[11] The pollutant loads in stormwater generally increase along with urbanization. Runoff and other problems are exacerbated by aging infrastructure. The general quality of groundwater in the region has been degraded as a result of land uses and water management practices. The coastal waters are impacted by, for example, wastewater discharges and non-point source runoff. Section 303(d) of the Clean Water Act requires the California State Water Resources Control Board to list impaired water bodies in the state and determine total maximum daily loads (TMDLs) of pollutants that are contributing excessively to these impaired waters.

Between 2002 and 2006, water quality improvements showed mixed results. While the Los Angeles and Lahontan WQCB regions saw significant improvements, water quality in the San Diego WQCB region deteriorated. The Colorado and Santa Ana WQCB regions generally maintained their water quality levels. The improvement in the Los Angeles WQCB region was due mostly to the reduction of impaired coastal shorelines as well as rivers/streams. San Diego WQCB region experienced an increase in impaired rivers/streams and bays and harbors. Impairedment of beneficial uses often occur during long period of time and can require years to correct. In recent years, watershed planning efforts have become a more prevalent means of protecting water resources.

Beach Closure

Why is this important?

When the ocean waters off a beach contain high concentrations of certain bacteria, they become unsafe for swimming and other recreational uses. In 1999, the California Department of Health began monitoring



all beaches which have more than 50,000 annual visitors and have outflows from storm drains, rivers, or creeks. Closures or advisories are issued for beaches that fail to meet the state's standards for various sources of bacterial pollution.

How are we doing?[12]

Between 2005 and 2006, the total number of beach closing/advisory days declined from 3,576 to 3,215 among beaches monitored in the region (Figure 89). However, they were greater than 2004 levels (2,860 days). The decrease of 10.1 percent of beach closing/advisory days in the region was less than that at the state level during the same period, from 5,496 to 4,644, or 16 percent.

In 2006, Los Angeles County experienced 2,072 beach closing/advisory days, following by Orange (975 beach closing/advisory days), San Diego (714 beach closing/advisory days), Santa Barbara (285 beach closing/ advisory days), and Ventura (168 beach closing/advisory days) counties. Polluted urban stormwater runoff continues to be the largest source of pollution and the predominant cause across the state.

Between 2005 and 2006, the number of beach closing/advisory days in Los Angeles County decreased slightly from 2,213 to 2,072, a 6 percent decrease following the 51 percent increase during the previous period. About 95 percent of total beach closing/advisory days in the county in 2006 were due to elevated bacterial levels from unknown sources of contamination, and 3 percent were due to known sewage spills.

Orange County experienced a 5 percent increase from 929 to 975 beach closing/advisory days between 2005 and 2006, after a 33 percent decrease during the previous period. Similar to conditions in Los Angeles County, 91 percent of total beach closing/advisory days in Orange County were due to elevated bacterial levels from unknown sources. Ventura County also experienced a significant drop of 61 percent from 434 to 168 beach closing/advisory days between 2005 and 2006, after a 4 percent reduction during the previous period.

Figure 89

Total Number of Beach Closing/Advisory Days

	'04	'05	'06
Los Angeles	1,469	2,213	2,072
Orange	939	929	975
Ventura	452	434	168
REGION	2,860	3,576	3,215
Rest of California	1,125	1,920	1,429
California	3,985	5,496	4,644

Source: Natural Resources Defense Council

Solid Waste

Why is this important?

Disposing of waste in landfills is not only costly but, if not treated properly, could have dire impacts on the ecosystem and human health. For example, decomposition of waste in landfills releases methane into the atmosphere, a significant contributor to global warming. Hence, a sustainable society should minimize the amount of waste sent to landfills by reducing, recycling or reusing the waste generated as much as possible.

How are we doing?

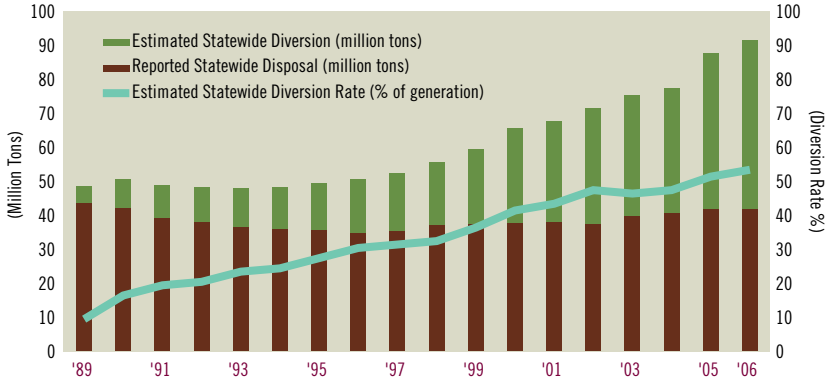
The 1989 California Integrated Waste Management Act set the goal of 50 percent diversion of each city and county's waste from landfill disposal by the year 2000. In 2006, only about 40 percent of the cities in the region met the 50 percent diversion goal. Diversion measures include waste prevented, waste re-used, waste recycled or waste composted.



Waste diversion programs such as curbside recycling pickups, green-waste collection, and municipal composting have steadily increased the diversion rate. *At the statewide level, the diversion rate – the share of amount diverted out of the total waste generated - increased from 10 percent in 1989 to 54 percent in 2006 (Figure 90).*[13] Hence among the 92 million tons of waste generated in California in 2006, over 50 million tons were diverted. Among the total waste generated, about 30 percent was organic matter, 22 percent was construction and demolition materials and 21 percent was paper.[14]

Figure 90

Estimated Statewide Waste Tonnages and Rates

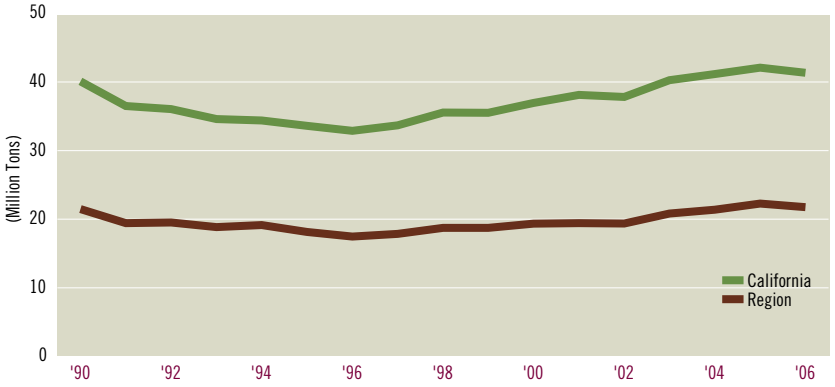


Source: California Integrated Waste Management Board

In 2006, the total amount of waste disposed to landfills in the region reached 21.8 million tons, a slight decrease of 0.5 million ton from 2005 (Figure 91). During the 1990s, waste sent to landfills in the region declined for several years, however, it has generally increased gradually since 1996. This is similar to the trend at the state level. Many landfills in the region are running out of capacity while environmental concerns make building new landfills or expanding existing landfills increasingly difficult.

Figure 91

Solid Waste Disposal at Landfills
(Million Tons)



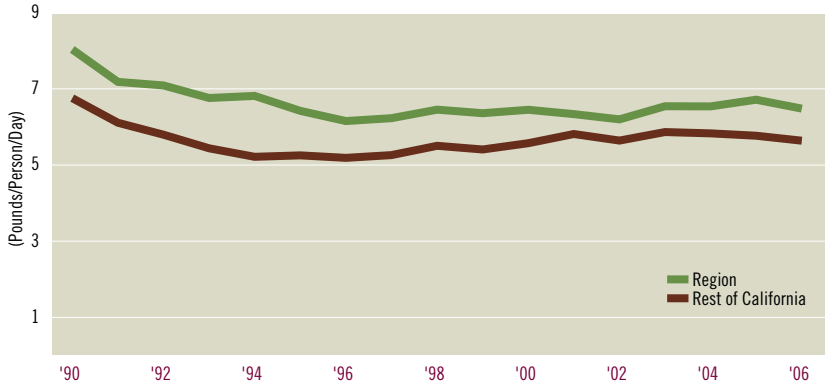
Source: California Integrated Waste Management Board



Since the passage of the Waste Management Act in 1989, the region began to make progress in reducing the amount sent to landfills on a per capita basis. In 1990, the region disposed about 8 pounds of solid waste per capita per day into the landfills, higher than that of the rest of the state of 6.8 pounds per capita per day. Various measures to implement the Act had reduced the per capita disposal rate in the region continuously to just over 6 pounds per day (or almost 25 percent) in 1996, the lowest level since 1990. Since 1996, per capita disposal rates fluctuated somewhat and began to increase after 2002 to about 6.5 pounds per day in 2006 (Figure 92).

Figure 92

Solid Waste Disposal in Landfills
(Pounds/Person/Day)



**Including residential and non-residential waste disposal*
Source: California Integrated Waste Management Board

Energy

Why is this important?

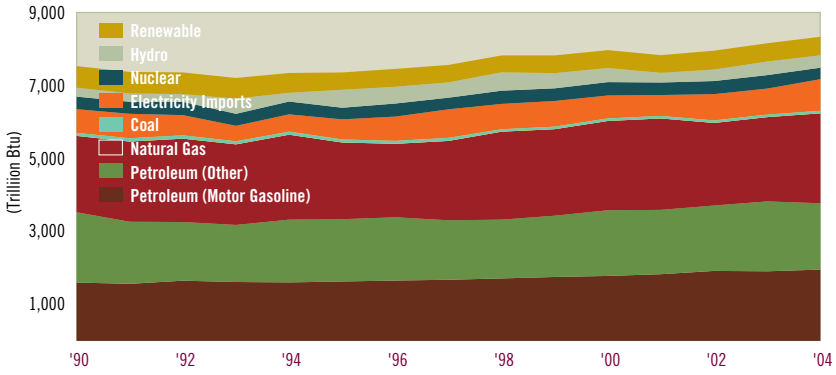
Energy is a critical input for production processes of the regional and national economy. In addition, it is essential for everyday life. Reliance on fossil fuels contributes significantly to regional air pollution and global climate change that would result in adverse impacts on many ecological systems, human health as well as the economy. Furthermore, strong dependence of foreign imports greatly reduces the reliability and security of this vital resource.

How are we doing?

Energy use in California is predominantly fossil fuel based (i.e. petroleum, natural gas and coal), accounting for about 86 percent of the total consumption (Figure 93). In addition, California obtains nearly two-thirds of its energy from outside its borders, including 63 percent of petroleum, 85 percent of natural gas and 22 percent of electricity uses (Figure 94).

Figure 93

California Energy Consumption Estimates by Source

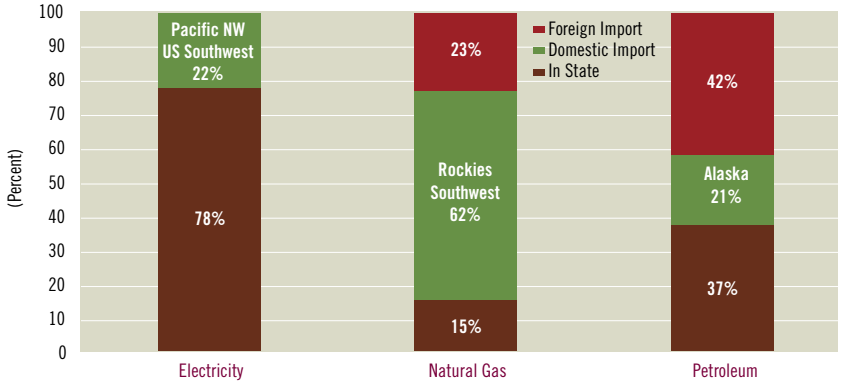


Source: Energy Information Administration, State Energy Data 2004

Based on the recent statewide inventory, petroleum accounted for about 45 percent of the total energy use, natural gas 30 percent and coal just below 1 percent.15 In addition, imported electricity (10 percent of the total energy use) was produced mainly by coal or natural gas. Other sources of energy include renewable (6.1 percent), nuclear (3.8 percent) and hydroelectric power (4.1 percent). As to the energy consumption by sectors in California, transportation sector is the largest user of 39 percent, followed by industrial sector of 24 percent. Commercial and residential sectors each used about 18.5 percent. For major energy sources such as petroleum and natural gas, the SCAG region accounts for about 45 percent of the total state use and is expected to have similar consumption patterns to that of the state in the shares of different energy sources.

Figure 94

California's Major Sources of Energy, 2006



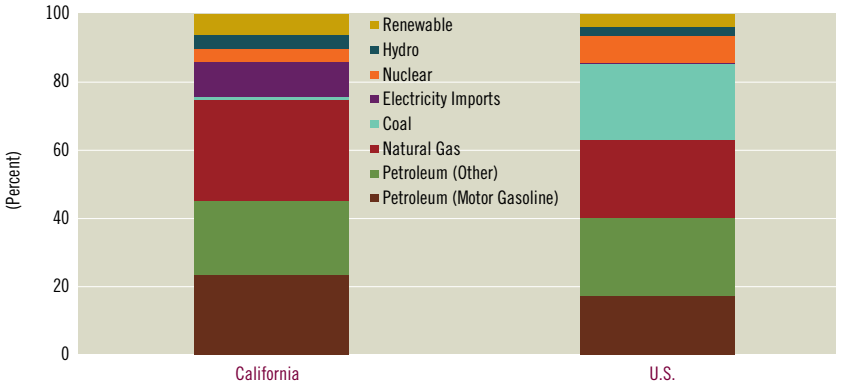
** Natural gas and petroleum data are for 2005*
Source: California Energy Commission

At the national level, 86 percent of the total energy consumption is fossil-fuel based, the same proportion as that in California. However, compared with California, the nation relies much more on coal (22

percent vs. 0.8 percent) and less on natural gas (23 percent vs. 30 percent) and petroleum (40 percent vs. 45 percent) than California (Figure 95). In addition, within the non-fossil fuels, the nation relies more on nuclear (8.2 percent) than California (3.8 percent). California surpassed the national average in the use of renewable energy (6.1 percent vs. 3.6 percent).

Figure 95

Energy Consumption by Source, 2004



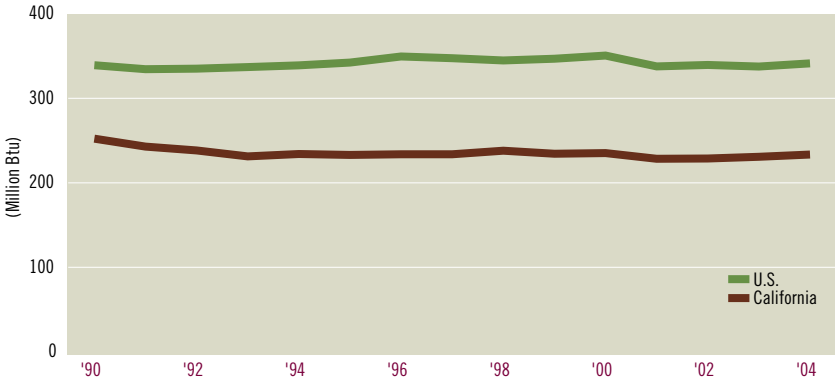
Source: Energy Information Administration

Energy use to support the national economy has become more efficient for the past few decades. For example, between 1970 and 2006, energy use per dollar of real Gross Domestic Product (GDP) was reduced by half.[16] The reductions were due to efficiency improvements and structural changes in the economy to become more service-oriented.

When compared to the U.S., California uses less energy on a per capita basis. *Since 1993, California has consistently been at least 30 percent below the national average in per capita energy consumption (Figure 96). Among all states in the nation, California ranked 3rd lowest in per capita energy consumption, following Rhode Island and New York.* Difference in climate and types of industry contributes to the lower energy consumption per capita in California as compared to the U.S. as a whole. Other factors include the higher energy efficiency appliance and building standards, and demand side management programs implemented in California. For example, energy-intensive manufacturing represents approximately 10 percent of the total economic output in California, compared to 22 percent for the U.S. In addition, when comparing within the same industry categories, California also uses less energy for a given level of output due to a more energy efficient production.

Figure 96

Per Capita Energy Consumption
(Million Btu)



Source: Energy Information Adminstration and Bureau of Economic Analysis

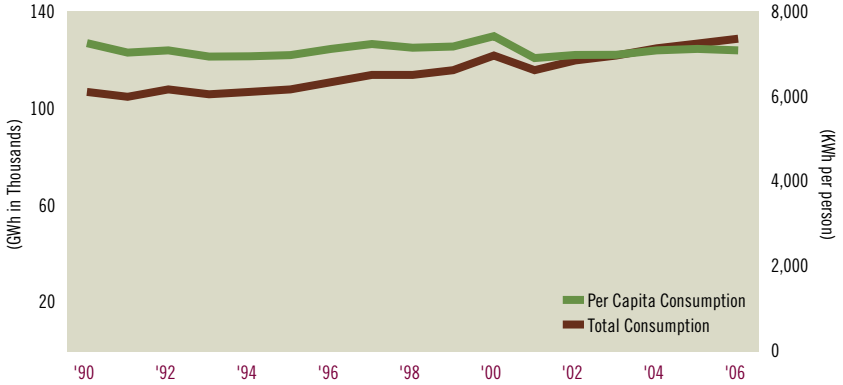
Electricity Consumption

In 2006, the SCAG region consumed approximately 129,000 gigawatt–hours (GWh) of electricity, or 7,095 kilowatt-hours (kWh) per person. In the region, electricity consumption increased 15 percent during the 1990s. Total consumption declined in 2001 after the electricity crisis but since then has been increasing about 1.3 percent per year, roughly

keeping pace with the population growth. Hence per capita electricity consumption in the region is projected to remain relatively constant over the next 10 years, at about 7,100 kWh per person, somewhat below the state average of 7,500 kWh per person (Figure 97).

Figure 97

Electricity Consumption



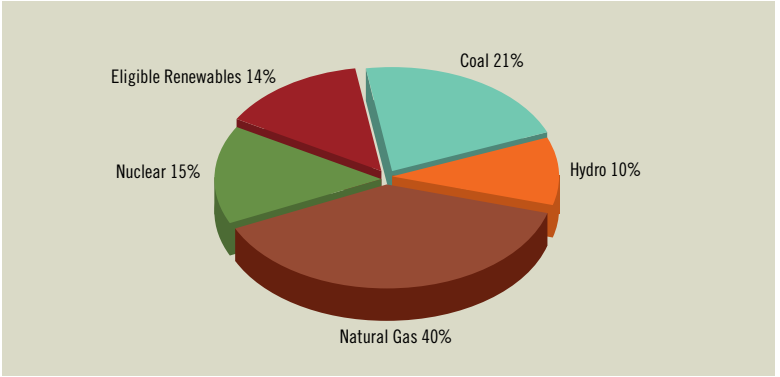
Source: California Energy Commission

In 2006, fossil fuels accounted for 61 percent of the total sources for electricity generation in Southern California, including natural gas (40 percent) and coal (21 percent), while renewable accounted for 14 percent (Figure 98). Both Southern California Edison and Los Angeles Department of Water and Power (LADWP) are required to reach 20 percent using renewable energy. Between 2005 and 2006, the share of natural gas increased by 6 percentage points while the share of nuclear power decreased by 5 percentage points.

In the region, commercial was the largest user (39 percent) of electricity followed by residential (31 percent) and industrial (19 percent).

Figure 98

Electricity Generation by Source, 2006



**Based on the combined mix of Southern California Edison and Los Angeles DWP*
Source: California Energy Commission, Southern California Edison, Los Angeles Department of Water and Power, July 2007

Natural Gas Consumption

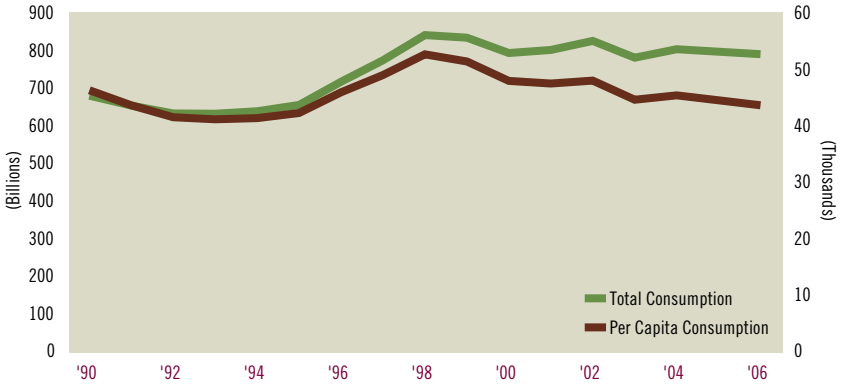
Californians consumed about 6 million cubic feet per day (MMcfd) of natural gas in 2006, half of which were used in electric generation. Only 15 percent of the total natural gas consumption was produced in California. The remaining was imported from the Southwest (38 percent) and Rockies (24 percent) in the U.S. and from Canada (23 percent).

For natural gas use, the SCAG region is served by the Southern California Gas Company. A small portion of the region is served by a municipal gas utility, Long Beach Energy (part of the City of Long Beach). In 2006, the SCAG region consumed about 791 billion cubic feet of the natural gas excluding electricity generation use. Since 2000, the total non-electric generation use of natural gas in the region has been fluctuating slightly around 800-billion cubic feet level and is projected to remain relatively constant for the next ten years. As to the per capita consumption of natural gas in the region, it has been on a gradually de-

clining path since the peak of 53,000 cubic feet in 1998 reaching about 44,000 cubic feet in 2006 (Figure 99).

Figure 99

Natural Gas Consumption*
(Cubic Feet)



** Excluding the use for electricity generation*
Source: California Energy Commission



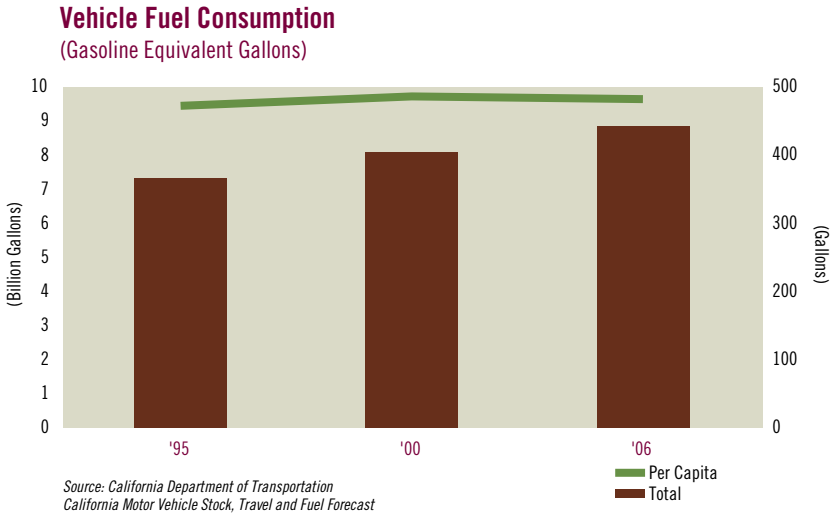


Vehicle Fuel Consumption

In 2006, more than 40 percent of the crude oil to California refineries came from foreign imports, exceeding for the second consecutive year the production from California (37 percent). The share of foreign imports has been increasing rapidly from below 10 percent in 1995 to over 40 percent in 2006. During the same period, production from California decreased from 50 percent to below 40 percent while imports from Alaska also decreased from 41 percent to 20 percent. Nationally, the U.S. became a net oil importer in 1970 and oil imports currently account for about 65 percent of the total consumption. In 2005, imports of fossil fuels was about $250 billion, responsible for 35 percent of the national trade deficit ($716 billion).[17]

In 2006, the region consumed about 8.9 billion gallons of vehicle fuels, an increase of about 22 percent from 1995 (Figure 100). However, per capita vehicle fuel consumption, though increasing slightly between 1995 and 2000 from 472 to 485 (gasoline equivalent) gallons, declined slightly to 481 (gasoline equivalent) gallons in 2006.

Figure 100



Impacts on Global Warming

The combustion of fossil fuels (petroleum, natural gas and coal) to release their energy creates carbon dioxide emissions (CO2), the most significant greenhouse gas (GHG) that affects global climate change and specifically global warming. This is in addition to fossil fuels' impacts on regional air quality including $PM_{2.5}$ and ozone pollution as described in the Air Quality Section. For example, burning of fossil fuels for mobile sources in the region is responsible for more than 85 percent of total NO_X emissions, a precursor of ozone pollution.

Climate change is the shift in the "average weather" that a given region experiences. Currently, the Earth is warming faster than at any time in the previous 1,000 years and eleven of the last 12 years (1995-2006) with the exception of 1995 ranked among the 12 warmest years on record since 1850. The global mean surface temperature has increased by 1.3^0F for the past century. Human activities are altering the chemical composition of the Earth's atmosphere through the release and build up of global greenhouse gas (GHG) emissions, predominantly (77 percent) CO_2, that absorb the heat. Global atmospheric GHG concentrations have increased markedly since 1750 and now far exceed pre-industrial values. Between 1970 and 2004, the GHG_{18} emissions grew 70 percent from 28.7 to 49 Gigatonnes of CO_2 equivalent.

Global warming poses a serious threat to the economic well-being, public health and natural environment in Southern California and beyond. The potential adverse impacts of global warming include, among others, a reduction in the quantity and quality of water supply, a rise in sea levels, damage to marine and other ecosystems, and an increase in the incidences of infectious diseases.

In 1990, California generated 426 million metric tons of CO_2 equivalent GHG emissions that increased to reach 473 million metric tons in 2000 and 493 million metric tons in 2004. It is projected to further increase to 600 million metric tons by 2020 (Figure 101). This California GHG emissions inventory excludes all international fuel uses, reporting them separately. Including these international emissions would

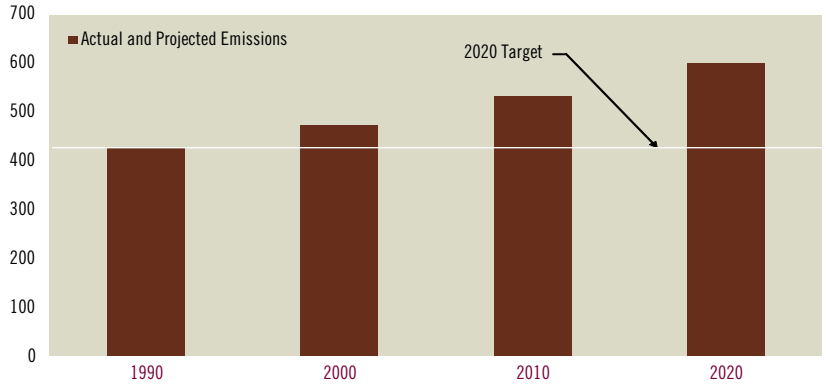


increase total emissions by 27 to 40 million metric tons of carbon dioxide–equivalent GHG emissions, depending on the year. CO_2 emissions generally track closely with trends in energy use, adjusting for changes in fuel mix and the relative carbon intensity of the various fuels.

When compared to the rest of the nation, as noted before, California has a relatively more energy-efficient economy. In addition, California economy's energy consumption is also less carbon-intense. For example, California has relied much less on coal and more on natural gas than the rest of the nation. Coal is generally more harmful to the environment than natural gas due to the mercury, greater criteria pollutants (sulfur dioxides, etc) and greenhouse gases emitted. California's choices have helped reduce carbon dioxide emissions. *Hence, in 2004, per capita GHG emissions in California (13.7 metric tons) were significantly lower than in the rest of the nation (24.5 metric tons) (Figure 102). Among all states in the nation, California ranked 3rd lowest in per capita CO_2 emissions, following Vermont and New York.*

Figure 101

California Climate Change Emission Baseline
Million Metric Tons (CO_2 Equivalent)



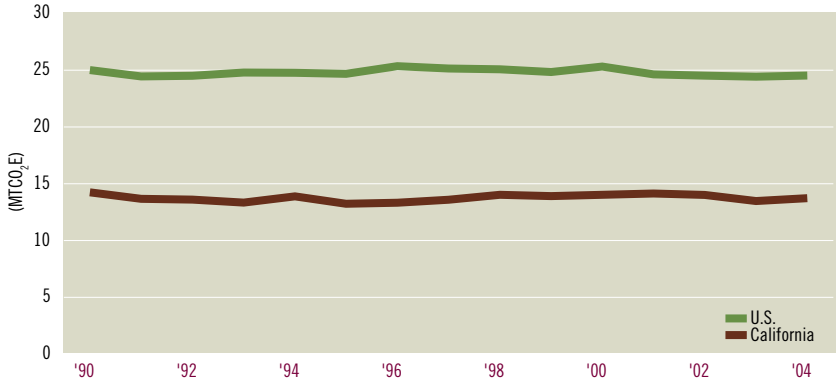
Source: California Climate Action Team Report, March 2006

California is the most populous state with the largest state economy in the nation. Despite of its achievement in energy efficiency and less carbon intensive energy use, California is second only to Texas in the nation in term of total CO_2 emissions, and is the 16th largest source of climate change emissions in the world, exceeding most nations. The SCAG region, with close to half of the state's population and economic activities, is a major contributor to the global warming problem and should also be a major contributor to its solution.

In 2006, state legislation Assembly Bill No. 32 (AB 32), the California Global Warming Solutions Act, passed into law requiring that by 2020 the statewide greenhouse gas emissions be reduced to the 1990 level. This would represent a total reduction of 174 million metric tons of (CO_2 equivalent) emissions.

Figure 102

Per Capita Greenhouse Gas Emissions
(Metric Tons of Carbon Dioxide Equivalents, $MTCO_2E$)



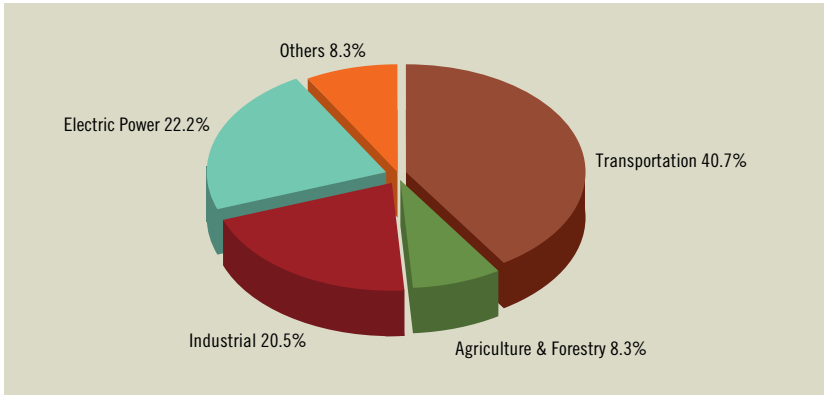
Source: California Energy Commission, U.S. Environmental Protection Agency, and Bureau of Economic Analysis

Among the climate change pollutants resulting from California's economic activities, 81 percent are CO_2 emissions from fossil fuel combustion. In addition, non-fossil fuel sources produced 2.8 percent of

the total pollutants mainly due to cement production. Methane (CH_4) accounted for 5.7 percent of the total pollutants generated primarily from landfills, enteric fermentation and manure management. Nitrous Oxide (N_2O) accounted for another 6.8 percent largely due to mobile source combustion and agricultural soil management. Finally, other gases with high global warming potentials (GWP) accounted for the remaining 2.9 percent. These high GWP gases include use of substitutions of other gases (hydrofluorocarbons or HFCs) for ozone-depleting gases, electricity transmission and distribution (Sulfur Hexafluoride or SF_6), and semiconductor manufacturing (perfluorocarbons or PFCs and SF_6). It should be noted that the percentages of climate change pollutants associated with each gas were generally stable over the 1990 to 2004 period. However, high GWP gas percentages are rising somewhat.

Figure 103

Sources of California's Greenhouse Gas Emissions, 2004



** Includes electricity imports and excludes international bunker fuels*
Source: California Energy Commission

Among the different sectors in California, transportation is the largest source (40.7 percent) of climate change emissions followed by electricity production (22.2 percent) from both in-state and out-of-state sources (Figure 103). Electricity imported to California and the SCAG region from the Southwest has a significant percentage that is coal-based generation which has higher carbon intensity than in-state generation. The industrial sector was the third largest source at 20.5 percent.[19] The SCAG region is likely to have a similar pattern as the state.

Figure 104

AB 32 Implementation - Air Resources Board

2007-01-01	ARB maintains statewide inventory
2007-06-30	List of discrete early actions
2008-01-01	Regulation for mandatory reporting of Emissions Adopt 1990 baseline/2020 target
2009-01-01	Scoping plan of reduction strategies
2010-01-01	Regulations to implement early actions
2011-01-01	Regulations to implement scoping plan

Source: California Air Resources Board

The overall schedule to implement AB 32 is shown in Figure 104. On June 21, 2007, the California ARB approved three discrete early actions measures which can be adopted as regulations and made enforceable no later than January 1, 2010. These discrete early action measures would reduce at least 13 million metric tons (CO_2 equivalent) emissions, about 7 percent of the total reductions needed by the 2020.

The discrete early action measures include the following:

1. **The Governor's Low Carbon Fuel Standard,**
2. **Increase methane capture from existing landfill, and,**
3. **Restrict the use of high global warming potential refrigerant for motor vehicle air conditioning.**

The Low Carbon Fuel Standard goal is to reduce the carbon intensity of California's passenger vehicle fuels by at least ten percent by 2020, cutting CO_2 equivalent greenhouse gas emissions by 10 to 20 million metric tons. Potential low carbon fuels include biodiesel, hydrogen, electricity, compressed natural gas, liquefied petroleum gas and biofuels. Transportation accounts for over 40 percent of the greenhouse gas emissions in California. Therefore, reductions of emissions from this source are vital. This is the single biggest stand-alone measure after the motor vehicle greenhouse gas standards the ARB has already adopted.

Methane generated by landfills, unless captured first by a gas recovery system, is emitted to the atmosphere and becomes a potent climate change emission. Currently, federal regulations require emission controls for larger landfills. However, there are no consistent statewide standards for smaller and other uncontrolled landfills. Approximately 40 landfills are identified by the Integrated Waste Management Board as not having emissions controls. The requirement for installing emission control systems at smaller and uncontrolled landfills, and the improvement of collection efficiencies at controlled landfills would result in total reductions on the order of two to four million metric tons by 2020.

Hydrofluorocarbons or HFCs are a class of compound with high global warming potential of 1,300 relative to CO_2. Major applications of HFCs include refrigeration and air conditioning. Complete ban of HFC-134a due to its climate change impacts was instituted in Europe recently.

In October 2007, ARB approved additional discrete early action measures to reduce greenhouse gases from the trucking industry, greener ports, cement and smeiconductor industries and consumer products. The new measures are projected to reduce about 3 million metric tons (CO_2 equivalent) of annual greenhouse emissions.

In addition to the discrete early action measures mentioned above, ARB also approved 35 additional emission reduction measures to reduce another 26 million metric tons (CO_2 equivalent) emissions by 2020. This group includes strategies such as cooler automobile paints, and forestry protocol that could be developed relatively quickly.

Reducing diesel PM as part of the State Implementation Plan (SIP) will also help meet the climate protection goals. Notably, the implementation of the one billion dollar bond to reduce goods movement-related emission is another key part of the diesel clean up strategy. The SIP, along with the AB 1493 vehicle climate change standards, will contribute additional reductions of 30 $MMTCO_2$.

Finally, the ARB is also in the process of developing a comprehensive Scoping Plan due in late 2008, which will outline a multifaceted approach to meet the 2020 reduction target defined by AB 32.

Air Quality and Health in the Greater Los Angeles Area: A Region in Crisis

Ed Avol

We are home to one of the world's most diverse populations, a veritable melting pot of cultures. We live in an area where our weather pattern is often described as "summer or not summer", where lifestyles of excess and poverty can be found within blocks of each other, and where winter is something "those folks back east" worry about. Our population and economy continue to grow in a region where almost half of the entire country's imports pass through our ports and over our roads and rail, where "freeways" and "rush hour" are increasingly oxymorons, and where – with a lot of hard work and determination – it will still take at least another decade to achieve federal air quality standards originally established almost 40 years ago to protect public health.

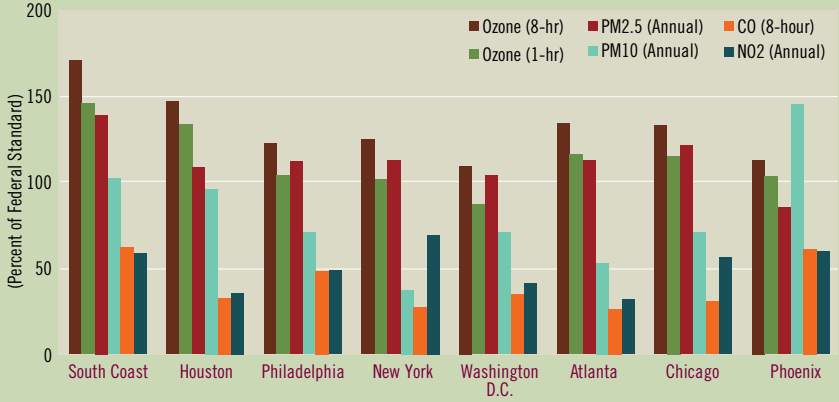
This year, local governments in the region (through the Southern California Association of Governments [SCAG]) passed a resolution asking that a state and federal emergency be declared to address the region's Air Quality/Health crisis[1]. Was this action supported by the available evidence? If so, what can be done, and what are we doing about it? With the push for economic growth, increased infrastructural development, and expanded goods movement activities in Southern California, where does public health fit into the discussion?

Understanding the Challenge

Southern California has been a perennial competitor for the dubious distinction of "poorest air quality in the nation". Ambient (outdoor) ozone and particulate levels have historically been among the highest in the country and continue to violate established National Ambient Air Quality Standards[2] (NAAQS) (See Figures 1 and 2). In the face of continued population growth, sprawling urbanization, increasing annual vehicle miles traveled, and expanding business activities, the regional air pollution regulatory control agencies (the State of California Air Resources Board [CARB] and the South Coast Air Quality Management District [SCAQMD]) have worked hard to develop emissions reduction strategies to reduce outdoor levels of airborne contaminants. Downward trends in annual outdoor concentrations of

Figure 1

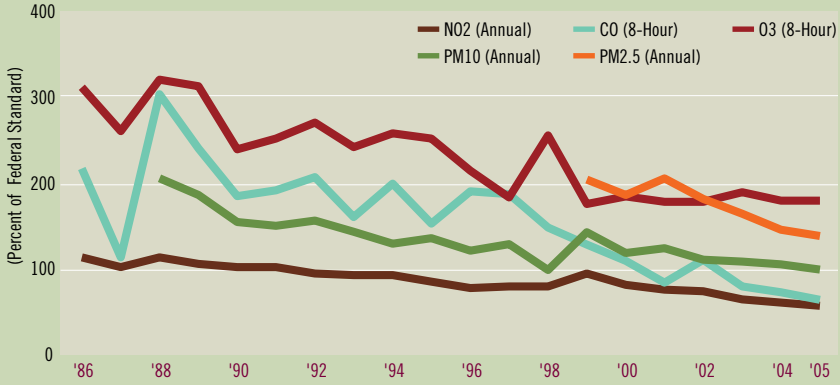
Maximum Pollutant Concentrations in the South Coast Air Basin Compared to Other U.S. Metro Areas, 2005



Source: South Coast Air Quality Management District

Figure 2

Maximum Pollutant Concentrations in the South Coast Air Basin



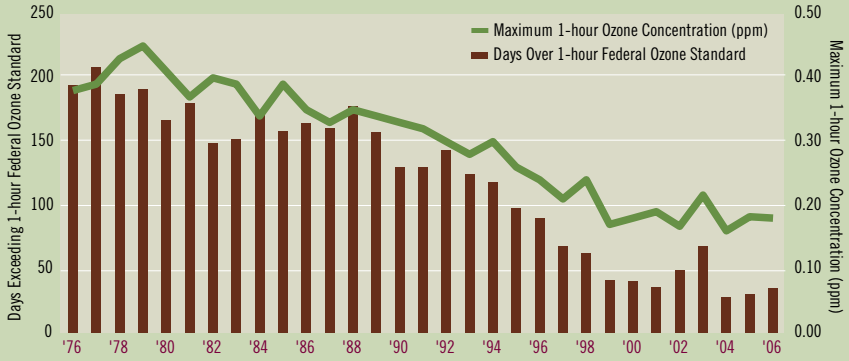
Source: South Coast Air Quality Management District and Air Resources Board, The California Almanac of Emissions and Air Quality - 2007 Edition

ozone (that clear photochemical gas that made LA smog a catchphrase) and particulate matter (microscopic pieces of dirt floating in the air each day) seem generally encouraging (see Figures 3 and 4). Recently, the steady annual improvement in air quality seems to have slowed, possibly due in part to decreasing effectiveness of control strategies, changes in regional meteorology, or increasing environmental pressures from a burgeoning population.

But even as we inch towards achieving the federal air standards developed to protect public health, the proverbial goal lines are moving. Recent reviews by the CARB and the US Environmental Protection Agency (EPA) have resulted in a tightening of both state and federal standards for oxides of nitrogen in California[3] and for ozone and particulate matter in California and the US[4-5, 6-7]. EPA is currently reviewing the federal oxides of nitrogen (NOx) standard, and the EPA Administrator is considering lowering the ozone standard, following a strong recommendation to do so from the EPA Clean Air Science Advisory Committee[8]. Under existing standards, compliance

Figure 3

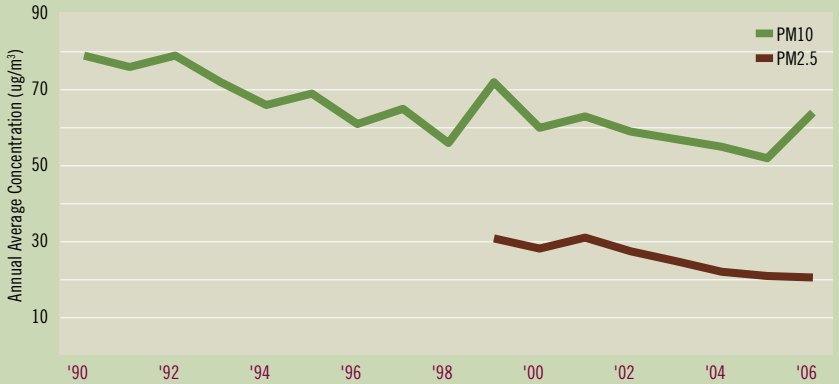
Ozone Trends in the South Coast Air Basin



Source: South Coast Air Quality Management District

Figure 4

PM_{10} and $PM_{2.5}$ Trends in the South Coast Air Basin



Source: South Coast Air Quality Management District

dates in the Southern California region ("compliance" being defined as having air to breathe in this Basin that meets the federal standards for acceptable air quality) are presently 2014 for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) and 2024 for ozone[9]. These far-off dates are both troubling and discouraging, and seem to represent a resigned acceptance of another decade or more of continued intentional exposure for millions of residents to unhealthy air.

So what does the current health data show? Is there truly a health crisis?

What the Health Data Show

Air quality standards are based on published scientific data relevant to the contaminant under review. Thousands of published articles have documented the health effects of the nationally-recognized "criteria" pollutants (ozone, particulate matter (PM), NOx, sulfur oxides (SOx), carbon monoxide, and lead). It is beyond the scope of this essay

to quantify the known information about the criteria pollutants. However, a brief summary of relevant recent health findings will demonstrate the current level of understanding regarding continued exposure to outdoor pollution.

Morbidity

In recent years, a growing body of research has become available relating both lung function level and growth rate to long-term air pollution exposure. Decreased lung growth rates, decreased lung function performance (the measurable ability to move air through the airways), and increased respiratory symptoms in children growing up in Southern California communities with higher levels of NOx and PM have been reported[10-13]. Similar findings have been observed in other populations of children exposed to vehicle combustion exhaust (which contains both gases and particulates)[14,15]. For children growing up in Southern California communities impacted by ambient ozone, studies have reported increased asthma[16] and respiratory illnesses leading to more school absences, lost learning time, and considerable economic burden[17,18]. The cumulative impact of these respiratory effects can be life-long degradation of health, since low lung function and symptoms are predictors of later-life respiratory disease and mortality[19-22].

Additional health investigations have suggested that proximity to busy roadways and traffic (a key source of PM in Southern California) plays an important role in children's respiratory health development. Decreased lung function and increased risk for asthma are associated with living near busy roads[23,24]. Busy roads and traffic have also been associated with increased risks for low birth weights, pre-term births, and even infant death[25-27].

The recent interest in the effects of particulate exposure on human health has resulted in a number of studies linking long-term PM exposures to several cardiovascular (heart-related) endpoints[28-30]. Mechanistically, studies have demonstrated how ultra-fine particles (particles smaller than 100 nanometers, or 1/600th of the diameter of a human hair) emitted from incomplete combustion of engine fuels and lubricating oils can bypass the body's defensive mechanisms, gain entry to cells and tissues, and alter or disrupt normal cellular function[31-33].

Mortality

Hundreds of research studies have addressed the association between ambient air pollution and human mortality[34]. Deaths in California[35-37],



the United States[38-41], and across the world[42,43] have been linked to air pollution exposure. CARB estimates that over 5400 premature deaths, 2400 hospitalizations, and almost a million lost work days are attributable each year to particulate pollution in the South Coast Air Basin (our regional area)[44]. Concerns about the possible confounding effects of specific modeling approaches, temperature, or other pollutants have led to a number of sensitivity analyses[45-47]. Although the precise magnitude of the risk or identification of the specific particulate constituent responsible may remain open questions, there is a growing consensus that air pollution is making us sick and killing us.

But as the data moves us closer to a clearer understanding of air pollution exposure and its adverse health effects, are there counter-balancing societal pressures that explain, account for, or potentially justify these increased risks?

Urban Pressures Affecting the Air Quality/Health Connection

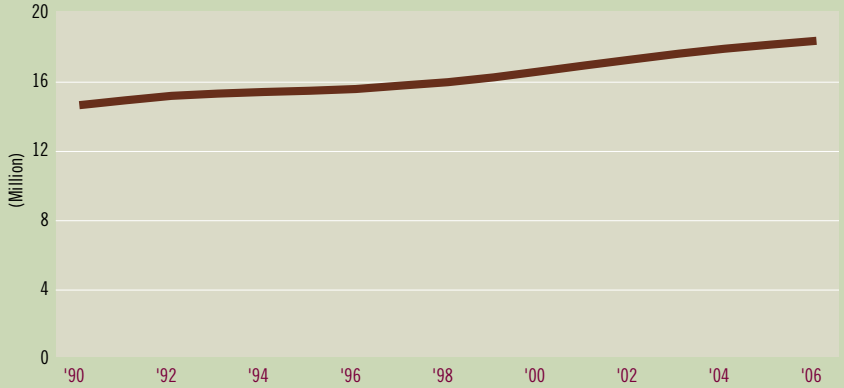
Many of us were not born in Southern California; we migrated here in search of opportunity, improved living conditions, and better lives. Southern California has its own connotation of lifestyle and perspective, and the allure of all that is available here has attracted millions who visit, vacation, or live, work, and raise their families here.

Steady increases in regional population have fueled dramatic regional changes, transitioning former agricultural areas into suburban communities, and converting dairy, grazing, and open land into large-footprint warehouses for redistribution of world imports (Figure 5). Population increases have also led to the need for more roads, more electrical power, more potable water, and more general services. Ultimately, this growth requires improved urban planning. As our communities have grown in number and size, we have become more aware that the available land and resources are not inexhaustible; we need to make better informed choices about how we use the increasingly limited resources we have.

At this intersection of population growth and land use, there are also interactions with public health, the economy, business expansion, and priorities. As our communities and businesses expand, as our freeways and roadways more effectively connect us from one point to another, we increasingly have to make choices about how to use a given parcel of land or location. Where do we build the new schools needed to educate

Figure 5

Population in the SCAG Region



** SCAG Region includes Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties*
Source: California Department of Finance

the next generation? What about recreational areas to encourage physical exercise and mental health? Where do we house current and newly-arriving residents? How do we balance the economic needs of a society juggling manufacturing, service, and agricultural components with "growing green" and maintaining a "healthy lifestyle"?

Regional Problems Require Regional Solutions

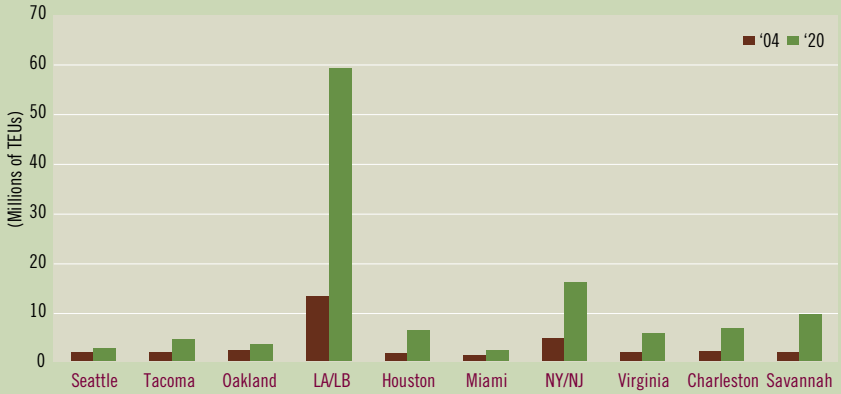
As a state, California has embraced and encouraged an expanded Goods Movement effort to accommodate international trade. The economic implications of such decisions are substantial, including a growing service sector economy, more jobs, and potentially lucrative funding opportunities. To achieve this Goods Movement vision, we are wrestling with the need for improved infrastructure – more cargo transfer terminals, more material re-distribution centers, more light and heavy duty vehicle-traveled freeways, more frequent and expanded rail operations, and more trucks. Each of these infrastructural expansions leads to more air pollution, unless we make some key critical choices very soon.

Local impacts are visual, visceral, and immediate. The communities of San Pedro, Wilmington, and Long Beach struggle with terminal expansion, increased hours of port operation, more trucks on the streets, more trains (and rail crossing delays), more noise and aesthetics issues, and more health concerns. The ports are wrestling with what they perceive as their mandate ("accommodate growth") and what they accept as their civil obligation (doing their "fair share" to clean up the air). But air emissions, like the millions of cargo boxes passing through the ports, don't stop at the port property's edge; they continue to move across the region. Similarly, the impacts of port operations reverberate across the region to downstream re-distribution centers, to so-called inland ports, and to communities east, north, and south of the port complex.

The decisions we make not only affect us here, but also affect the country at large, because we are the conduit for almost half of the country's imported cargo (see Figures 6 and 7). Our ports will almost surely continue to compete for larger portions of the national and

Figure 6

Volume of Trade to Major U.S. Ports



Source: U.S. Department of Transportation

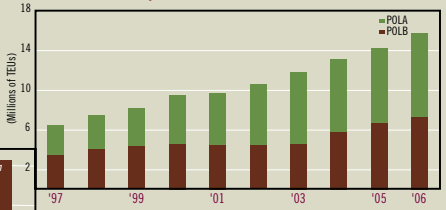
Figure 7

Recent and Projected Port Growth within the South Coast Air Basin Area



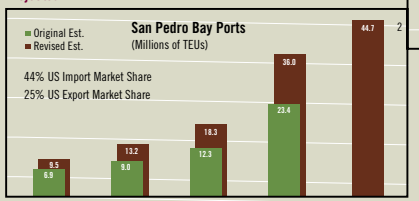
Container throughput is expected to triple in the next 15 to 20 years…

Actual San Pedro Bay TEU Growth



>100% since 1998…

Projected



Source: POLA, POLB and ACTA

international cargo transport pie. So while we grapple locally with the immediate impacts of increased infrastructural demands, and as the Goods Movement ramps up through our region, we need to be mindful that the entire country is betting that we will deliver.

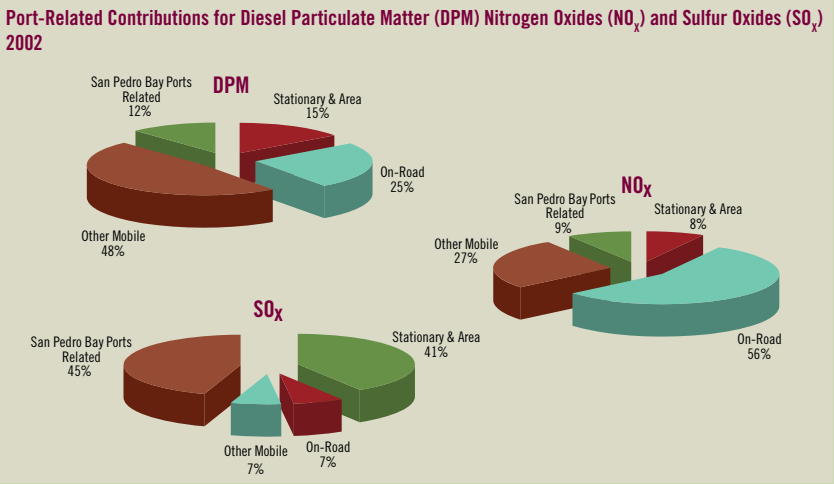
So what must we do to preserve and protect the health of our communities, yet respect our national obligations and role in providing international goods to the nation? Must we sacrifice local health to ensure economic vitality for the country?

The answer should be a resounding NO. We must push ahead on aggressive emission reduction strategies and emphasize at every turn that the public's health must be a part of the discussion. There must be an acknowledgement that human health concerns are paramount, that we cannot accept the ways of the past to be the methods of the future.

Some encouraging signs suggest an awakening may be underway. The ports of Los Angeles and Long Beach have entered into an historic agreement, to work together on a far-reaching and evolving Clean Air Action Plan (CAAP)[48]. The plan includes dozens of emission control measures, developed with the active participation of ports' staff and the regulatory air pollution control agencies (the local SCAQMD, the State's CARB, and the USEPA) and feedback from the community. An annual review of CAAP reduction strategies – both those that are working and not – and a continued ratcheting down of emissions are critical elements of the plan. Lease negotiations and port-wide tariffs to enforce emission reduction strategies will provide additional leverage for timely emissions reduction.

But the CAAP in its current form – or the CAAP, in any form – will not solve our regional air quality problems, even though port operations account for a substantial portion of daily regional pollution (Figure 8).

Figure 8



Mobile source pollution is our region's major air quality problem, and mobile sources are regulated by the State and Federal (not local or regional) governments. Inter-state or international transport (of goods, of people, and of pollution) fall under the jurisdiction of the federal government, or under multi-national control. So, state and federal agencies must do more, since their regulatory reach covers the vast majority of the pollution sources involved. Locally, we must continue to lobby for aggressive emission reduction strategies to accelerate the pace of cleanup.

What can we do locally to help? We begin in the ports of Long Beach and Los Angeles, collectively the largest source of air pollution in Southern California. In terms of mass emissions, ocean-going vessels contribute over half of the PM emissions in the port, 90% of the SOx (which is involved in atmospheric chemical reactions leading to downwind formation of PM) and over one-third of the NOx (which is

also important downwind, due to its involvement in chemical reactions leading to increased ozone and PM). Ships burn large amounts of relatively dirty, internationally purchased fuel, both in transit and in port. Regulatory control of ship emissions has been difficult, due to the international nature of ship operations and the cautious pace of activity (or inactivity) of port pollution control at the federal level.

Aggressive strategies to reduce the impurities in and amount of the fuels being consumed need to be pursued. Since January 2007, all ships visiting California ports are required to burn low-sulfur fuels in their auxiliary engines. The CAAP calls for the use of still-lower-sulfur fuels in the next several years. However, more could be done in a shorter period of time, by enforcing the use of 0.1% sulfur fuel in ship engines by 2010 (currently required by CARB by 2010 for ships' auxiliary engines only). Recently, a large terminal operator in the Los Angeles Port (Maersk) unilaterally changed to operating their ships on 0.2% fuel in the Los Angeles area, while others were still using fuel ten times dirtier and debating whether moves to cleaner fuel were feasible or safe. Progressive actions such as Maersk's needs to become the standard, rather than the rare example, for corporate operations to be welcomed in our region.

Electrification of port and rail operations and dramatically increased use of other clean-energy operations, rather than continued planned reliance on diesel-based engines and operations, needs to be expedited. Aggressive replacement of older, dirtier vehicles (from industrial trucks to commercial off-road bulldozers and yard equipment, to cars, buses, trains, and planes) needs to be emphasized. Getting older dirtier vehicles out of routine operations should be a high priority.

We need to move forward on alternative transportation modes for goods and people, to achieve both energy and emissions savings. New technologies and modes of transport must be evaluated and piloted. Existing mass transit operations need to be optimized, expanded, and improved. Fleet rules for cars and trucks need to updated and advanced to provide ever-cleaner options and access. The "hydrogen superhighway" or magnetic levitation may not be in our immediate future, but plug-in hybrids, liquefied natural gas (LNG) vehicles, enforcement of the best available engine control standards, and C-O-N-S-E-R-V-A-T-I-O-N are available now or in the very near future, and should be emphasized. Political inaction and inertia can no longer be tolerated.

Regional and state agencies have identified a number of possible emissions reduction measures and approaches. Their approaches are often promising, but the timing for enforcement and application has





often been viewed as "chaotically quick" by industry and "agonizingly slow" by the public. We need to move beyond the plodding sense of transitional change often ingrained in institutional operations and remember that pollution exposures are ongoing as we move ever so slowly along. Where health is an issue, we need to accelerate our actions.

Local government could and should take action to address air quality health impacts. General Plans could minimize land uses that increase air pollution-related health impacts from exposure to toxic air contaminants and particulates. Ever-enlightened approaches to land use and urban planning could be applied, because how we build our cities and infrastructure define how we will expend our resources in transit, operation, and production of services. Local governments need to plan for closer linkages in infrastructure - including on-dock rail for cargo transport, neighborhood schools for home-to-school commuting, shopping and business proximity to residential areas, and improved telecommuting and video-teleconferencing for workers. Such planning will require more regional perspectives, which could be an important contribution of regional organizations such as SCAG (who are already involved in numerous demonstration projects).

But planners and plans will not be successful without public endorsement and support. We need to develop more effective public outreach about the goals, methods, sacrifices, and costs involved in pollution reduction. These efforts should involve multi-media campaigns to publicize the actions underway, the need for those actions, and the progress being made as a result of those actions. All avenues should be explored, from television and radio public service announcements to on-screen movie-theatre ads, to internet notices, to fact sheets circulated at parks, schools, doctors' offices, and social organizations, to newspaper and magazine/journal articles. If we don't provide the public with clear and persuasive evidence for proposed changes or the benefits of choosing them, proposed changes will neither be publicly supported nor politically made.

Parting Thoughts

Southern California is a showcase for many positive attributes…and for some not-so-positive ones, as well. Regional air pollution, and the actions we take to respond to it, represents a singular opportunity for demonstrating what can be done if we commit our considerable resources and will to the task.

In the face of steady population increases and ever-expanding residential growth, the slow but steady improvement in air quality in Southern California is testimony to regulatory agency determination, focus, and accomplishment. Recent health research, however, provides evidence for concern about long-term health effects of exposure to air

pollutants, including respiratory symptoms, low lung function, low birth weight, cardiovascular disease progression, and death. The exposures and resulting health effects are occurring now, from the air that we all breathe, in the communities we all live in.

Current federal air quality standards require compliance in 7 years for $PM_{2.5}$ and 17 years for ozone. Waiting another 7 (or 17) years for this region to achieve air quality considered protective of public health effectively means the respiratory health of the current generation of children is being written off. That is a tragedy and should be justification enough for an emergency wake-up call, to apply all available technologies to clean up our air as quickly as possible.

If cleaning up the air we all breathe is more quickly achieved by declaring an emergency air quality/health crisis, then that decla-ration is justified, because the crisis exists now. We need to face these issues head-on, read the "handwriting on the wall" regarding the public health impacts of continued emissions, and mount an overwhelming and immediate effort to clean up our air. We do this for ourselves, for our children, and for our regional future...and we can no longer delay.

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Figures:

1. Maximum Pollutant Concentrations in the South Coast Air Basin Compared to Other U.S. Metro Areas, 2005 (courtesy of South Coast Air Quality Management District).
2. Maximum Pollutant Concentrations in the South Coast Air Basin (courtesy of the South Coast Air Quality Management District).
3. Ozone Trends in the South Coast Air Basin (courtesy of South Coast Air Quality Management District).
4. PM_{10} and $PM_{2.5}$ Trends in the South Coast Air Basin (courtesy of South Coast Air Quality Management District).
5. Population in the SCAG Region.
6. Volume of Trade to Major U.S. Ports (from U.S. Dept of Transportation data).
7. Recent and Projected Port Growth within the South Coast Air Basin Area (ports of Los Angeles and Long Beach).
8. Port-related Contributions for Diesel Particulate Matter (DPM), Nitrogen Oxides (NO_X), and Sulfur Oxides (SO_X) (courtesy of Port of Los Angeles).



Between 2003 and 2006, the region achieved steady progress in the math test scores for 7th grade.

Education

Why is this important?

Student performance is measured through three indicators: 1) test scores for seventh grade, 2) high school dropout rates, and 3) college readiness measured by the percentage of high school graduates completing courses required for the University of California (UC) or California State University (CSU) entrance. High school dropouts are severely disadvantaged in competing for quality jobs. Finally, the educational attainment of the adult population reflects the labor force competitive level in the region.

How are we doing?

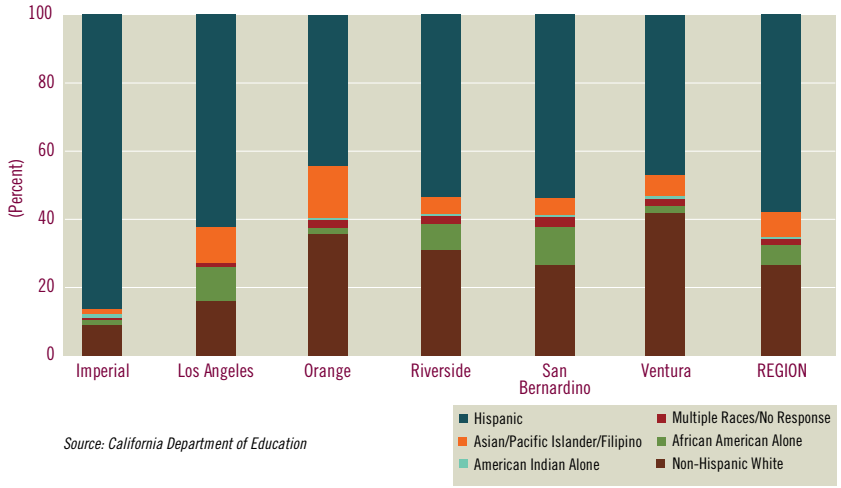
During the 2005/2006 school year, there were approximately 3.2 million public school students and 150,000 teachers from kindergarten to 12th grade (K-12). The student-teacher ratio was 21.5 in 2006, slightly higher than the state average at 21. Since 2000, total number of students grew by 170,000 (5.6 percent), while the number of teachers rose by only about 4,000 (2.7 percent). The slower growth of teachers was primarily due to the state budget shortfall during 2002 and 2003 that led to teacher reductions. Hence, the student-teacher ratio increased slightly from 20.9 to 21.5 between 2000 and 2006.



Among the 3.2 million students in 2006, about 1.8 million (57 percent) were Hispanics, significantly higher than their share of the general population of 44 percent. In Imperial County, 86 percent of the K-12 students were of Hispanic origin. Non-Hispanic White students accounted for only 860,000 (27 percent), significantly lower than their share of the general population of 36 percent.

Figure 105

K-12 Students by Race/Ethnicity, 2005-2006



Source: California Department of Education

Test Scores

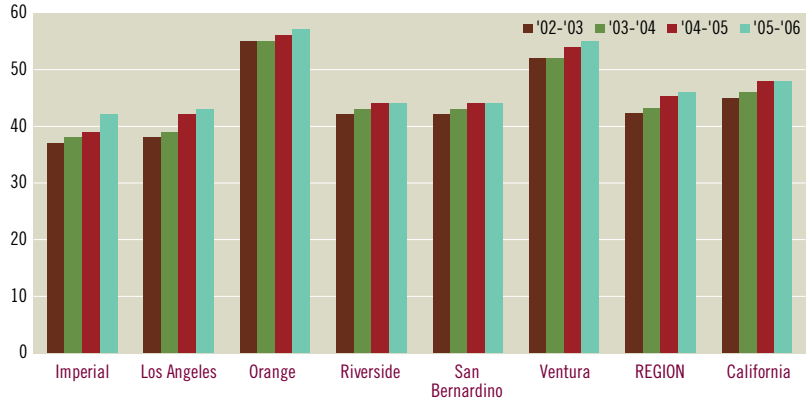
In 2006, the 7th graders in the region continued to perform below the national median in reading and math test scores except in Orange and

Ventura counties (Figures 106 and 107). Since 2000, the region's performance has tracked closely with that of the state.

Between 2003 and 2006, the region achieved steady progress in math test scores relative to the nation. During this period, the national percentile rank of the average student score in the region rose from 44 percentile to 48 percentile, and improvement took place in every county in the region.

Figure 106

Math Test Scores for 7th Grade
(National Percentile Rank of Average Student Score)

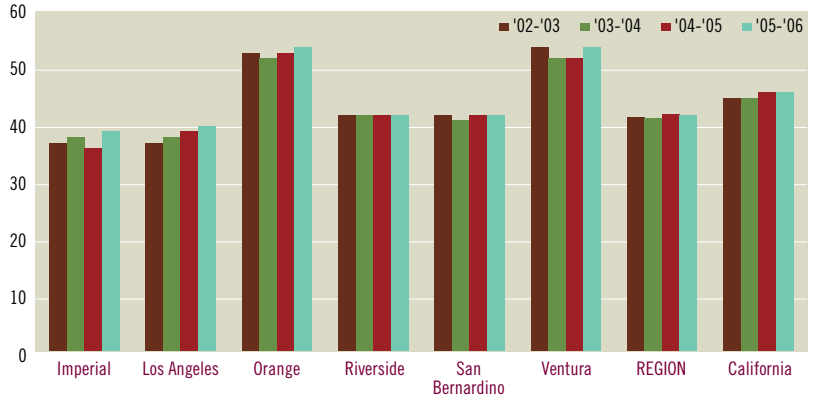


Source: California Department of Education

As to the reading test scores, only Los Angeles and Imperial counties achieved consistent improvements between 2003 and 2006. It should be noted that the share of English learners in these two counties also decreased during the same period. In 2006, the share of English learners in 7th grade ranged from about 17 percent in Ventura and San Bernardino counties to 38 percent in Imperial County (Figure 108).

Figure 107

Reading Test Scores for 7th Grade
(National Percentile Rank of Average Student Score)

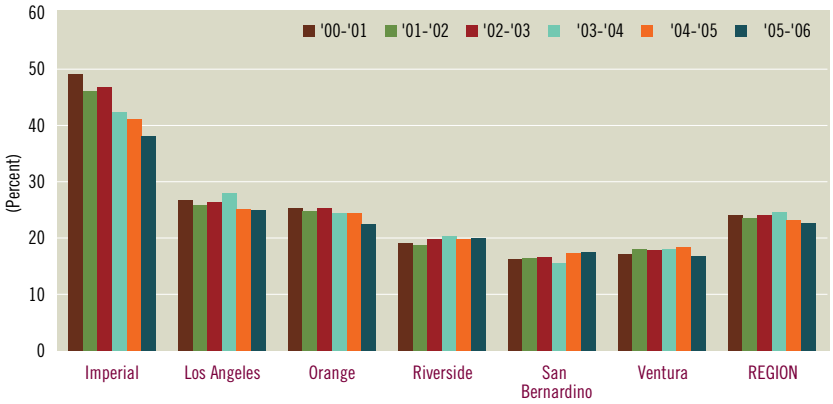


Source: California Department of Education



Figure 108

Share of English Learners in 7th Grade

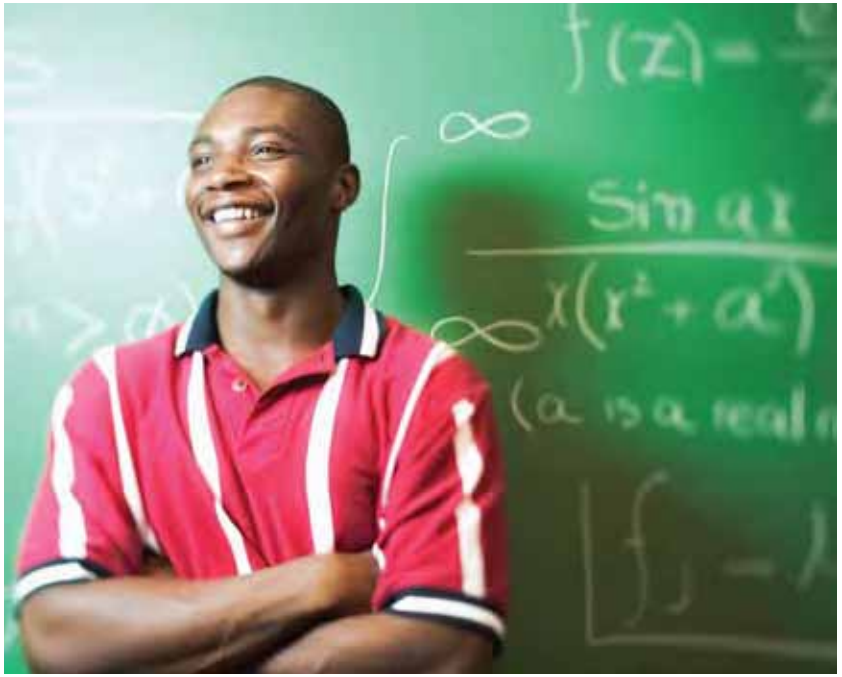


Source: California Department of Education

Test scores are affected by several factors including, for example, the proportion of students who are English learners, and the student/teacher ratio. Between 2000 and 2006, the total number of English learners from K-12 decreased in Los Angeles and Orange counties while increasing in the Inland Empire. Specifically, the number of English learners fell by 7 and 18 percent in Los Angeles and Orange counties respectively. During this period, the number of English learners in Riverside County rose by 19 percent while it grew by 25 percent in San Bernardino County. As to the student/teacher ratio, California continues to have the second highest in the nation, and ranked 44th in math at 4th and 8th grades, 48th in reading at 4th grade, and 49th in reading at 8th grade.[1]

Dropout Rates

Between 2000 and 2006, the dropout rates for high schools in the region rose from 12.1 percent to 15.3 percent, and continued to be slightly higher than the state average at 14.9 percent (Figure 109). In 2006, both San Bernardino (20.6 percent) and Los Angeles (17.5 percent) counties experienced significantly higher dropout rates than the state average.



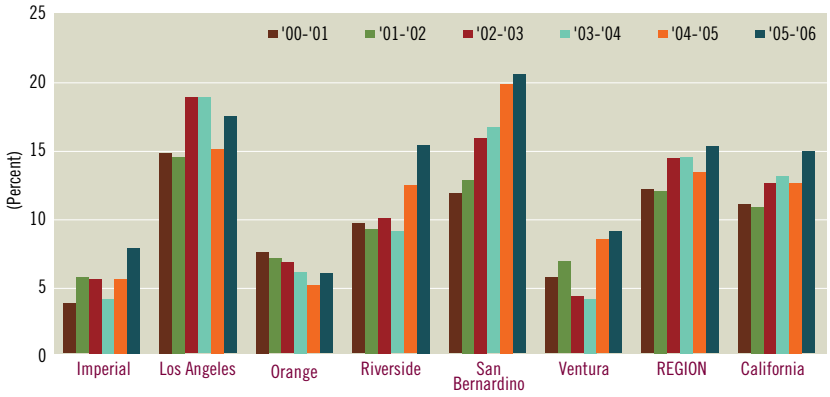
In 2006, every county in the region experienced higher dropout rate than in 2005. *For San Bernardino County, its dropout rate increased continuously from about 12 percent during 2000-2001 school year to almost 21 percent during 2005-2006, the highest in the region.* Between 2000 and 2006, dropout rates also increased significantly in Riverside County.

Within the region, Orange County achieved the lowest dropout rates in 2006 at about 6 percent, slightly higher than its 2005 level after four consecutive years of decline. It should be noted that in the 2002-2003

school year, the California Department of Education started using the National Center for Education Statistics dropout rate criteria.

Figure 109

Dropout Rates in Public High Schools



Source: California Department of Education

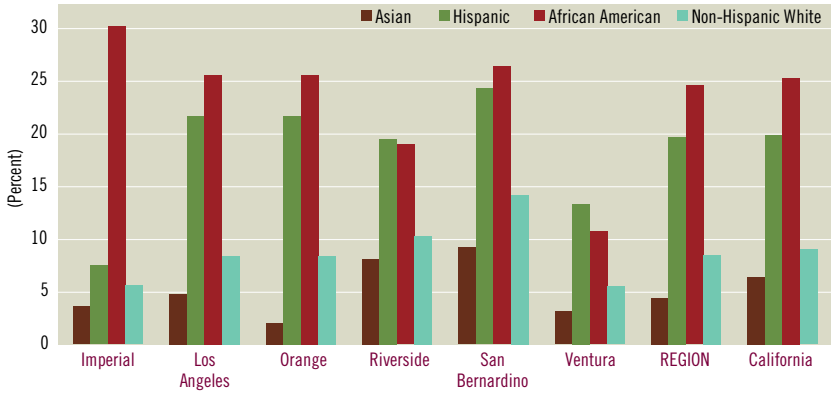
African American and Hispanic high school students across the region and the state, when compared with their White and Asian peers, had significantly higher dropout rates (Figure 110). For example, in 2006, the dropout rate for African American students in San Bernardino County reached 26.4 percent, and Hispanic students with 24.3 percent compared with 14.2 percent for non-Hispanic Whites and 9.2 percent for Asians.

A recent national study found that socioeconomic status - based on parents' income and education, rather than race or ethnicity - is the key indicator of dropout.[2] Specifically, African American and Hispanic youth are no more likely to drop out of high school than their White or Asian peers of similar family income and education. The higher percentage of African American and Hispanic dropouts of high school is primarily because they are overrepresented in the lowest income groups. Dropout rates also appear highly related to student achievement.[3]

As to approaches to prevent high school dropouts, the National Research Council finds no easy solutions.[4] Key features of successful programs in reducing dropouts include, among others, an effective instructional program, early attention to low performance students, more personalized school and more parental involvement.[5] Therefore, increase the number of school support staff, such as counselors, mentors, and social workers particularly in lower-income areas would contribute to reduce dropout rates.

Figure 110

Dropout Rates by Race/Ethnicity in Public High Schools, 2005/2006



Source: California Department of Education

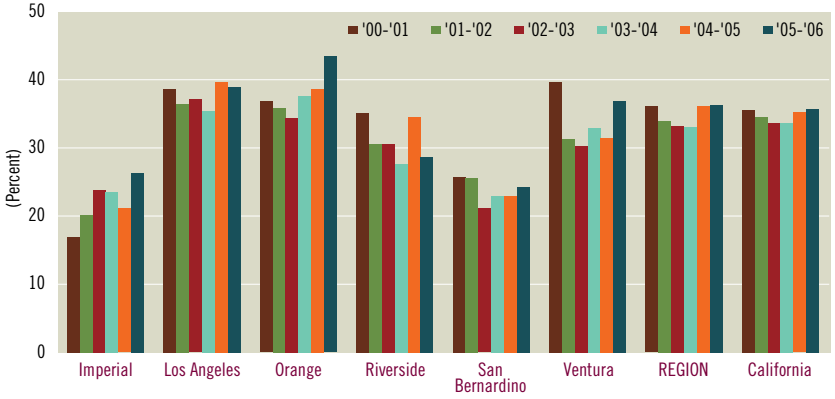
College Readiness

In 2006, only 36 percent of high school graduates completing courses required for University of California (UC) or California State University (CSU) entrance. When compared with 2000, there were little improvements in college readiness in 2006 at the regional level, though Orange

and Imperial counties made notable improvement. In 2006, with the exception of Orange County, every county in the region had less than 40 percent of high school graduates complete courses required for UC or CSU entrance (Figure 111).

Figure 111

High School Graduates Completing Courses Required for UC or CSU Entrance



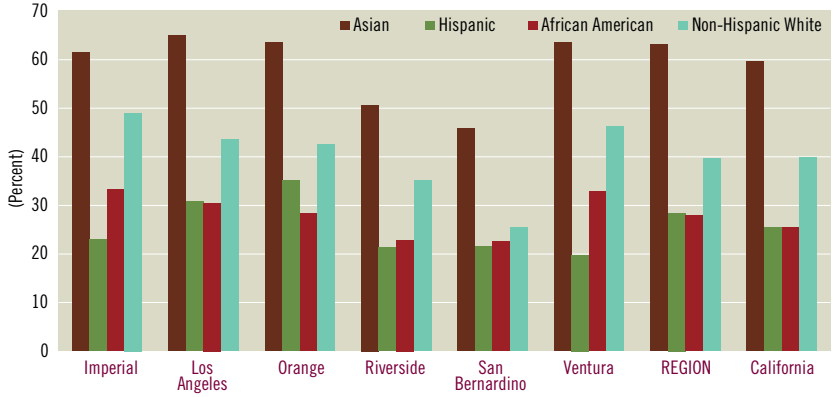
Source: California Department of Education

There were also similar patterns of racial and ethnic disparities in the region with respect to college readiness (Figure 112). In each of the six counties in the region, Asian students consistently achieved the highest percentage in completing courses required for UC or CSU entrance. For example, while 65 percent of Asian graduates in Riverside County completed courses required for UC or CSU entrance, only 44 percent of the non-Hispanic White students, approximately 30 percent of the African and Hispanic students accomplished the same. Among Hispanics, two-year community colleges are the most frequently used institutions of higher education.

When compared with other states, California has one of the lowest percentages of high school seniors enrolling in 4-year colleges.[6] Factors contributing to this low performance include, among others, lack of college preparatory curriculum along with fewer adequately trained teachers and counselors.

Figure 112

High School Graduates Completing Courses Required for UC/CSU Entrance by Race/Ethnicity, 2005/2006



Source:California Department of Education

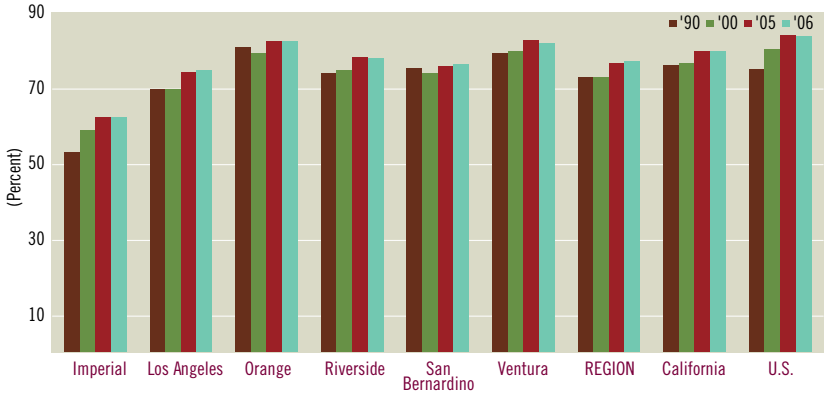
Educational Attainment

Between 2000 and 2006, there were noticeable improvements in educational attainment in the region consistent with national trends. The percentage of adults with at least a high school degree increased from 74 to 77 percent while the percentage of adults with at least a bachelor's degree increased from 25 to 27 percent (Figures 113 and 114). However, among the nine largest metropolitan regions, the SCAG region remained in last place in 2006 in the percentage of adults (77 percent) with at least a high school diploma (see Figure 132 page 150), and second to last for at least a bachelor's degree (27 percent) (see Figure 133 page 150). The

Washington DC region had the highest percentage of adults with at least a bachelor's degree (41 percent).

Figure 113

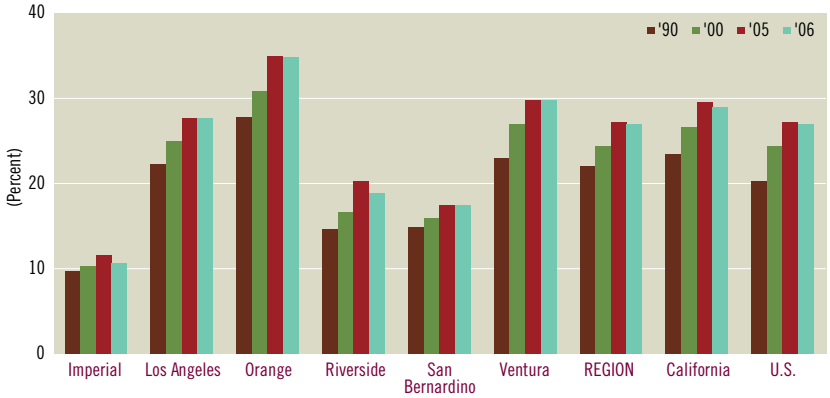
Educational Attainment
(Percent of Persons 25 Years and over with High School Diploma or Higher)



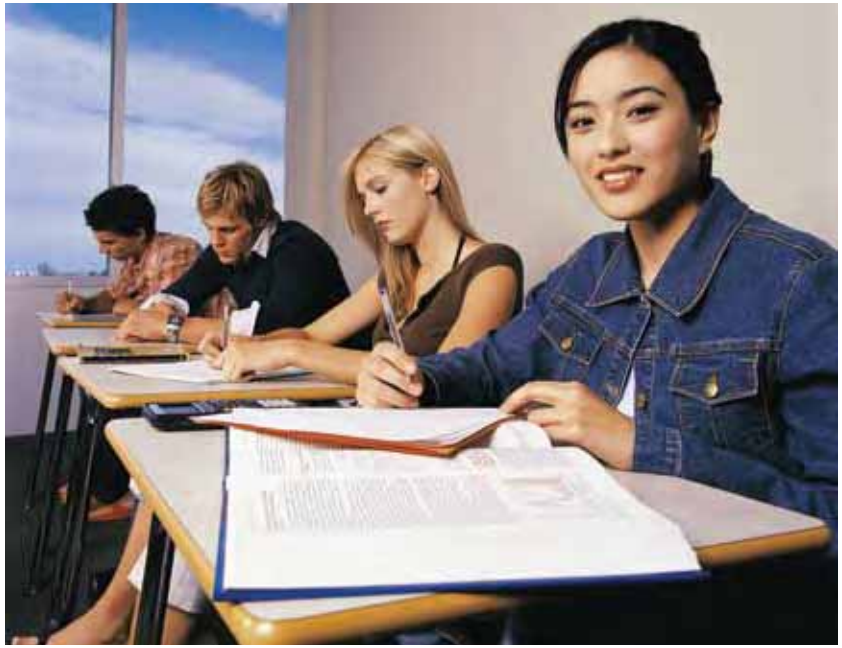
Source: U.S. Census Bureau, 1990 and 2000 Census, 2005 and 2006 American Community Survey

Figure 114

Educational Attainment
(Percent of Persons 25 Years and over with Bachelor's Degree or Higher)



Source: U.S. Census Bureau, 1990 and 2000 Census, 2005 and 2006 American Community Survey



Within the region, Orange County is the only county with educational attainment much higher than the state or national average. There are much greater disparities among counties with respect to the share of adults with at least a bachelor's degree than with at least a high school diploma.

Since 2000, the coastal counties have achieved more progress in educational attainment for at least a bachelor's degree than the inland counties. During this period, the coastal counties improved by 2.8 (Los Angeles) to 4 (Orange) percentage points as to the share of adults with at least a bachelor's degree, while the inland counties only increased by 0.3 (Imperial) to 2.3 (Riverside) percentage points. In 2006, Orange County continued to have the highest percentage of adults with at least a bachelor's degree (34.8 percent). However, less than 11 percent of adults in Imperial County achieved the same.

Public Safety

Why is this important?

Crime-related activities consume an enormous amount of valuable social and economic resources. The social costs are substantial if less quantifiable, including pain and suffering of crime victims and their families and weakening of community cohesion. The economic costs include loss of productivity due to death or disability resulting from crime, medical costs, and loss of property values in neighborhoods with high crime rates.

How are we doing?

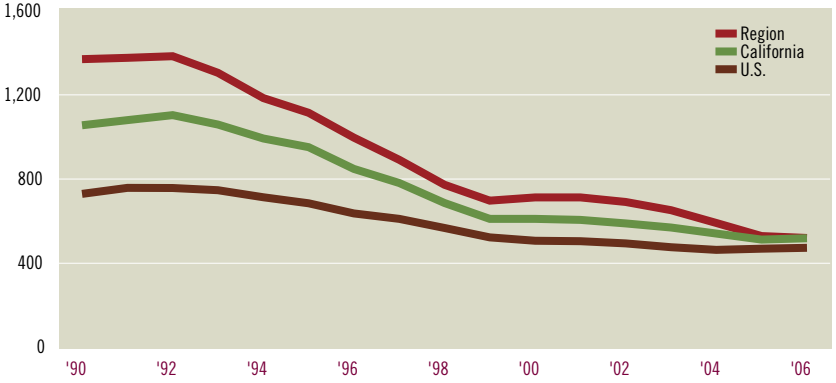
Violent Crimes

The violent crime rates in the region peaked in 1992 and then began an extended decline to its lowest level in three decades. This is generally consistent with the trends at the state and national levels (Figure 115). In 2006, the violent crime rate in the region was less than 40 percent of its 1992 level. In addition, the gap between the region and the state in violent crime rates has finally been closed, and the gap between the region and the nation has been significantly narrowed.



Figure 115

Violent Crimes
(Per 100,000 Population)



Source: California Department of Justice, California Department of Finance, and FBI 2006 Uniform Crime Report (for U.S. only)

Factors contributing to the extended reductions of violent crime rates since 1992 in the region include, among others, higher rates of incarceration, increased resources toward law enforcement, and improvements in the economic conditions particularly the consistent reductions in unemployment rates.[7] However, since the September 11 terrorist attack in 2001, local police departments have been squeezed by growing domestic security concerns at a time when federal agencies such as the FBI are focusing more on preventing terrorism than assisting local police fighting traditional crimes.[8]

In 2006, the violent crime rate in the region decreased slightly by 1.7 percent from 2005, after an 11-percent reduction during the previous period.

At the state and national levels, violent crime rate increased slightly by 1.2 percent and 1 percent respectively between 2005 and 2006.

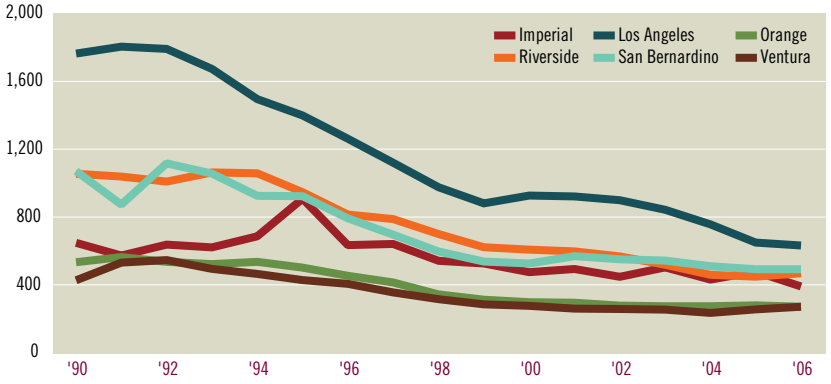
Violent crimes include four types: homicides, forcible rapes, robberies and aggravated assaults. In 2006, the region had a total of 95,592 violent crime incidents, a decline of 6 percent from 2005. Among them, 51,849 (or 54 percent) were aggravated assaults, 38,333 (40 percent) were robberies, 4,017 were forcible rapes (4 percent) and 1,393 (2 percent) were homicides. *From 2005 to 2006, though the total number of aggravated assaults and homicide decreased in the region, however, there were increases in robberies.* During this period, the number of robberies increased by 7 percent in the region consistent with the national trend and every county in the region experienced an increase. The number of homicides in the region, however, decreased by 5 percent to be below the 2004 level. Los Angeles County continued to account for almost three-quarters of all homicides in the region.

Within the region, Imperial County achieved the most significant reduction of 18 percent in its violent crimes rate, followed by Orange (-2.8 percent) and Los Angeles (-2.6 percent) counties (Figure 116). Almost three-quarters of the violent crimes took place in Los Angeles County.



Figure 116

Violent Crimes by County
(Per 100,000 Population)



Source: California Department of Justice

In 2006, the violent crime rate in the SCAG region at 520 (per 100,000 population) was only about 10 percent higher than the national average at 474 (per 100,000 population). However, within the region, the violent crime rates in Ventura and Orange counties were 40 percent below the national average in 2006, and only Los Angeles and San Bernardino counties experienced higher rates than the national average (see Figure 134 page 151).

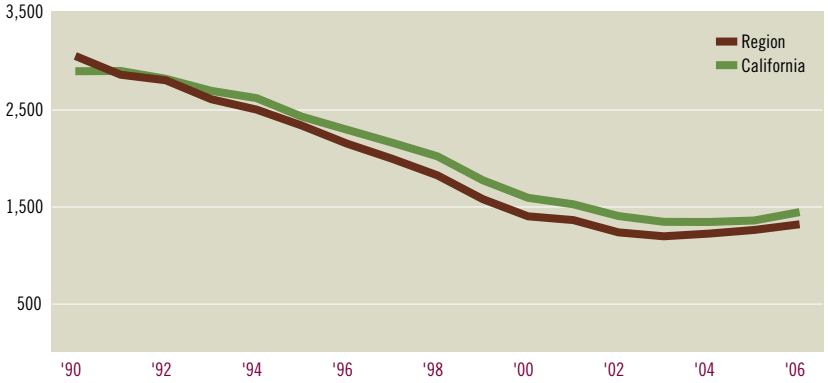
Juvenile Felony Arrests

A juvenile felony offense is defined as a crime that is punishable by death or imprisonment for those aged 10 to 17. In 2006, the region had about 2.33 million juveniles, only a 0.6 percent increase from the previous year. Felonies include crimes such as murder, assault, rape, robbery, burglary, and serious drug offenses. Exposure to the criminal justice at an early age correlates with increased likelihood of criminal activity and incarceration in adulthood.

From 2005 to 2006, the juvenile felony arrest rate in the region increased by almost 5 percent. This was the third consecutive year of increase in contrast to the trend of continuous decline between 1990 and 2003. Nonetheless, the juvenile felony arrest rate in the region in 2006 was only 43 percent of its 1990 level. The state of California had similar performance trends of juvenile felony arrest rate, rising by 6 percent between 2005 and 2006 (Figure 117).

Figure 117

Juvenile Felony Arrests
(Per 100,000 Population Aged 10-17)



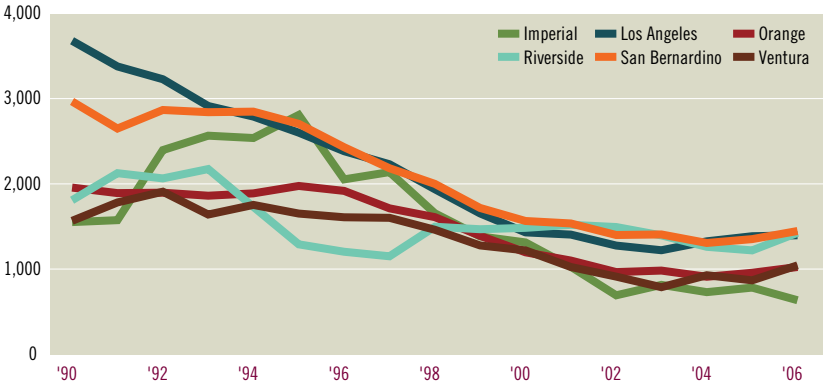
Source: California Department of Justice

Since 2000, the Inland Empire and Los Angeles County have experienced higher rates in juvenile felony arrest than the other three counties (Orange, Ventura and Imperial). Between 2005 and 2006, the juvenile felony arrest rate in Riverside County increased by 17 percent, while it increased by 7 percent in San Bernardino County but only 1 percent in Los Angeles County. Ventura County, though with relatively low level of juvenile arrest rate, saw a 20 percent increase in 2006 while Orange County increased by 7 percent. Only Imperial County enjoyed a 19 percent reduction (Figure 118).



Figure 118

Juvenile Felony Arrests by County
(Per 100,000 Population Aged 10-17)



Source: California Department of Justice

In 2006, the region had a total of 30,754 juvenile felony arrests, 5.3 percent more than that in 2005. Among them, 6,115 arrests (or 20 percent) were for burglary, 5,112 arrests (17 percent) for theft (including motor vehicles) and another 4,355 arrests (or 14 percent) for assault.

In addition, 2,794 arrests (or 9 percent) were for drug law violation. More than three quarters of the total juvenile arrests were males.

Property Crimes

In 2006, the property crime rate in the region decreased by 5 percent from 2005, just below its 2001 level. At the state level, property crime rate also declined slightly by 3 percent between 2005 and 2006 (Figure 119). Property crime rates in both the region and the state reached their lowest level in 1999 (since 1996) and then climbed up again until 2003. Since 2003, the property crime rate has generally been on a slightly downward path. In 2006, among the 319,355 property crime incidents, they were almost equally split among burglary, motor vehicle theft and larceny-theft-over $400.

Figure 119

Property Crimes
(Per 100,000 Population)



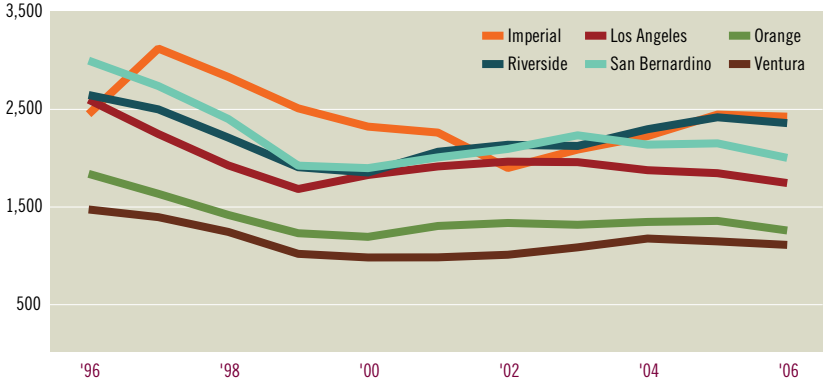
Source: California Department of Justice and California Department of Finance

Within the region, Ventura and Orange counties consistently have the lowest rates of property crimes in the region. Since 2004, Imperial and Riverside counties have had the highest rates of property crimes.

Between 2005 and 2006, every county achieved some reductions in its property crime rate. Specifically, San Bernardino and Orange counties achieved notable reductions of 7 percent respectively (Figure 120).

Figure 120

Property Crimes by County
(Per 100,000 Population)



Source: California Department of Justice



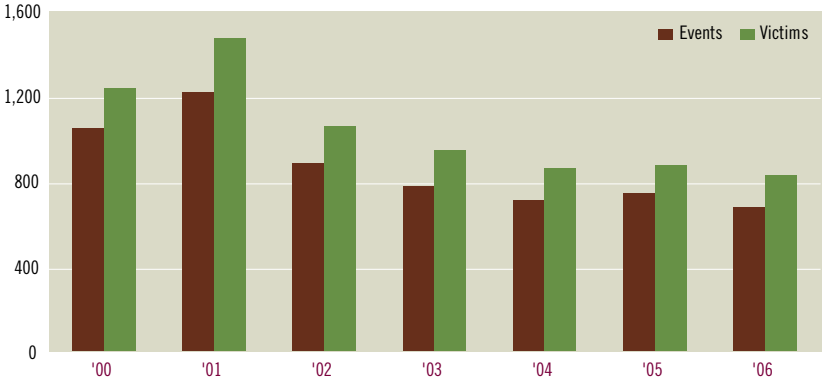
Hate Crimes

Between 2005 and 2006, the number of hate crime events and victims in the region decreased by 9 percent and 5 percent respectively, after a slight increase during the previous period (Figure 121). Hate crimes can be in the form of violent crimes (61 percent) or property crimes (30 percent).[9] As to the motivations for hate crimes, statewide data indicated that about 67 percent of the victims in 2006 were due to race/ethnicity/national origin bias followed by about 19 percent for sexual orientation bias and 14 percent for religious bias. About 32 percent of the hate crimes events took place on highways/streets, another 29 percent around residences, 9 percent in schools/colleges, 8 percent in parking lots/garages and 5 percent in churches/synagogues/temples.

The year 2001 was the peak year in hate crimes in the last five years due primarily to the September 11 terrorist attacks. Within the region, Los Angeles County experienced disproportionately higher hate crime incidences. In 2006, about two-thirds of all hate crime events and victims were in Los Angeles County, nevertheless, a decline of almost 80 percent since 2000.

Figure 121

Hate Crime Activities



Source: California Department of Justice



In 2006, the total population in the nine largest metropolitan regions exceeded 91 million, about a third of the nation's population.

Metropolitan Regions

In order to fully assess the progress of Southern California, it is useful to compare the performance of the SCAG region with other large metropolitan regions in the nation. Currently, there are nine metropolitan regions in the nation with more than 5 million residents (Figure 122). They are also designated by the U.S. Census Bureau as Combined Statistical Areas (CSAs). Four are located in the Northeast (Boston, New York, Philadelphia, Washington, DC), two in the Midwest (Chicago and Detroit), one in the South (Dallas) and two in the West (San Francisco Bay Area and SCAG region). In 2006, only two had population exceeding 10 million, the New York region (22 million) and the SCAG region (18.4 million). Total population in the nine largest metropolitan regions exceeded 91 million in 2006, about a third of the nation's population.



Socio-Economic Indicators

Population

Between 2000 and 2006, among the nine largest metropolitan regions, the SCAG region achieved the largest population increase of almost 1.9 million people. Southern California also experienced the 2nd highest growth rate (11.3 percent) following Dallas (15.9 percent). In addition to the Dallas and the SCAG regions, only the Washington region achieved a growth rate higher than 5 percent. Specifically, during the six-year period, there were little population growth in the San Francisco Bay Area (1.9 percent) and the Detroit region (1 percent).

Figure 122

Population by Metropolitan Region (Thousands)

Rank	Metropolitan Region Name	2000	2006	2000/2006 Number	2000/2006 % Change
1	New York-Newark-Bridgeport, NY-NJ-CT-PA CSA	21,361.8	21,976.2	614.4	2.9%
2	SCAG REGION*	16,516.0	18,389.1	1,873.1	11.3%
3	Chicago-Naperville-Michigan City, IL-IN-WI CSA	9,312.3	9,725.3	413.0	4.4%
4	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV CSA	7,572.6	8,211.2	638.6	8.4%
5	San Francisco-Oakland-Dan Jose, CA CSA	7,092.6	7,228.9	136.3	1.9%
6	Philadelphia-Camden-Vineland, PA-NJ-DE-MD CSA	6,207.2	6,382.7	175.5	2.8%
7	Boston-Worcester-Manchester, MA-RI-NH CSA	7,298.7	7,465.6	166.9	2.3%
8	Dallas-Fort Worth, TX CSA	5,488.0	6,359.8	871.8	15.9%
9	Detroit-Warren-Flint, MI CSA	5,357.5	5,410.0	52.5	1.0%
	Total	**86,206.7**	**91,148.8**	**4,942.1**	**5.7%**

**The SCAG region includes Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties With the exception of Imperial, the other five counties belong to the Los Angeles-Riverside-Orange Combined Statistical Area (CSA)*
Source: U.S. Census Bureau, 2000 Census and July 1, 2006 population estimates

Average Wage per Job

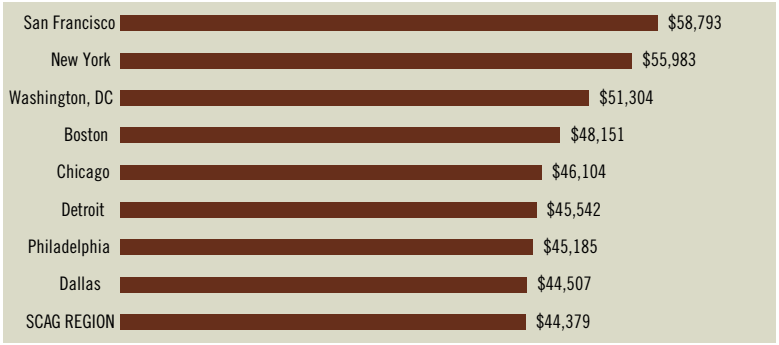
The SCAG region ranked last in average wage per job at about $44,379 among the nine largest metropolitan regions in 2005 (the most current year for which comparative data for metropolitan regions are available).



The San Francisco Bay Area managed to achieve the highest increase (2.7 percent) in 2005, and continued to have the highest average wage per job at approximately $58,800 in 2005, followed by the New York region at about $56,000.

Figure 123

Average Wage Per Job by Metropolitan Region, 2005

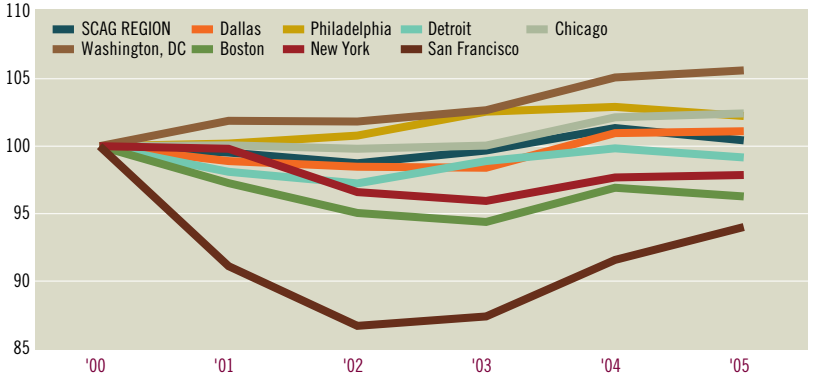


Source: U.S. Bureau of Economic Analysis

In 2005, only five of the nine metropolitan regions achieved higher real average wage per job than their respective 2000 levels. Between 2000 and 2005, the Washington D.C. region had the best performance with an almost 6 percent increase, followed by the Chicago and Philadelphia regions. The SCAG region had an average performance with only a 0.4 percent increase. During this period, the San Francisco Bay Area lost the most ground with only 94 percent of its 2000 level in 2005.

Figure 124

Real Wage Payroll Per Job by Metropolitan Region
(2000 as the Base Year=100)



Source: U.S. Bureau of Economic Analysis

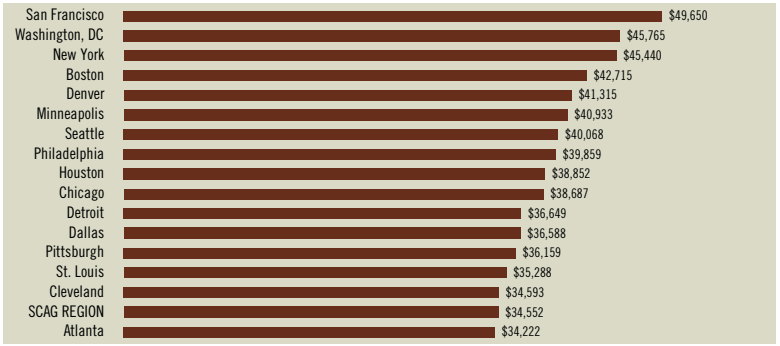
Income

Among the 17 largest metropolitan regions in the nation, the SCAG region ranked 16th in terms of per capita income in 2005 (the most current year for which comparative data for metropolitan regions are available), a slight improvement from the previous year when it ranked last. Over the past three decades, the SCAG region's per capita income ranking dropped from the 4th highest in 1970 to 7th highest in 1990, and 16th place in 2000.



Figure 125

Per Capita Income by Metropolitan Region, 2005

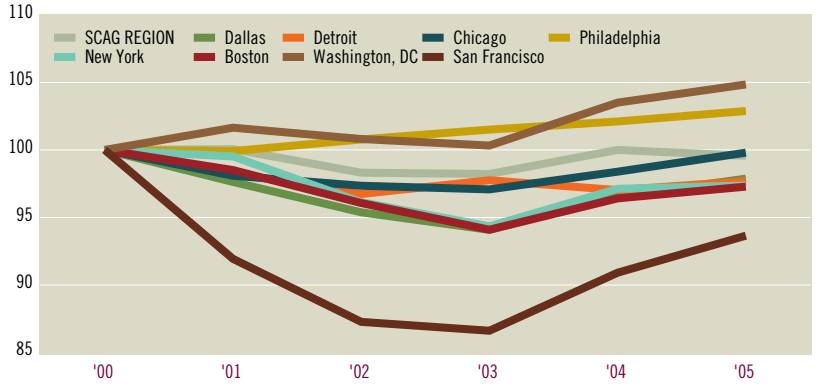


Source: U.S. Bureau of Economic Analysis

In 2005, only two of the nine metropolitan regions achieved higher real per capita income than their respective 2000 levels. Between 2000 and 2005, the Washington D.C. region accomplished the best performance with an almost 5 percent increase, followed by the Philadelphia region with a 3 percent improvement. The SCAG region had an average performance just below its 2000 level. During this period, the San Francisco Bay Area lost the most ground with only 94 percent of its 2000 level in 2005.

Figure 126

Real Per Capita Income by Metropolitan Region
(2000 as the Base Year=100)



Source: U.S. Bureau of Economic Analysis

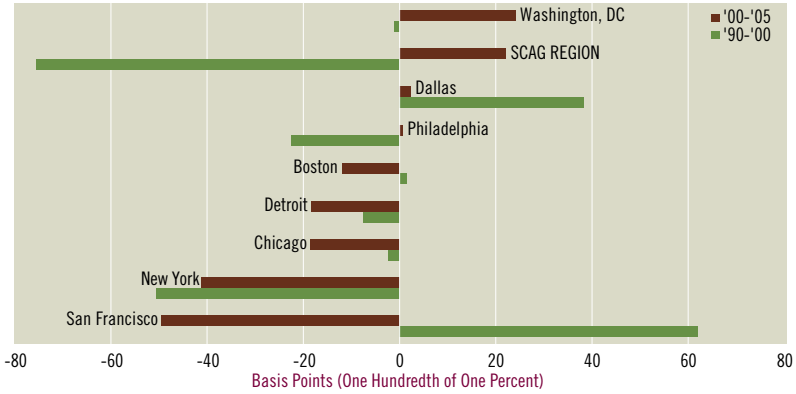
Between 2000 and 2005, the SCAG region performed at a better level in its growth of total personal income than the per capita personal income. During this period, SCAG region's share of the total personal income in the nation increased by 0.22 percent, exceeded only by the Washington DC region (0.24 percent). Among the nine largest metropolitan regions in the nation, five experienced declining shares during the five year period. The San Francisco Bay Area suffered the worse performance with a sharp decrease of almost 0.50 percent in its share,



while the New York region experienced a decline of 0.41 percent. However, during the 1990s, the SCAG region suffered the largest loss in its national share of 0.76 percent while the San Francisco Bay Area achieved the largest gain of 0.62 percent.

Figure 127

Change in Share of U.S. Personal Income by Metropolitan Region



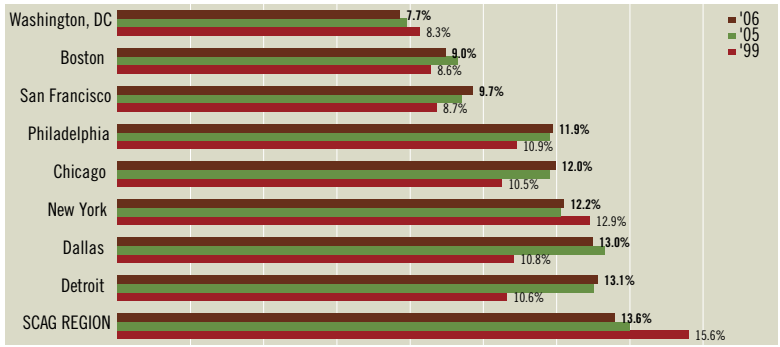
Source: U.S. Bureau of Economic Analysis

Poverty

In 2006, though the SCAG region continued to have the highest poverty rate among the nine largest metropolitan regions in the nation, the gaps were narrowed significantly. Since the 2000 Census, poverty rate in the SCAG region was reduced by almost 2 percentage points to 13.6 percent, while poverty rates in the Detroit and Dallas regions increased by more than 2 percentage points respectively to reach about 13 percent. The Washington DC region accomplished the lowest poverty rate of only 7.7 percent.

Figure 128

Persons in Poverty by Metropolitan Region



Source: U.S. Census Bureau, 2000 Census, 2005 and 2006 American Community Survey

Housing

Between 2000 and 2006, homeownership in the SCAG region improved steadily to reach almost 57 percent, an increase of about 2 percentage points. However, during the same period, five of the other eight metropolitan regions achieved larger increases in homeownership rates than the SCAG region. Among the nine largest metropolitan regions in the nation, the SCAG region continued to have the second lowest

homeownership, just above the New York region (56 percent), while the Detroit region had the highest homeownership rate at 74 percent.

Figure 129

Homeownership by Metropolitan Region



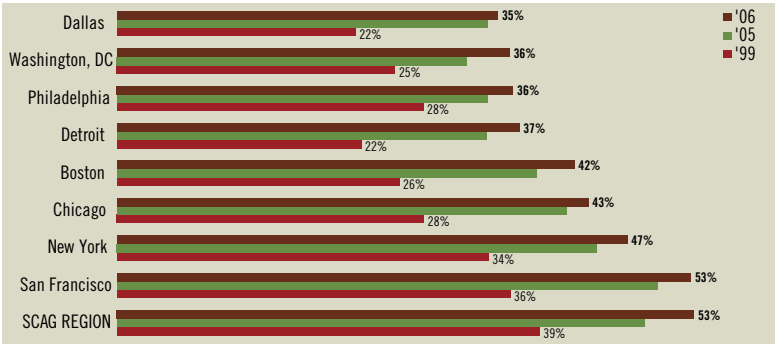
Source: U.S. Census Bureau, 2000 Census, 2005 and 2006 American Community Survey



In 2006, the SCAG region had the highest housing cost burden among the nine largest metropolitan regions in the nation, with 53 percent of its owner households paying 30 percent or more of their incomes on housing. The San Francisco Bay Area ranked a close second in housing cost burden. The Dallas region achieved the lowest housing cost burden for owner households.

Figure 130

Housing Cost Burden by Metropolitan Region
(Owner Households Paying 30 Percent or More of Household Income on Housing*)

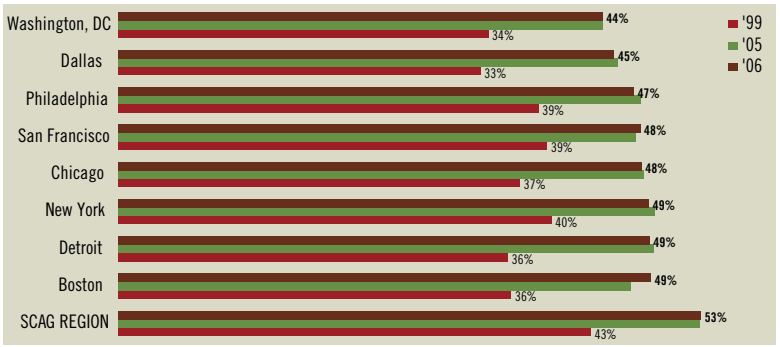


** Percentage share of all owner households with a mortgage*
Source: U.S. Census Bureau, 2000 Census, 2005 and 2006 American Community Survey

Among the nine largest metropolitan regions in the nation, the SCAG region continued to have the highest share (53 percent) of rental households with monthly rent at or greater than 30 percent of household incomes. Following the SCAG region was the Boston region, with 49 percent of renters spending 30 percent or more of their incomes on rent. It should be noted that for most metropolitan regions rental cost burdens were at higher levels than the corresponding owner cost burdens.

Figure 131

Rental Cost Burden by Metropolitan Region
(Renters with Rent above 30 Pecent of Household Income)



Source: U.S. Census Bureau, 2000 Census, 2005 and 2006 American Community Survey

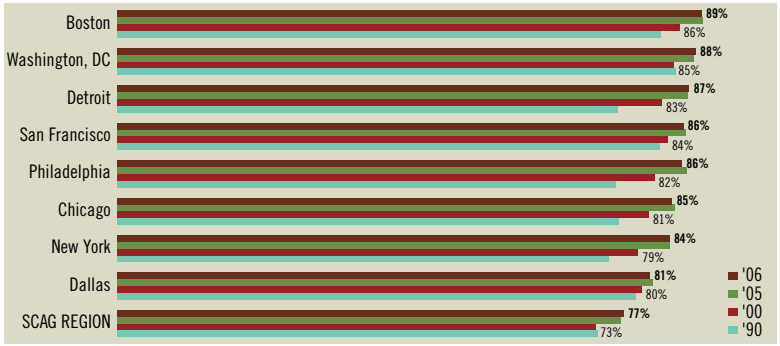
Education

Between 2000 and 2006, there were noticeable improvements in educational attainment in the SCAG region consistent with national trends. During this period, the percentage of adults with at least a high school degree increased from 74 to 77 percent while the percentage of adults with at least a bachelor's degree increased from 25 to 27 percent. However, among the nine largest metropolitan regions, the SCAG region remained in last place in the percentage of adults (77 percent) with at least a high school diploma, and second to last for at least a bachelor's degree (27 percent). The Washington DC region had the highest percentage of adults with at least a bachelor's degree (41 percent).



Figure 132

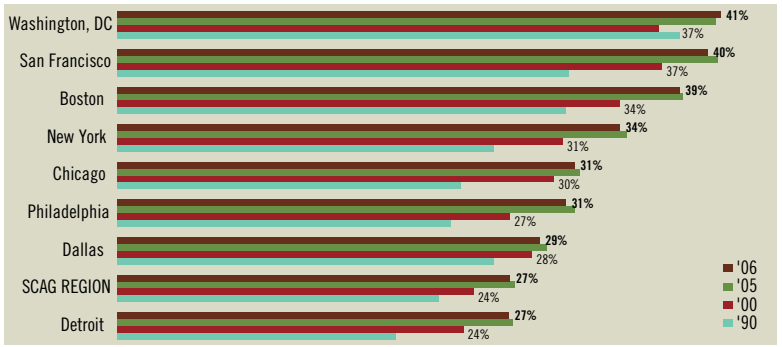
Educational Attainment by Metropolitan Region
(High School Diploma or Higher*)



**Percent of persons 25 years and over*
Source: U.S. Census Bureau, 1990 and 2000 Census, 2005 and 2006 American Community Survey

Figure 133

Educational Attainment by Metropolitan Region
(Bachelor's Degree or Higher*)



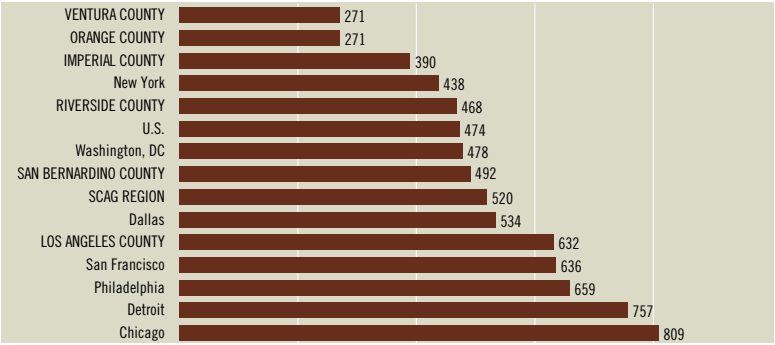
**Percent of persons 25 years and over*
Source: U.S. Census Bureau, 1990 and 2000 Census, 2005 and 2006 American Community Survey

Crime

Violent crime rates in Los Angeles County dropped by almost a third between 2000 and 2006. Accordingly, during the same period, Los Angeles County improved from having the second highest to the fifth highest violent crime rate among the large metropolitan areas in the nation. Orange and Ventura counties consistently had the lowest violent crime rates among the large metropolitan areas.

Figure 134

Violent Crimes by Metropolitan Area, 2006
(Per 100,000 Population)



**Based on Metropolitan Statistical Area unless noted otherwise. Chicago data is based on Cook County data.*
Source: FBI 2006 Uniform Crime Report; Illinois State Police 2006 Uniform Crime Report

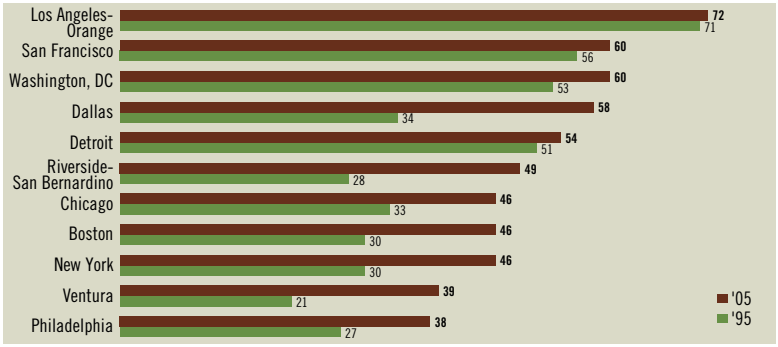
Transportation

Highway Congestion

In 2005, a traveler in Los Angeles/Orange counties during the peak period experienced a total of 72 hours of delay, the highest among all metropolitan areas. For Riverside/San Bernardino counties, the corresponding delay was a total of 49 hours, the 6th highest, and 39 hours for Ventura County. Between 1995 and 2005, annual delay per traveler changed little in Los Angeles/Orange counties while increasing more in other large metropolitan areas. During this period, annual delay per traveler increased significantly in Riverside/San Bernardino as well as in Ventura counties.

Figure 135

Annual Hours of Delay per Traveler by Metropolitan Area



Source: Texas Transportation Institute

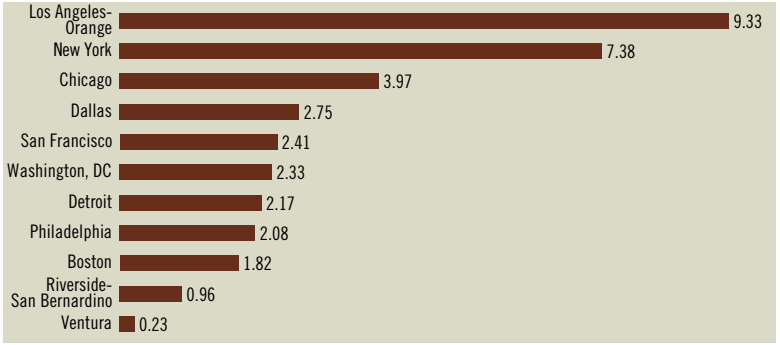




Total cost incurred due to congestion in the SCAG region was over $10.5 billion in 2005, significantly higher than any other metropolitan area in the nation. Close to half of the delay resulted from incidents.

Figure 136

Total Congestion Cost by Metropolitan Region, 2005
(Billion Dollars)



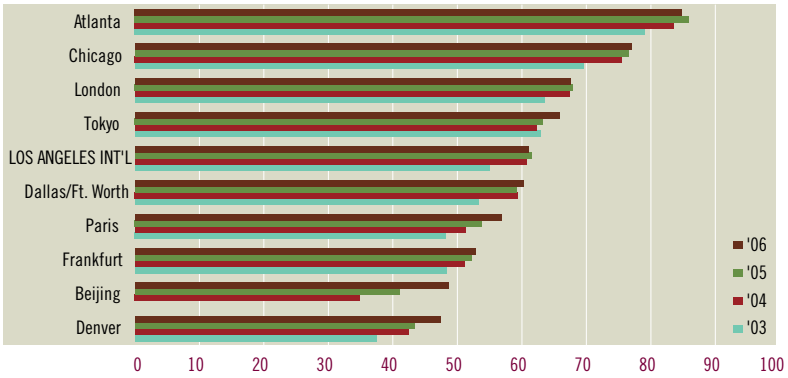
**Includes the costs from delay as well as additional fuels used.*
Source: Texas Transportation Institute

Airports

In 2006, among the ten largest airports in the world, LAX ranked 5th in passenger traffic, behind Atlanta, Chicago, London and Tokyo.

Figure 137

Top 10 Passenger Airports in the World
(Total Passengers in Millions)

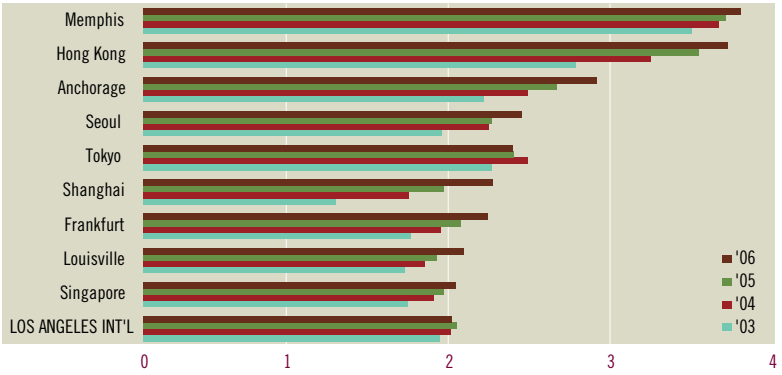


Source: Airports Council International

LAX also ranked 10th in total cargo volumes in 2006, surpassed by Shanghai, Louisville and Singapore since 2005.

Figure 138

Top 10 Cargo Airports in the World
(Cargo Volumes in Million Metric Tons)



2006 is based on preliminary data
Source: Airports Council International

Endnotes

Population

1 In addition to domestic migration, the other two components contributing to population growth are natural increases (births over deaths) and net foreign immigration. Between 1990 and 2006, natural increases and net foreign immigration generally had much smaller year-to-year variations than domestic migration. Hence, the variations in domestic migration largely determined the fluctuation of annual population growth in the region.

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6. Ibid. Alt-A loans, which fall between prime and sub-prime loans, increased from 2.7 percent of originations in 2001 to 13.4 percent in 2006. These loans allow some combination of low documentation, slightly subpar credit scores, and features such as interest-only or payment options.

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    The CIWMB obtains disposal information from returns filed with the California State Board of Equalization by disposal facility (landfill) operators. The figures reflect the amount of waste that is

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Mission Statement

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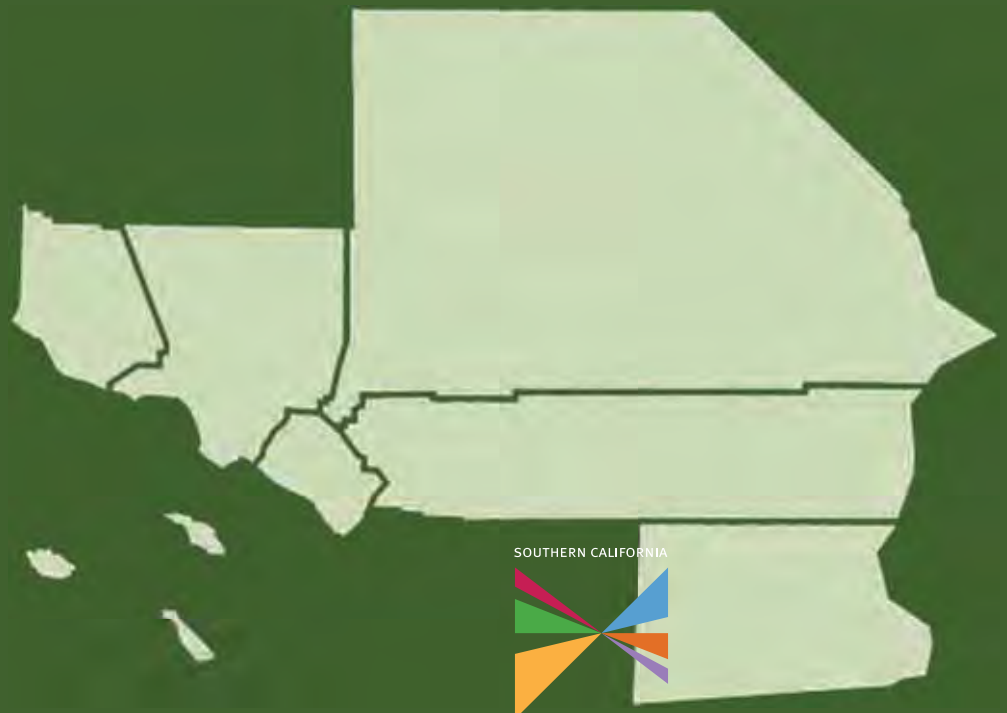
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SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

RTP

2008 REGIONAL TRANSPORTATION PLAN

Making the Connections

ADOPTED

MAY 2008

To the Region:



The Regional Council of the Southern California Association of Governments (SCAG) proudly presents the 2008 Regional Transportation Plan (RTP): Making the Connections, adopted on May 8, 2008. Success in transportation and transportation planning is about making the connections, whether it's connecting from bike to bus or truck to rail, relating the travel choices we make with environmental consequences, ensuring that land-use and transportation planning go hand-in-hand, or more equitably linking our transportation finance mechanisms to those who benefit directly from the use of the system.

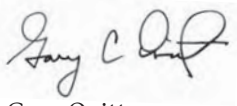
Southern California's transportation network is severely overburdened and underfunded. For at least the last two decades, we have consistently ranked as the nation's most congested metropolitan area. It is anticipated that over the next 25 years, the region's population will increase by 6 million people and cargo trade through our ports and airports will triple in the same time period, doubling our truck traffic. As a result, roadway speeds are expected to decrease and traffic delays to increase over the next 25 years, all changes that directly impact our environment and air quality.

The 2008 RTP strives to provide a regional investment framework to address the region's transportation and related challenges. It is a $531.5 billion Plan (in nominal or year-of-expenditure dollars) that emphasizes the importance of system management, goods movement, and innovative transportation financing. It looks to strategies that preserve and enhance the existing transportation system and integrate land use into transportation planning.

The RTP was developed in collaboration with agencies from across the region, including our 14 subregions. We worked with county transportation commissions, subregional organizations, transit agencies, tribal nations, non-profits and advocacy groups, and other interested stakeholders. The majority of projects that you will see in the Plan were submitted by our region's five county transportation commissions and the Imperial Valley Association of Governments.

Our region faces great challenges, and we cannot afford to try to solve them solely on a city or even county level. We must look at the bigger picture of Southern California as a region, to look at strategies and new transportation systems that will make this region function the best that it can, and at the end of the day, to make Southern California a place that we are all proud to call our home.

Sincerely,



Gary Ovitt

President, Southern California Association of Governments
Fourth District Supervisor, County of San Bernardino, California

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

REGIONAL TRANSPORTATION PLAN 2008

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RESOLUTION NO. 08-497-2

RESOLUTION OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS APPROVING THE 2008 REGIONAL TRANSPORTATION PLAN (2008 RTP) AND RELATED CONFORMITY DETERMINATION

WHEREAS, the Southern California Association of Governments (SCAG) is a Joint Powers Agency established pursuant to Section 6500 et seq. of the California Government Code;

WHEREAS, SCAG is the designated Metropolitan Planning Organization (MPO) pursuant to 23 U.S.C. §134(d) for the counties of Los Angeles, Riverside, San Bernardino, Ventura, Orange, and Imperial, and as such is responsible for preparing the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) pursuant to 23 U.S.C. §134 et seq., 49 U.S.C. §5303 et seq., and 23 C.F.R. §450.312;

WHEREAS, SCAG is the designated Regional Transportation Planning Agency (RTPA) under state law, and as such is responsible for preparing, adopting and updating the RTP pursuant to Government Code Sections 65080 et seq.;

WHEREAS, the projects included in the RTP must be based on the continuing, cooperative, and comprehensive transportation planning process mandated by 23 U.S.C. §134(c) (3) and 23 C.F.R. §450.312;

WHEREAS, on August 10, 2005, the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was signed into law, Pub. L. No. 109-59, Title VI, Section 6001(a), 119 Stat. 1839. SAFETEA-LU includes new and revised metropolitan transportation planning provisions and requires that all state and MPO actions on RTPs and RTIPs (including amendments, revisions or updates) comply with the SAFETEA-LU planning provision beginning July 1, 2007;

WHEREAS, SCAG staff conducted an analysis of the 2004 Regional Transportation Plan ("2004 RTP") which was in place at the time of the enactment of SAFETEA-LU, and thereafter identified the key issues or "gaps" in the 2004 RTP which needed to be addressed in order to comply with SAFETEA-LU. The effort led to the Regional Council's adoption in March 1, 2007 of an Administrative Amendment to the 2004 RTP (hereinafter referred to as the "Administrative Amendment") addressing these gaps. The Administrative Amendment to the 2004 RTP also allowed SCAG to take advantage of the four-year update cycle under SAFETEA-LU such that SCAG can adopt the next RTP update by the spring of 2008;

WHEREAS, in accordance with SAFETEA-LU, SCAG also approved and adopted a Public Participation Plan on March 1, 2007, to serve as a guide for SCAG's public involvement process. This Public Participation Plan was further amended on October 4, 2007, to provide more explicit details as to SCAG's strategies, procedures and techniques for public participation on the RTP, RTIP and the Overall Work Program (OWP);

WHEREAS, the Metropolitan Transportation Planning Final Planning Rule ("Final Rule") was promulgated by the U.S. Department of Transportation Federal Highway Administration and Federal Transit Administration on February 14, 2007, and became effective on March 16, 2007. The Final Rule included, among other things, more specific requirements relating to the content of metropolitan transportation plans (also known as RTPs).

WHEREAS, updates to the RTP must be consistent with all other applicable provisions of federal and state law including:

(1) SAFETEA-LU (23 U.S.C. §134 et seq.);

(2) The metropolitan planning regulations at 23 C.F.R. Part 450, Subpart C (i.e. the provisions of 23 C.F.R. §450.300 et seq. as set forth in the Final Rule);

(3) California Government Code §65080 et seq.; Public Utilities Code §130058 and 130059; and Public Utilities Code §44243.5;

(4) §§174 and 176(c) and (d) of the Federal Clean Air Act [42 U.S.C. §§7504 and 7506(c) and (d)];

(5) Title VI of the 1964 Civil Rights Act and the Title VI assurance executed by the State pursuant to 23 U.S.C. §324;

(6) The Department of Transportation's Final Environmental Justice Strategy (60 Fed. Reg. 33896 (June 29, 1995)) enacted pursuant to Executive Order 12898, which seeks to avoid disproportionately high and adverse impacts on minority and low-income populations with respect to human health and the environment; and

(7) Title II of the 1990 Americans with Disabilities Act (42 U.S.C. §§12101 et seq.) and accompanying regulations at 49 C.F.R. §27, 37, and 38;

WHEREAS, SCAG staff has been engaged in the preparation of the 2008 RTP update since the spring of 2007, with a focus on maintaining and improving the transportation system through a balanced approach that considers system preservation, system operation and management, improved coordination between land-use decisions and transportation investments, and strategic system expansion to accommodate future growth through the year 2035;

WHEREAS, the 2008 Draft RTP was released by SCAG's Transportation and Communications Committee (TCC) on December 6, 2007 for public review and comment, and a Notice of Availability was issued. The 2008 Draft RTP included a financially constrained plan and a strategic plan. The constrained plan includes transportation projects that have committed, available or reasonably available revenue sources, and thus are probable for implementation. The strategic plan is an illustrative list of additional transportation investments that the region would pursue if additional funding and regional commitment were secured; and such investments are potential candidates for inclusion in the constrained RTP through future amendments or updates. For purposes of the 2008 RTP update, the strategic plan is provided for information purposes only and is not part of the financially constrained and conforming RTP;

WHEREAS, the 2008 Draft RTP also included a financial plan identifying the revenues available to support the SCAG region's surface transportation investments. The financial plan was developed following basic principles including incorporation of county and local financial planning documents in the region where available, and utilization of published data sources to evaluate historical trends and augment local forecasts as needed;

WHEREAS, pursuant to 23 C.F.R. §450.316(b)(1)(iv), SCAG must provide adequate public notice of public involvement activities and time for public review and comment at key decision points, including approval of plans and transportation improvement programs. SCAG followed the provisions of its adopted Public Participation Plan and subsequent Amendment No. 1 regarding public involvement activities for the 2008 RTP. For example, three duly-noticed public hearings were conducted within the SCAG region to allow stakeholders, elected officials and the public to comment on the 2008 Draft RTP;

WHEREAS, the 2008 Draft RTP serves as the basis of the 2008 Final RTP, and addresses public comments and issues relating to projects and other relevant data which arose subsequent to the release of the 2008 Draft RTP. The public comment period for the 2008 Draft RTP closed on February 19, 2008. SCAG received approximately 150 written comments. Staff has fully considered these comments in preparing the 2008 Final RTP;

WHEREAS, there were several comments relating to the Growth Forecast/Land Use discussion in the 2008 Draft RTP. In part because of the public comments, the Regional Council on March 6, 2008, approved the Baseline Growth Forecast with a statement of advisory land use policies/ strategies for the 2008 Final RTP;

WHEREAS, there were also project-specific comments made as part of the public comment period. Additional information was also provided regarding certain transportation projects that were included in the 2008 Draft RTP, contingent upon adequate documentation that these projects meet the fiscal constraint requirements. Based upon staff's analysis as well as input from the TCC and Regional Council, the projects in the 2008 Final RTP represent projects which meet the fiscal constraint requirements of SAFETEA-LU and the Final Rule;

WHEREAS, in non-attainment and maintenance areas for transportation-related criteria pollutants, the MPO, as well as the FHWA and FTA, must make a conformity determination on any updated or amended RTP in accordance with the Federal Clean Air Act to ensure that federally supported highway and transit project activities conform to the purpose of the State Implementation Plan (SIP);

WHEREAS, transportation conformity is based upon a positive conformity finding with respect to the following tests: (1) regional emissions analysis, (2) timely implementation of Transportation Control Measures, (3) financial constraint, and (4) interagency consultation and public involvement;

WHEREAS, the 2008 Draft RTP included the Draft Conformity Report which concluded with a positive transportation conformity determination for all applicable non-attainment areas in the SCAG region. After the release of the Draft Conformity Report, SCAG was informed that the U.S. Environmental Protection Agency (EPA)'s review of the ozone and PM2.5 motor vehicle emission budgets for the South Coast Air Basin submitted by the California Air Resources Board (ARB) raised concerns such that the ARB was required to revise and resubmit the emission budgets to EPA. This requirement led to SCAG making appropriate revisions to the draft conformity analysis to reflect the new emissions budgets and release a subsequent Draft Conformity Report for an additional 30-day public review period ending April 28, 2008;

WHEREAS, the Conformity Report contained in the 2008 Final RTP makes a positive transportation conformity determination. Using the final motor vehicle emission budgets released by ARB and found to be adequate by EPA, this conformity determination is based upon staff's analysis of the applicable transportation conformity tests;

WHEREAS, in accordance with the interagency consultation requirements, 40 C.F.R. 93.105, SCAG consulted with the respective transportation and air quality planning agencies, including but not limited to, extensive discussion of the Draft Conformity Report before the Transportation Conformity Working Group (a forum for implementing the interagency consultation requirements) throughout the update process;

WHEREAS, SCAG is required to comply with the California Environmental Quality Act ("CEQA") [Cal. Pub. Res. Code § 21000 et seq.] in updating the Regional Transportation Plan;

WHEREAS, SCAG released for public review and comment a Draft 2008 Regional Transportation Plan Program Environmental Impact Report ("Draft PEIR") on January 3, 2008;

WHEREAS, the public comment period for the Draft PEIR closed on February 19, 2008. SCAG has fully considered these comments, and written responses to comments received are included in the Final PEIR Addendum;

WHEREAS, prior to the adoption of this resolution, the Regional Council certified the Final PEIR prepared for the 2008 Final RTP to be in compliance with CEQA;

WHEREAS, the Final Rule stipulates that each project or project phase included in the RTIP shall be consistent with the approved RTP (23 C.F.R. Section 450.324(g));

WHEREAS, this RTIP consistency requirement would be applicable with the Regional Council's adoption of the 2008 Final RTP. SCAG staff, therefore, amended the 2006 RTIP so as to be consistent with the 2008 Draft RTP. Such amendment to the 2006 RTIP was referred to as "Amendment #06-13" to the 2006 RTIP, and was released for public review by a Notice of Availability along with the 2008 Draft RTP and the Draft Conformity Report. The majority of changes to the 2006 RTIP included as part of RTIP Amendment #06-13 are modeling network changes (due to changes in project completion dates) and there are a few changes due to project description changes;

WHEREAS, the Regional Council has had the opportunity to review the 2008 Final RTP and its related appendices, and consideration of the 2008 Final RTP was made by the Regional Council as part of a public meeting held on May 8, 2008.

NOW, THEREFORE BE IT RESOLVED, by the Regional Council of the Southern California Association of Governments as follows:

1. The Regional Council approves and adopts the 2008 Final RTP for the purpose of complying with the requirements of SAFETEA-LU and all other applicable laws and regulations as referenced in the above recitals. In adopting this 2008 Final RTP, the Regional Council finds as follows:

a. The 2008 Final RTP complies with all applicable federal and state requirements, including the SAFETEA-LU planning provisions. Specifically, the 2008 Final RTP fully addresses the requirements relating to the development and content of metropolitan transportation plans as set forth in 23 C.F.R.§450.322 et seq., including issues relating to: transportation demand, operational and management strategies, safety and security, environmental mitigation, the need for a financially constrained plan, consultation and public participation, and transportation conformity.

b. The 2008 Final RTP represents the SCAG region's collective vision for addressing our transportation needs through 2035 within the constraints of committed, available, and reasonably available revenue resources.

2. The Regional Council hereby makes a positive transportation conformity determination of the 2008 Final RTP. In making this determination, the Regional Council finds as follows:

a. The 2008 Final RTP passes the four tests and analyses required for conformity, namely: regional emissions analysis; timely implementation of Transportation Control Measures; financial constraint analysis; and interagency consultation and public involvement.

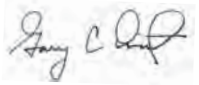
b. The effective date of the transportation conformity determination is deferred to the effective date of the adequacy findings made by the U.S. EPA regarding applicable emission budgets for the SCAG region.

3. In approving the 2008 Final RTP, the Regional Council also approves and adopts Amendment #06-13 to the 2006 RTIP, in order to address the consistency requirement of the federal law.

4. In approving the 2008 Final RTP, the Regional Council approves the staff findings as set forth in its reports and incorporates all of the foregoing recitals in this resolution.

5. SCAG's Executive Director or his designee is authorized to transmit the 2008 Final RTP and its conformity findings to the Federal Transit Administration and the Federal Highway Administration to make the final conformity determination in accordance with the Federal Clean Air Act and EPA Transportation Conformity Rule at 40 C.F.R. Parts 51 and 93.

APPROVED AND ADOPTED by the Regional Council of the Southern California Association of Governments at a regular meeting this 8th day of May 2008.



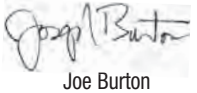
Gary Ovitt
President
Fourth District Supervisor,
San Bernardino County

Attested by:



Hasan Ikhrata
Executive Director

Approved as to Form:



Joe Burton
Chief Counsel

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EXECUTIVE SUMMARY



Success in transportation and transportation planning is about making the connections, whether it's connecting from bike to bus or truck to rail; relating the travel choices we make with environmental consequences; ensuring that land-use and transportation planning go hand in hand, or more equitably linking our transportation financing mechanisms to those who benefit directly from use of the system. The 2008 Regional Transportation Plan (RTP) connects the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties to a future vision in which innovative solutions address the daunting challenges we face today.

The 2008 RTP presents the transportation vision for this region through the year 2035 and provides a long-term investment framework for addressing the region's transportation and related challenges. The Plan is the culmination of a multi-year effort focusing on maintaining and improving the transportation system through a balanced approach that considers system preservation, system operation and management, improved coordination between land-use decisions and transportation investments, and strategic expansion of the system to accommodate future growth.

Leadership, vision, and progress are three main components of the Southern California Association of Government's (SCAG) Mission Statement that apply to the RTP development process. In demonstrating a commitment to leadership, SCAG identified regional goals that reflect a balanced approach to transportation planning and decision-making. In providing a vision, the SCAG Regional Council adopted policies to guide the development of the RTP and identified transportation priorities for the region. Lastly and most importantly, in its commitment to demonstrate progress, SCAG continues to rely extensively on performance measurement as a means to identify the most beneficial investments for the region (see Table 1). Together, these elements contribute to a strong and focused RTP.

TABLE 1 RTP GOALS AND RELATED PERFORMANCE OUTCOMES

RTP Goals	Mobility	Accessibility	Reliability	Productivity	Safety	Sustainability	Preservation	Cost-Effectiveness	Environmental	Environmental Justice
Maximize mobility and accessibility for all people and goods in the region	✓	✓						✓		✓
Ensure travel safety and reliability for all people and goods in the region	✓		✓		✓					
Preserve and ensure a sustainable regional transportation system						✓	✓		✓	✓
Maximize the productivity of our transportation system	✓			✓						
Protect the environment, improve air quality and promote energy efficiency						✓			✓	✓
Encourage land use and growth patterns that complement our transportation investments and improve the cost-effectiveness of expenditures	✓	✓							✓	
Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies*										

* SCAG does not yet have an agreed-upon security performance measure; therefore, it is not included in this table.

This forward-looking Plan consists of two sections: a financially constrained plan and a strategic plan. While the constrained plan includes strategies that have committed, available, or reasonably available revenue sources, the stra-



tegic plan identifies further needs that require further study and consensus building before difficult decisions can be made as to whether the region is willing to commit funds to include them in a future RTP's constrained plan.

Transportation Planning Challenges

The SCAG Region is one of the largest and most complex metropolitan areas in the nation, and its transportation challenges are equally large and complex. Growth trends and travel patterns in the SCAG Region pose difficult challenges for our multimodal transportation system.

THE SHAPE AND PATTERN OF FUTURE GROWTH

Southern California is running out of land to support low-density future growth. The ocean and mountains pose natural barriers to development. Environmentally sensitive areas, such as coastal wetlands and natural habitat areas, hem in the region and dot the urbanized area. A significant amount of land is also owned by the state and federal governments for the public benefit and is off limits to development. The centrifugal force of growth continues to push the development footprint of the urbanized area outward. At the same time, pushing back on dispersed development are natural barriers, financial constraints to pay for outward expansion, and public resistance to unsustainable "leap frog" growth into green fields and sensitive habitat areas. Nearly all natural locations for urban development have been consumed, leaving us with hard choices about how we are to grow and change to meet the demands of the future.

The SCAG Region is the second-most populated metropolitan area in the United States. Nearly one-half of all Californians live in the SCAG Region, and 1 in 17 people living in the entire United States resides here. By July 1, 2007, the region's population had reached 18.6 million residents, having grown by 2 million residents (12 percent) from just seven years ago. Furthermore, the region saw greater population growth between 2000 and 2007 (2 million residents) than that which occurred throughout the 1990s (1.9 million residents). By the year 2035, the region is projected to be home to 24 million residents.

As the region grows, the average person will be older due to aging "baby boomers," and Hispanics will become the majority ethnic group. These shifting demographic patterns will influence future travel behavior as the elderly tend to travel less and recent immigrants tend to use public transportation more than other population groups.

MOBILITY CHALLENGES

The projected growth is expected to place even greater demands on the transportation system. The SCAG Region is served by an extensive multimodal transportation system addressing all aspects of travel in the region, including commuters; shoppers; public transit patrons; truckers delivering goods both regionally and locally, such as groceries to the local supermarkets; as well as fire, police, and other emergency personnel. The roadway and freight rail networks serve the largest maritime ports system in the United States (the Ports of Long Beach, Los Angeles, and Hueneme) and a number of large airports, including the fifth-largest airport in the world (Los Angeles International Air-

port—LAX). But as impressive as this system may seem, it has not kept pace with population growth and transportation demand.

Although the region's population has more than doubled since 1970, expenditures on the roadway system have actually decreased significantly since then. As a result, traffic delays have nearly tripled over the last twenty years, and 5.7 million person-hours are lost each day to traffic delays. Additionally, traffic bottlenecks (caused by merges, weaves, lane drops, stalls, accidents, and other factors) result in reduced roadway productivity. This "lost" capacity in the AM peak period, attributable to a large extent to non-recurring incidents such as accidents, weather conditions, stalled vehicles, etc., could have the effect of the loss of approximately 286 lane-miles of freeway capacity when it is needed the most. The cost of physically adding this lost capacity by widening existing facilities would exceed $4 billion.

Beginning in the 1980s, a major shift occurred away from building roadways and into transit projects and services. Between 2000 and 2005, regional transit use increased by more than 16 percent, and in 2005, our region reached the highest ridership per capita in about 20 years. However, as we are far from having a "complete" public transportation system with frequent service, extensive coverage, and good connectivity, less than 3 percent of all trips and person-miles traveled are taken on public transit.

AGING INFRASTRUCTURE

The need to preserve our transportation assets adequately was brought to the nation's attention after the Minnesota I-35W bridge collapse during the summer of 2007. We must recognize that our roadway network and transit systems developed over the past decades are aging. These regional assets represent hundreds of billions of dollars of investments that must be protected in order to serve us and future generations. Without these assets, or even a portion of these assets, the region's mobility would be significantly compromised.

Unfortunately, our region's roadways, especially the State Highway System, owned and operated by Caltrans, have not been maintained adequately due to constrained state and federal funding. Deferred maintenance leads to higher costs. Whereas pavement surface damage requires an investment of $64,000 per lane-mile to bring it to a state of good repair, the costs escalate significantly if these investments are not secured in a timely manner. The costs for minor damage repair escalate more than fivefold to $387,000, and the costs for major damage repair escalate to an astronomical $900,000 per lane-mile.

EXPLOSIVE GROWTH IN GOODS MOVEMENT

The SCAG region's goods movement system serves as the gateway for both international and domestic commerce. Supported in part by its geographical advantages such as deep-water marine ports, highly developed network of highways and railways, availability of transloading facilities, and its large internal market, goods movement is the fastest-growing segment of the region's transportation sector. Every state in the nation receives goods that pass through Southern California, and the region is a cornerstone of the nation's global competitiveness.

The San Pedro Bay Ports, which include the Los Angeles and Long Beach Ports, currently handle approximately 40 percent of the volume imported into the country and approximately 24 percent of the nation's exports, and one out of every seven jobs in Southern California depends on this trade. Container volume processed by the San Pedro Bay Ports grew by almost 60 percent in volume between the years 2000 and 2006, and is expected to nearly triple by 2030.

As the only deep-water port between Los Angeles and San Francisco, the Port of Hueneme in Ventura County is a major shipping point for automobiles, fresh fruit, and produce. Approximately $7 billion in cargo traverses through this Port annually, and trade-related activity generated by the Port contributes significantly to the local economy.

Cross-border trade activity also contributes to the region's international trade growth, with the growth in Mexico's manufacturing industry increasing truck trips through Calexico East in Imperial County by 77 percent between 1994 and 2005.

More than 75 percent of the containers processed by the ports in 2006 and 2007 involved a truck trip within the SCAG Region, either to a rail intermodal facility, a warehouse, or a transload facility. These trucks contribute to the existing congestion in the region and will contribute to future congestion even more, as the number of trucks is projected to more than double for several major freeways by 2030.

Recent projections included in SCAG's Inland Empire Railroad Main Line Study suggest that the number of freight trains on most Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) lines will more than double between 2000 and 2025 in response to a tripling of container volume at the San Pedro Bay Ports. Freight rail poses serious quality-of-life issues for many communities. Some towns and cities witness 100 trains per day that literally split their communities into two sections for extended periods of time.

AVIATION CAPACITY AND GROUND ACCESS CONSTRAINTS

The SCAG Region supports the nation's largest regional airport system in terms of number of airports and aircraft operations, operating in a very complex airspace environment. These airports support both growing passenger and freight movement, and there are significant challenges in meeting the future airport capacity needs of Southern California. Work on SCAG's 2004 RTP concluded that an Aviation Decentralization Strategy is needed to meet the forecast doubling of air passenger demand by 2030, from the current 90 million annual passengers (MAP) to 170 MAP (according to the 2004 RTP). This is because the four urban air carrier airports in Los Angeles and Orange Counties are all highly constrained. Their collective acreage amounts to 5,540 acres, which is less than 17 percent of the 34,000 acres of Denver International, and less than the 7,700 acres of Chicago O'Hare. At 3,500 acres, LAX is a very small international airport despite being the third-busiest airport in the country and fifth-busiest in the world in terms of passengers served. All of these urban airports have little room to expand because of severe encroachment by surrounding communities.

AIR QUALITY, CLIMATE CHANGE, AND ENERGY CHALLENGES

The SCAG Region continues to have the worst air quality in the nation despite improvements gained in the last two decades. The recently documented health impacts of air pollution on people living in the South Coast Air Basin are staggering. Of all the people nationwide who are exposed to PM2.5 levels that exceed the federal health-based standard, 52 percent live here. Of all the people statewide who are exposed to these levels, 82 percent live here. This is estimated to result in 5,400 premature deaths and 980,000 lost work days per year.[1]

Much of the region continues to exceed the National Ambient Air Quality Standards (NAAQS) identified in the Clean Air Act. Most of the SCAG Region is classified as non-attainment areas for some criteria pollutants. Further, as demonstrated by the recent Air Quality Management Plan (AQMP)/State Implementation Plan (SIP) efforts of local air districts and the Air Resources Board (ARB), the region's efforts to attain the NAAQS continue to be challenging, as the South Coast Air Basin, the Ventura County portion of the South Central Coast Air Basin, the Western Mojave Air Basin, and the Riverside County portion (Coachella) and the Imperial County portion of the Salton Sea Air Basin will all be "bumping up" to worse ozone non-attainment designations since they cannot achieve the NAAQS in the time previously assumed. Further, the attainment plan to meet the ozone standard in the South Coast Air Basin includes undefined long-term ("black box") measures of approximately 200 tons per day of nitrogen oxides (NOx), which is a daunting amount of as-yet-unidentified emission reductions. Of additional concern are the upcoming 24-hour PM2.5 standards, which will require even greater reductions as well as possibly more stringent ozone standards. Consequently, the ARB, South Coast Air Quality Management District (SCAQMD), and SCAG are committed to producing a white paper that identifies strategies to address the shortfall issues. Furthermore, there are strategies and programs in this Plan that will be incorporated into the white paper.

[1] Personal Communication, Richard Bode, California Air Resources Board, 2007.

In addition to the aforementioned challenges, efforts to reduce greenhouse gases (GHG) will present another tremendous challenge to the transportation sector. Transportation is the largest source of GHG emissions in California, representing 38 percent of emissions, and emissions from the transportation sector have grown more rapidly than from other sources over the past ten years.[2] California is the second-largest emitter of GHG emissions in the United States and the twelfth-largest emitter in the world, exceeding most nations.

At the same time, environmental and geopolitical factors are causing energy experts to question the long-term viability of a fossil fuel–based energy future. Travel demand forecasts generally assume that the future will include an abundant and relatively inexpensive supply of transportation fuels. If transportation fuel prices continue to increase, it would have a ripple effect on numerous areas including construction costs, gas tax revenue, travel and aviation demand, air emissions, mode choice and growth patterns. One area of uncertainty is how commuters may respond to higher gasoline prices. For example, a recent study suggests that with a ten percent increase in the gas price, there is a less than one percent change in gas consumption, while other data show that an increase in gas prices coincides with an increase in transit ridership. In addition, growth patterns may alter future demand for transportation fuels. Mixed land uses (i.e., residential developments near work places, restaurants, and shopping centers) with access to public transportation have been shown to save consumers over 500 gallons of gasoline per year.[3] Energy uncertainty requires serious consideration and further study.

TRANSPORTATION FINANCE CHALLENGES

While this region does not lack the creativity and resolve to develop innovative solutions to our problems, we continue to face shortfalls in transportation funding. As the critical factor that often determines whether beneficial projects can be implemented, transportation finance is perhaps the region's most imminent challenge. The following briefly describes current and projected challenges that are likely to impact transportation revenues within the 2008 RTP time frame.



Over the past four decades, transportation revenues (from gasoline taxes collected per gallon) in California have not kept pace with the state's ever-evolving demographic characteristics. Indicators such as vehicle miles traveled, population, and personal income growth have all outpaced the rate of transportation revenue growth. In addition, gas taxes are collected in cents per gallon. Without periodic adjustment or indexing, these funds will not keep pace with needs. Although the passage and recent renewal of local "self-help" transportation sales taxes have greatly improved funding for transportation, gasoline tax revenues continue to decline in value due to inflation.

The viability of the State Highway Account also remains a critical issue. The state's gasoline tax revenues are now exclusively dedicated to funding the

[2] United States Department of Transportation, Federal Highway Administration. Transportation and Global Climate Change: A Review and Analysis of the Literature. (June 1998.) DOT-T-97-03.

[3] Victoria Transport Policy Institute. Transportation Demand Management Encyclopedia.

needs of the State Highway Operation and Protection Program (SHOPP)—at a level, however, that is considerably less than actual needs. Continued underinvestment in the rehabilitation and maintenance needs of the state highway system has serious ramifications—rapidly increasing the number of distressed lane-miles on the state highway system and eroding the condition of the state's bridges. In recent years, transportation has relied heavily on the State General Fund to pay for capacity-enhancing projects. Reliance on the State General Fund means that transportation funding is subject to the state's annual budget process, which can be lengthy and unpredictable.

The need to establish a reliable and sustainable transportation funding source is even stronger, as the Federal Highway Trust Fund may not have enough resources to meet all of its obligations by the end of the decade. Expenditures authorized under SAFETEA-LU have outstripped revenues generated by the federal per-gallon gasoline tax. Accordingly, the viability of the Highway Trust Fund will be a critical issue in the discussions for the next round of the federal transportation reauthorization legislation, which will start in 2009.

Finally, over the last four years, construction costs in California and the nation have increased at an unprecedented rate and much faster than general inflation. The recent run-up in construction prices is due to a variety of factors, including a residential and commercial building boom as well as higher demand for construction materials in developing countries, most notably, China. Although these trends are likely to fluctuate, they have caused many transportation projects to exceed their budgets in the short term and made long-term project cost forecasting uncertain.

Transportation Strategy

SECURITY AND SAFETY FIRST

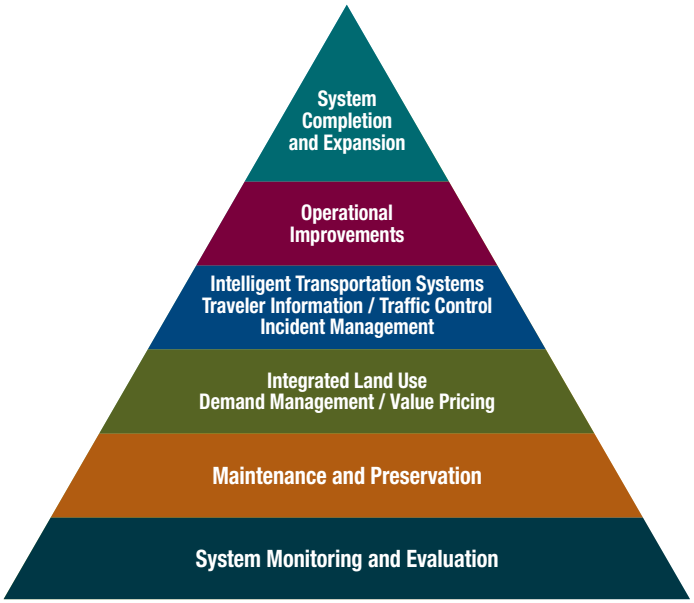
The SCAG Region is vulnerable to many types of catastrophic events including earthquakes, floods, fires, hazardous material incidents, dam failures, civil unrest, transportation accidents, tsunamis and terrorism. Through hard experience, California has in place an emergency and response structure designed to be innovative for the different locations and types of emergencies. There are many agencies that will participate in the response to a disastrous event and ensure that their jurisdictions are prepared to respond to these hazards. This Plan details nine measures that SCAG, as a planning agency, will undertake to enhance the region's ability to achieve and sustain at-risk target levels of capability to prevent, protect against, respond to, and recover from major human-caused or natural events in order to minimize the threat and impact to lives, property, and the region.

The mantra, "Safety First," applies to our transportation system no less than to any other sector of our region. When examined historically, fatal and injury collisions (rate per million vehicle miles traveled) have steadily decreased in California since the 1930s. As SCAG and Caltrans both recognize the continuation of this positive trend as a priority, in 2007, the region fully funded highway collision reduction and emergency response needs, estimated at $317 million and $110 million, respectively. In addition, this Plan forecasts expenditures of $10 billion for safety-related projects and services. Furthermore, in 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) required that each state develop a Strategic Highway Safety Plan (SHSP), which this RTP must be and is consistent with. These actions emphasize the level of collaboration among SCAG, Caltrans, and its stakeholders to examine safety on a system basis so that the region can use all the tools available to decrease traffic injuries and fatalities.

MANAGING OUR TRANSPORTATION SYSTEM WISELY

Since our challenges are multifaceted, our approach to tackling them must be as well. The region recognizes that maintaining and improving mobility will no longer depend solely on expanding its transportation system. Instead, an integrated approach is needed to maximize mobility. State transportation stakeholders have developed a tiered approach based on the idea that transportation investments would have more impact if they were prioritized strategically. Represented by the pyramid below, this approach frames the following discussion.

FIGURE 1 MOBILITY PYRAMID



SYSTEM MONITORING AND EVALUATION

First, it is imperative that we understand the problem in order to fix it. We must have an in-depth understanding of how our system performs and why it performs that way so that we can identify the optimal mix of strategies and projects that yield the highest returns on the region's investments. The base of the mobility pyramid, entitled "System Monitoring and Evaluation," is the foundation of sound system management. SCAG has developed performance measures to improve data collection and to track and monitor the progress of the transportation system so that the region can make informed decisions regarding transportation investments. For example, the Freeway Performance Measurement System (PeMS), developed by UC Berkeley, Caltrans, and the California Partners for Advanced Transit and Highways (PATH), has the ability to measure freeway speeds, delay, and reliability for the regional freeway system. Additionally, transportation professionals and decision-makers have recently committed to improving the region's ability to properly fund the investments needed to comprehensively monitor and evaluate system performance. These investments include detection, closed-circuit television systems, bus global positioning systems, and automatic ridership counting systems. Although funding is modest for these activities, they lead to more informed decisions.

MAINTENANCE AND PRESERVATION

Over the decades, the region has invested hundreds of billions of dollars in our multimodal transportation system. Preserving these assets is a critical priority, especially as preservation needs have been historically underfunded in our region. On top of existing funding for preservation and maintenance, our highway system needs an additional $30 billion through 2035, and our arterial and transit system needs another $10 billion.

Recognizing that every dollar expended today toward maintenance and preservation will save much more in the future, this Plan commits $8 billion of new funding to preservation.

INTEGRATED LAND USE AND DEMAND MANAGEMENT

Integrated Growth Forecast

The Baseline Growth Forecast sets the stage for a future regional growth scenario, as it ties housing to transportation planning, considering both needs simultaneously in communities throughout the region. This approach ensures that the resulting assumptions are consistent with planned transportation infrastructure. Based on a combination of recent and past trends, reasonable key technical assumptions, and existing and new local policy options, the Baseline Growth Forecast provides the basis for developing the land use assumptions at the regional and small-area levels which build the 2008 RTP Plan Alternative.



Advisory Land Use Policies and Strategies

The 2008 RTP Plan Alternative incorporates the Baseline Growth Forecast and the approved transportation network. However, in the rapidly growing SCAG Region, these trends could be tempered, and in some cases bolstered, by policies and strategies designed to improve future travel patterns and vehicle emissions. In response, SCAG adopted a set of advisory land use policies and strategies for future regional planning efforts and for localities to consider as they accommodate future growth. These policies and strategies were founded upon the principles developed through the regional growth visioning efforts begun in 2001.

- Identify regional strategic areas for infill and investment
- Structure the plan on a three-tiered system of centers development
- Develop "complete communities"
- Develop nodes on a corridor
- Plan for additional housing and jobs near transit
- Plan for a changing demand in types of housing
- Continue to protect stable existing single-family areas
- Ensure adequate access to open space and preservation of habitat
- Incorporate local input and feedback on future growth

Travel Demand Management (TDM)

In an effort to address travel demand, TDM strategies are designed to influence an individual's travel behavior by making alternatives to the single-occupant automobile more attractive, especially during peak commute periods, or by enacting regulatory strategies. Some examples of TDM strategies are carpools and vanpools, public transit, non-motorized modes, congestion pricing, and providing the public with reliable and timely traveler information.

In total, this Plan dedicates over $1.3 billion to TDM investments.

Increasing Rideshare (Carpool and Vanpool)

The SCAG Region continues to invest heavily in High-Occupancy Vehicle (HOV) infrastructure that provides incentives for commuters to share rides with others. While HOV utilization is growing over time, the percent of total travelers using carpools and vanpools is not. SCAG and its partners will strengthen their efforts to encourage this efficient mode, which reduces travel time and improves air quality.

Increasing Work at Home

Increasing the number of workers who work at home (self-employed, home-based business owners) or who telework/telecommute (wage and salary employees conducting some or all of their work from home) decreases home-based work trips, vehicle-miles of travel, congestion, and vehicle emissions. National and regional surveys of those who telecommute indicate that it is a lack of support and trust from "management," rather than the provision of equipment or the desire of workers to telecommute, that hampers the growth of telecommuting. Therefore, this Plan recommends formalizing and

expanding partnerships among public- and private-sector stakeholders, and to promote telecommuting to increase opportunities for workers regionally to telecommute in lieu of daily commuting.

Non-Motorized Transportation

Bicycling and walking play an important role in our transportation system. According to the 2001 National Household Travel Survey, 50 percent of all trips made nationwide in urban areas were shorter than 3 miles, and 28 percent of all trips were under 1 mile. These trips are ideal for biking, walking, and transit or a combination of those modes of travel.

Regionwide, however, our average commute distance to work is 19.2 miles, too far for many bicyclists and all pedestrians. However, the integration between bicycle and transit nodes offers the opportunity to extend the commuting range of bicyclists. Bicycle transportation infrastructure has a role in regional mobility and air quality improvements. Every automobile driver that switches to an alternative transportation choice (walking, bicycling, using transit) reduces air pollution, congestion, the need for increasing roadway capacity, and improves public health.

Bicycle and pedestrian improvements are included as part of many larger street maintenance and construction projects, and should always be included in general plan updates, with which SCAG can assist in the development through the Compass Blueprint Program. These investments and the supporting policies all aim to maximize the benefits of this efficient mode of transportation. In addition, this Plan supports several policies that aim to work with local governments and increase the safety, convenience, and attractiveness of bicycling and walking as modes of travel.

The RTP allocates over $1.8 billion for non-motorized transportation.

MAXIMIZING TRANSPORTATION SYSTEM PRODUCTIVITY

Beyond managing our travel demand, this region needs to invest in maximizing the productivity of our existing system and increase its efficiency. The region has built a vast and expensive transportation system, which can be tweaked and modernized to carry more people and goods in a day or during peak commute conditions. Such investments include implementing advanced traffic control strategies such as signal coordination and ramp metering, improved incident management, and smaller physical infrastructure modifications such as auxiliary lanes.

Recognizing that funding productivity improvements provides a higher return on investments than most other transportation projects, this Plan allocates an additional $2 billion, representing 20 percent of the region's operations improvement shortfall. As these allocations are programmed and implemented, SCAG hopes that the benefits will become apparent to decision-makers and the public, and that additional funding can be secured to address the remaining shortfall.

Strategic Transit Service Policies

In an effort to maximize transit productivity, this Plan calls upon regional transit operators to address significant challenges to achieve better operational efficiency, maintain a discipline of cost recovery through a consistent fare policy, embrace the use of performance metrics to better serve their existing customer base, and attract new transit users. The Plan encourages the regional transit operators to work cooperatively to offer complementary services, with ease of transfer between modes and operators. It further encourages utilization of new intelligent transportation system (ITS) technologies that measure system performance and offer their customers reliable "on-time" performance and real-time information.

SYSTEM COMPLETION AND EXPANSION

Beyond the preceding strategies and improvements that have been evaluated thus far, the past and future growth in transportation demand calls for the expansion of our existing transportation system. As such, more than half of the available transportation revenues in the region are dedicated to the completion and expansion of our people and goods movement transportation systems.



Highway Improvements

Major categories of highway improvements included in this Plan are HOV lanes and connectors, mixed-flow (or general purpose) lanes, toll facilities and High-Occupancy Toll (HOT) lanes, and strategic arterial improvements. A significant number of system expansion projects have already been committed through SCAG's Regional Transportation Improvement Program (RTIP) for the highway network. These priority projects close critical gaps in the system, relieve significant bottlenecks, and address inter-county travel needs.

HOV Gap Closures and Connectors

Southern California has invested heavily in HOV lanes, producing one of the nation's most comprehensive HOV networks and highest rideshare rates. Several experiments involving HOV lanes are being conducted throughout the region in an effort to improve the functionality of this already-proven TDM strategy. In 2007, the first continuous-access HOV lanes opened on SR-22 in Orange County. Since the HOV lane system is a regional network, operations should be coordinated across jurisdictional boundaries to optimize performance and minimize confusion. SCAG supports further study and evaluation of these proposed operational changes to the HOV lane system to fully understand the mobility, safety, and air quality impacts, as well as any implications for a proposed regional HOT lane system.

This Plan includes many additional investments to extend the HOV network, strategically close gaps in the HOV network, and construct additional direct freeway-to-freeway connectors to maximize the overall system performance by minimizing weaving conflicts and maintaining travel speeds.

Mixed Flow

Since mixed-flow lanes carry more traffic than any other component of our transportation system, mixed-flow capacity enhancements are also necessary to address traffic bottlenecks and relieve congestion on heavily traveled corridors. This is especially true in areas outside of the urban core where transit service and the HOV network are not fully developed. This Plan includes a variety of mixed-flow lane additions, the majority of which are located outside of Los Angeles County.

Toll and High-Occupancy Toll (HOT) Lane Corridors and Facilities

This Plan also includes the expansion of the existing HOT lane and toll road system in Orange County to address the congested commuter corridor between housing-rich Riverside County and job-rich Orange County. Additionally, improvements to several major corridors in other parts of the region are proposed to be financed by tolls, including the SR-710 Gap Closure and the High Desert Corridor.

Transit

The RTP's Integrated Land Use and Transit policies and strategies work hand in hand to improve mobility and air quality. The investment in new rail and bus transit corridors has spawned investment throughout the region in new housing, retail, and business development at and near transit stations. Since 2003, the region has experienced substantial growth in daily regional transit

trips as transit has become an increasingly integral mode of transportation for the movement of people to and from home, work, school, shopping, and cultural and recreational activities.

This Plan recommends closing critical gaps in the transit system to improve service, and extending routes to serve a greater number of passengers. In addition, the coordination of development in and around transit stations and corridors, improved service reliability and performance, and a highly focused transit capital investment program appear to yield the best results within the budget limitations that the region faces.

Heavy and light rail projects are planned for Los Angeles County, while Orange County focuses on several new bus rapid transit (BRT) corridors. Riverside and San Bernardino Counties are planning a mix of new rail and BRT projects.

Aviation

SCAG's Regional Aviation Decentralization Strategy is very similar to the 2030 decentralized regional aviation system adopted for the 2004 RTP. It respects all legally enforceable policy and physical-capacity constraints at urban airports. It also assumes much more willingness on the part of the airlines to invest in new flights at new and emerging airports, and a package of market and ground access incentives to promote decentralization at underutilized suburban airports.

Airport Ground Access

The Regional Aviation Decentralization Strategy calls for making substantial airport ground access improvements throughout the region, in both the short term and long term.

The short-term program emphasizes relieving immediate bottlenecks around airports through arterial, intersection and interchange improvements, and increasing transit access to airports. To this end, SCAG is working with Los Angeles World Airports (LAWA) on planning and programming a regional system of FlyAways, based on the very successful Van Nuys FlyAway, where passengers park their cars and take a bus to LAX. The locations of the proposed new FlyAways can be optimized by taking advantage of the region's developing HOV and light and heavy rail networks that can provide direct linkages to Ontario and Palmdale as well as LAX. Making seamless HOV and rail connections with enhanced service to those and other suburban airports will also compose SCAG's short- and medium-range airport ground access strategy. The FlyAway, HOV and rail improvements to the suburban airports will help establish a pattern of decentralization, by attracting a critical mass of passengers and airline service at those emerging airports.

In the long run, however, the region will need a high-speed rail system, discussed below, to reach our adopted air passenger and air cargo forecasts. The high speed, reliability, and predictability of high-speed airport access will be needed to overcome the increasing unpredictable traffic congestion. For example, the Initial Operating Segment (IOS) of SCAG's proposed High-Speed Regional Transport (HSRT) system from West Los Angeles to Ontario will take only 33 minutes to travel from end to end. Therefore, the regional high-speed rail system is an integral component of the 2008 RTP Preferred 2035 regional aviation demand forecast.

High-Speed Regional Transport (HSRT)

SCAG has advanced a vision of regional transport based on high-performance, high-speed, and environmentally sensitive alternatives. An HSRT system has the potential for relieving both airport and freeway congestion in urbanized areas by providing an alternative to the automobile as well as making less-congested airports more accessible to air travelers, and providing alternative capacity for freight movement in the region.

The HSRT system is a long-term vision connecting the region's ports, airports, and urban activity centers. The system can be constructed in multiple stages that can each be financially viable. The financial performance will be enhanced as the system is extended throughout the region and the volume of users increases. The HSRT plan is constructed on three core components: a goods movement/logistics component to connect the San Pedro Bay Ports



with an inland port facility via the high-speed, high-capacity link; an aviation system component to create a direct and reliable link capable of connecting airports and urban centers; and a surface transport system component to link urban activity centers throughout the region.

Another high-speed regional transport project being studied is a magnetically levitated train between Las Vegas and Anaheim by the California-Nevada Super Speed Train Commission (CNSSTC) that would include a critical Anaheim-Ontario segment, which would further the airport decentralization strategy for the region. Also, the California High-Speed Rail Authority (CHSRA) is charged with planning, designing, constructing, and operating a high-speed steel wheels on steel rails train system that would connect Northern and Southern California. This system contains 210 miles planned in the SCAG Region, including a 30-mile segment between Orange County and LA Union Station.

Goods Movement Strategies

To enable the region to handle the dramatic growth in the goods movement sector, the Plan calls for approximately $13 billion in freight rail investments, nearly $18 billion in a freight HSRT system, and over $5 billion in highway investments. These investments integrate air quality mitigation into the goods movement system improvements, yielding substantial air quality benefits and reducing its current and long-term impacts on public health and the environment.

Dedicated Lanes for Clean-Technology Trucks

Over the past several RTP updates, the region has been exploring dedicated truck-lane facilities and continues to refine the concept of such user-supported corridors to improve the flow of goods. More recent effort has focused on adding dedicated truck lanes for clean-technology vehicles along truck-intensive corridors in Southern California. Operationally, such a corridor would be aligned to connect freight-intensive locations such as the Ports, warehousing/distribution center locations, and manufacturing locations. These dedicated facilities would have fewer entrance/egress locations than typical urban interstates to smooth the flow of goods.

This proposal has the potential to relieve many of the negative truck impacts in Southern California such as recurrent delay, pavement deterioration, safety, emissions, and design deficiencies. Dedicated truck lanes would also increase reliability in the freeway system. Despite these benefits, substantial financial constraints as well as environmental impact considerations could hinder project implementation. Recognizing these challenges, the 2008 RTP funds the I-710 segment as the first phase of a comprehensive system that addresses truck-related issues in the region. This segment includes roughly 78 lane-miles (two lanes in each direction) of dedicated lanes for clean-technology trucks along alignments extending from Ocean Blvd. in Long Beach to the intermodal railroad yards in Commerce/Vernon. This represents an investment of over $5 billion.

The region's longer-term strategic vision would include an east-west corridor and the I-15 freeway, serving strategic distribution centers in Barstow. Major corridor studies have already been completed for I-710, SR-60, and I-15. An Environmental Impact Report/Environmental Impact Statement (EIR/EIS) and preliminary engineering are currently underway for the I-710. The techni-

cal analysis for the 2008 RTP assumes the implementation of dedicated lanes accommodating clean-technology vehicles along the I-710 corridor until a preferred alternative is identified by the EIR/EIS.

Regional Freight Rail Investment and Emission-Reduction Package

Freight rail investments consist of additional mainline capacity, grade separations, and locomotive engine upgrades. About half of the rail-related investments are for grade crossing separations, which reduce traffic congestion, improve safety, and reduce pollution. Substantial air quality benefits can be realized by accelerating fleet modernization with cleaner technologies.

The UP and BNSF mainlines east of downtown Los Angeles will reach capacity before the end of the decade and will need to be triple-tracked or even quadruple-tracked in some segments. Investments in this Plan include $3.2 billion in mainline rail capacity improvements, $6.0 billion to build an estimated 131 highway-rail grade separations east of downtown Los Angeles, and a total of $3.8 billion for accelerating upgrades to cleaner diesel locomotive engines—namely, Tier 4 engines.

In March of 2007, the US Environmental Protection Agency (EPA) proposed new standards to reduce emissions from diesel locomotives: Tier 3 and Tier 4 exhaust emission standards for newly built engines with high-efficiency catalytic after-treatment technology. Tier 3 engines will be available in 2009 and the associated estimated reduction in emissions is to less than 50 percent of current conditions. The reduction in emissions from Tier 4 engines is estimated at 90 percent of current conditions. This Plan assumes nearly $2 billion in federal EPA funding to subsidize the deployment of Tier 4 engines in the region.

Alternative Technology–Based Goods Movement/Logistics

The region is also exploring new alternative technology–based systems that can provide greater throughput and reliability with near zero emissions (the emissions would be only those associated with electricity generation). A recent analysis carried out by the IBI Group considered the application of an HSRT system for the movement of containers (logistics and systems technology) to



and from the San Pedro Bay Ports. This container movement system would provide a high-capacity, fast, and efficient method of moving containerized cargo from the Ports to an inland port facility in San Bernardino. The system capitalizes on the inherent savings of multiple uses on a single infrastructure by operating on shared alignments with the HSRT passenger system. The technology permits operation of HSRT freight vehicles on a shared guideway with passenger vehicles even during peak hour service. Freight vehicle trips can be interspersed with passenger trips while still meeting required passenger vehicle headways. Additionally, full utilization of the freight line can be achieved during the passenger system's off-peak hours. The deployment of the HSRT system would create value in associated components which could in turn contribute to the HSRT's total financial performance.

The connection for the HSRT system would begin at the Ports and join up with the IOS[4] at a point just east of the Los Angeles Union Passenger Terminal (LAUPT). This alignment runs north-south and is assumed to follow a route parallel to the I-710/Alameda Corridor. After connecting to the IOS and other segments, the freight-only service would be interspersed with passenger service.

[4] The Initial Operating Segment (IOS) is discussed in further detail in the supplemental HSRT Report and Appendices.

TABLE 2 SUMMARY OF SYSTEM COMPLETION AND EXPANSION PROJECT TYPES

Project Type	Cost
Highway Improvements	**$77.2 billion**
Mixed Flow Lanes and Interchanges/Ramps	$26.2 billion
HOV	$8.3 billion
Toll Lanes	$25.6 billion
Arterial	$17.1 billion
Transit Improvements	**$44.0 billion**
Commuter Rail	$6.2 billion
Heavy Rail	$5.7 billion
Light Rail	$1.7 billion
Bus Rapid Transit	$0.9 billion
Bus	$21.3 billion
Other Transit	$8.2 billion
High-Speed Regional Transport	**$29.1 billion**
Goods Movement Strategies	**$36.4 billion**
Mainline Rail Capacity Improvements	$3.2 billion
Highway-Rail Grade Separations	$6.0 billion
Upgrade to Tier 4 Engines	$3.8 billion
Alternative Technology–Based Goods Movement System	$17.9 billion
Dedicated Lanes for Clean-Technology Trucks	$5.1 billion
Truck Climbing Lanes	$0.4 billion
Total	**$186.7 billion**

Figures reflect investments above current commitments in the Regional Transportation Improvement Program (RTIP).

MITIGATING ENVIRONMENTAL IMPACTS

California law requires SCAG to prepare and certify a Program Environmental Impact Report (PEIR) prior to adopting the RTP. The PEIR evaluates the environmental impacts of the RTP and proposes specific measures to mitigate impacts to the maximum extent feasible. Although this RTP, in and of itself, is a plan to mitigate the transportation-related effects of population growth, such as traffic congestion and poor air quality, because the transportation improvements can result in additional growth, the PEIR goes further by recommending additional environmental mitigation at the program level for those resource areas that would be affected by the Plan (and associated growth) such as land use, open space, biological resources, water and energy. The section below summarizes the mitigation program. A list of all the mitigation measures included in the 2008 RTP PEIR will be included in the Environmental Mitigation Report of the Final 2008 RTP.

The general purpose of the mitigation measures included in the PEIR and summarized below is to identify how to protect the environment, improve air quality, and promote energy efficiency in concert with the proposed transportation improvements and related planning. They provide a framework through which implementing agencies and subregions can address the environmental impacts of RTP projects, while implementing RTP goals and policies. The PEIR provides three different types of mitigation measures. The first type can be implemented by SCAG at the regional level. These measures are generally aimed at gathering additional information that can assist in measuring impacts and determining appropriate mitigation and promoting policies that reduce impacts. The second type of measures are to be implemented at the local level by implementing agencies, and individual cities and counties. These measures can strengthen planning documents to ensure for provision of mitigation in the planning process. The third type of measures are project specific and seek to reduce impacts for the myriad different types of projects anticipated in the region. As a programmatic document, many of the measures in the PEIR refer to performance standards because site-specific conditions are not reasonably evaluated at the programmatic level.

SUMMARY OF THE ENVIRONMENTAL MITIGATION PROGRAM

This Plan discusses mitigation for the following areas:

- Open Space
- Energy
- Air Quality and Climate Change
- Transportation
- Population and Housing
- Land Use
- Aesthetics
- Public Services
- Biological Resources
- Geology, Soils, and Seismicity
- Cultural Resources
- Water Resources
- Hazardous Materials
- Safety and Security
- Noise



Financial Plan

The 2008 RTP financial plan identifies how much money is available to support the region's surface transportation investments including transit, highways, local road improvements, system preservation and demand management goals. It also addresses the need for investment in goods movement infrastructure. Improving ground access in and around major goods movement facilities, and enhancing major highways and railways are critical to maintaining the health of Southern California's economy. The 2008 RTP calls for traditional and non-traditional revenue sources for implementing a program of infrastructure and environmental improvements to keep both freight and people moving.

The 2008 RTP financial plan identifies a number of new revenue sources to provide additional funding beyond existing transportation dollars. The SCAG Region's financially constrained plan includes a core revenue forecast of existing local, state, and federal sources along with new funding sources that are reasonably available over the time horizon of the RTP. The plan also includes action steps to obtain the revenues necessary for implementing the region's transportation vision.

In developing the financial plan, SCAG followed a few basic principles to guide its regional financial forecast:

- Incorporate financial planning documents developed by local county transportation commissions and transit operators in the region where available;
- Ensure consistency with both local and state planning documents;
- Utilize published data sources to evaluate historical trends and augment local forecasts as needed; and
- Recommend new funding sources that target beneficiaries of transportation investments.

REASONABLY AVAILABLE REVENUES

There are several new funding sources that are reasonably expected to be available. These sources will increase the revenues available for the 2008 RTP. The region also expects to leverage innovative financing strategies.

Table 3 presents twelve categories of funding sources and financing techniques that were evaluated for the RTP. They were selected as a result of their use in other areas of the state, the burgeoning potential, historical precedence and likelihood of implementation within the time frame of the 2008 RTP. These funding sources are considered to be reasonably available and are included in the financially constrained plan. For each funding source, SCAG has examined the policy and legal context of implementation and has prepared an estimate of the revenue potential.

TABLE 3 NEW REVENUE SOURCES AND INNOVATIVE FINANCING STRATEGIES (IN NOMINAL DOLLARS, BILLIONS)

Revenue Source	Description	Amount	Actions to Ensure Availability	Responsible Party
Value Capture Strategies	Various techniques assumed: formation of special districts, including Benefit Assessment Districts, Mello-Roos Community Facility Districts, as well as tax increment financing and joint development to provide gap financing for specific transit investments (Gold Line extension, Purple Line extension, and the HSRT system). SCAG also assumes one-time proceeds from the sale of Caltrans-owned property within the SR-710 tunnel vicinity.	$3.7	Pursue necessary approvals for special districts by 2012 (Benefit Assessment Districts require majority approval by property owners; Mello-Roos tax requires two-thirds approval); work with private entities for joint development opportunities; also, work with Caltrans to utilize proceeds from real estate sales to partially fill funding gap for the SR-710 tunnel; pursue legislation to enable sales and to establish escrow account for the proceeds	MPO, transit operators, local jurisdictions, property owners along project corridors, developers, Caltrans
Local Option Sales Tax Extension	Half-cent sales tax measure extension for Imperial County—existing Measure D expires in 2010	$0.8	Local sales tax measure to be placed on ballot by 2010	Imperial County
Highway Tolls (includes toll revenue bond proceeds)	Toll revenues generated from SR-710 tunnel, I-710 dedicated truck lanes, High Desert Corridor, and CETAP Corridor	$22.0	Region was granted authority under AB 1467 (2006) to impose tolls and work with private entities for the financing of goods movement-related facilities including the I-710 dedicated truck lanes; additional state legislative approval needed for SR-710 tunnel	MPO, local county transportation commissions (LACMTA, SANBAG, RCTC), State Legislature
State and Federal Gas Excise Tax Adjustment to Maintain Historical Purchasing Power	Estimate equivalent to additional ten cent per gallon gasoline tax imposed by the state and federal government starting in 2012—extrapolation of historical trend	$17.0	Congressional and state legislative approval	MPO, State Legislature, Congress
Container Fees (includes container fee bond proceeds)	Charge imposed on containerized cargo moving through the Ports of LA/LB (includes railroad user fees for rail capacity improvement program); fees are directly linked to specific goods movement projects	$41.5	Negotiated by Ports, shipping community, regional stakeholders or state legislative approval (upon passage of SB 974 or other legislative effort)	Ports, shippers, goods movement stakeholders (MPO, railroads, local county transportation commissions), State Legislature
Private Equity Participation	Public-Private Partnership arrangement whereby a private entity designs, finances, builds, operates, and maintains a facility under a lease arrangement for a fixed period of time	$4.4	Region was granted authority under AB 1467 (2006) to work with private entities for the financing of freight-related projects; additional state legislative approval needed for SR-710 tunnel	MPO, local county transportation commissions, private consortium, State Legislature

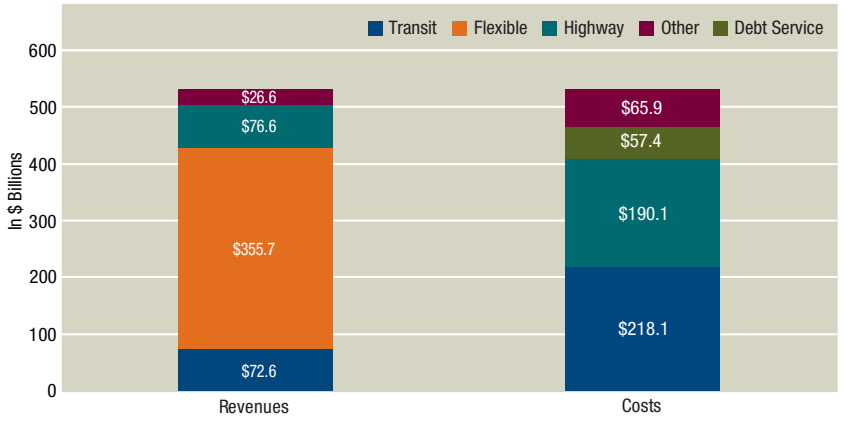
Revenue Source	Description	Amount	Actions to Ensure Availability	Responsible Party
Private Activity Bonds (PAB)	Interest savings from the issuance of tax-exempt private activity bonds	$0.4 (included in container fees)	Work with railroads and other regional stakeholders to receive federal PAB allocation	MPO, freight railroads, local county transportation commissions, US DOT
U.S. Environmental Protection Agency (EPA) funding for clean freight rail technology	EPA subsidies to help mitigate locomotive emissions per the 2007 State Implementation Plan (SIP)	$1.9	Work with railroads, AQMD, ARB and US EPA for federal clean technology funding allocation	MPO, freight railroads, AQMD, ARB, US EPA
Interest Earnings	Interest earnings from toll bond proceeds (High Desert Corridor, CETAP, SR-710 tunnel, and I-710 truck lanes)	$0.4	See Highway Tolls	See Highway Tolls
Riverside County Measure A (Bond Anticipation Notes)	Short-term debt to help fund the CETAP Corridor in anticipation of the sale of Measure A revenue bonds	$1.5	Issuance of debt subject to RCTC Board policy	RCTC
Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan	The TIFIA Loan program provides credit assistance for transportation investments of national/ regional significance; TIFIA loan assumed for the CETAP Corridor	$0.9	Work with USDOT and RCTC to evaluate applicability of the TIFIA loan program for the CETAP Corridor; further feasibility work necessary to assess traffic and revenue potential on CETAP Corridor	MPO, RCTC, USDOT TIFIA Office
HSRT Passenger System (Private Contribution & User Fee)	User-fee supported initiative for HSRT system. Assumes private-sector development: design, finance, build, operate and maintain. See HSRT Report for further details	$26.2	For the IOS: form JPA, finalize development of a comprehensive business plan; work with private entity to ensure commitment	MPO, Private Consortium, local/ regional stakeholders

SUMMARY OF REVENUE SOURCES AND EXPENDITURES

The SCAG Region's financially constrained RTP includes revenues from both the core and reasonably available revenue sources. A summary of these forecasted revenues and expenditures is presented in Figures 3 and 4. As shown in these figures, the SCAG Region's budget over the next 30 years totals an estimated $531.5 billion.

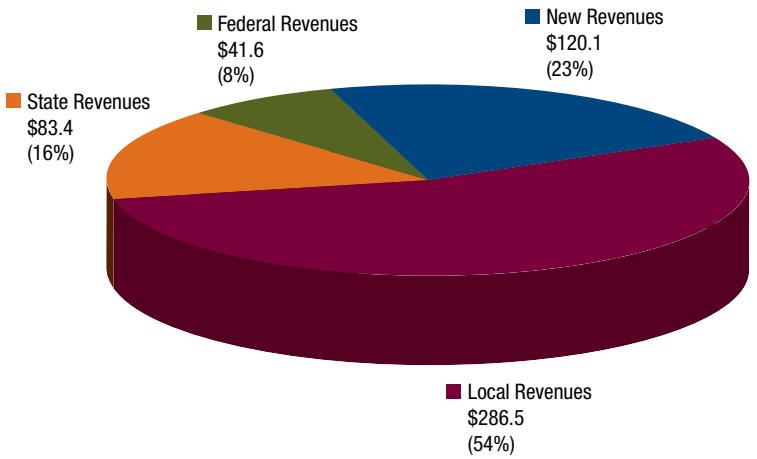
As shown in Figure 2, transit and highway expenditures are roughly comparable at 41 and 36 percent, respectively, of the RTP costs for each category. About 12 percent of costs are attributable to an "other" category, reflecting proposed investments in HSRT systems as well as freight rail capacity and grade separation improvements. Consistent with historical practice, agencies in the region are expected to bond against future revenues to provide additional funding in the early years of the plan. As a result, debt service equal to historical payments and future bonding needs has been included as part of the RTP. Anticipated debt service payments make up 11 percent of total costs.

FIGURE 2 REVENUES COMPARED TO COSTS BY MODE



Note: Numbers may not add due to rounding

FIGURE 3 2008 RTP REVENUE SOURCES $531.5 BILLION (IN NOMINAL DOLLARS) FY2007–FY2036



Note: Numbers may not add due to rounding

FIGURE 4 2008 RTP EXPENDITURE SUMMARY $531.5 BILLION (IN NOMINAL DOLLARS) FY2007–2036

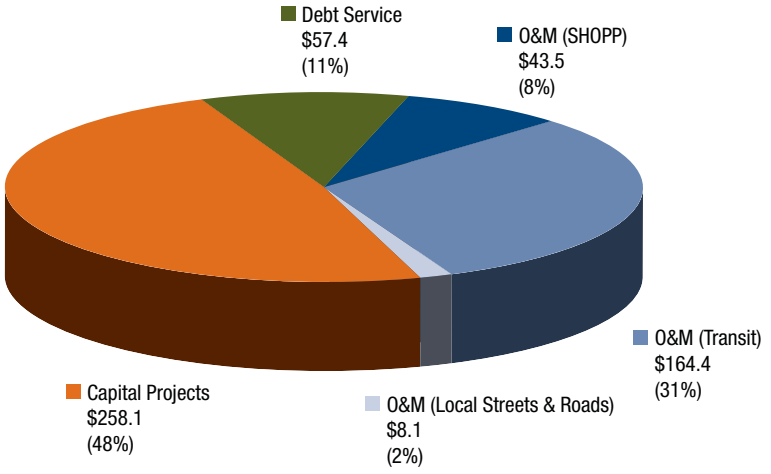


TABLE 4 PERFORMANCE MEASURES

Performance Measure	Measure(s)	Definition	Performance Target	Performance Outcome Summary
Mobility	Speed Delay	Speed – experienced by travelers regardless of mode Delay – excess travel time resulting from the difference between a reference speed and actual speed Delay per capita can be used as a supplemental measure to account for population growth impacts on delay.	Improvement over Base Year	Between the Baseline and Plan scenarios: • Speed increases by 8 percent • Total daily person delay decreases by 16 percent • Daily delay per capita decreases by 16 percent
Accessibility	Percent PM peak period work trips within 45 minutes of home Distribution of work trip travel times		Improvement over Base Year	Between the Base Year and Plan scenarios: • Accessibility increases by 2 percent
Reliability	Percent variation in travel time	Day-to-day change in travel times experienced by travelers. Variability results from accidents, weather, road closures, system problems and other non-recurrent conditions.	Improvement over Base Year	Between the Base Year and Plan scenarios: • Percent variation decreases in both the AM and PM peak periods by approximately 10 percent
Productivity	Percent capacity utilized during peak conditions	Transportation infrastructure capacity and services provided. Roadway Capacity – vehicles per hour per lane by type of facility Transit Capacity – seating capacity by mode	Improvement over Base Year	Between the Base Year and Plan scenarios: • Lost lane-miles decreases in both the AM and PM peak periods by 20 percent
Safety	Accident rates	Measured in accidents per million vehicle-miles by mode for: • Fatalities • Injuries • Property	"0" for all accident types and modes	Between the Base Year and Plan scenarios: • Fatalities, injuries, and property damage per million persons decrease by at least 4 percent
Sustainability	Total cost per capita to sustain system performance at Base Year levels	Focus is on overall performance, including infrastructure condition. Preservation measure is a subset of sustainability.	Improvement over Base Year	Between the Base Year and Plan scenarios: • Reliability, productivity, safety, and preservation improve
Preservation	Maintenance cost per capita to preserve system at Base Year conditions	Focus is on infrastructure condition. Subset of sustainability.	Improvement over Base Year	Between the Base Year and Plan scenarios: • Percent of lane-miles requiring rehabilitation decreases by 14 percent • Percent of bridges requiring rehabilitation decreases by 45 percent
Cost-Effectiveness	Benefit-to-Cost (B/C) Ratio	Ratio of benefits of travel alternatives to the costs of travel including infrastructure, maintenance, travel time, environmental, accident, and vehicle operating costs. This can be used to evaluate impacts of mode split changes resulting from RTP investments.	Improvement over Base Year	The Plan provides $2.21 return for every $1.00 invested.
Environmental	Emissions generated by travel	Measured/forecast emissions include CO, NOX, PM2.5, PM10, SOX, and VOC. CO2 as secondary measure to reflect greenhouse gas emissions.	Meet SIP Emission Budgets & Transportation Conformity requirements	The conformity analysis indicates a positive conformity finding for the Draft Plan based on the draft emission budgets received by the Air Resources Board and the other required tests. The formal conformity finding will be based on the finalized emission budgets analyzed in comparison to the RTP as prepared for adoption.
Environmental Justice	Distribution of benefits and costs Accessibility Environmental Emissions Noise	Share of net benefits and costs by mode, household income, race/ethnicity: • RTP expenditures • Taxes paid (e.g., income, sales & use, gas) • Access to jobs (see "Accessibility") • Travel time savings by mode • Environmental impacts from PEIR	Equitable distribution of benefits and costs	The Plan results in no disproportionate negative impacts on the grounds of income, race, color, or national origin.

Plan Performance

This Plan follows the success of recent RTPs in the use of the following system performance measures to demonstrate the effectiveness of this Plan:

- Mobility
- Accessibility
- Reliability
- Productivity
- Safety
- Sustainability
- Preservation
- Cost-Effectiveness
- Environment
- Environmental Justice

Using quantifiable performance measures, three scenarios are compared to determine the performance of the Plan:

- Base Year 2003 scenario—Existing conditions based on the transportation network as of 2003
- Baseline 2035 scenario—Future conditions in 2035 based on the existing transportation system and near-term constrained projects
- Plan 2035 scenario—Future conditions in 2035 based on the existing transportation system, near-term constrained projects, and long-term constrained projects

In every category, the Plan 2035 scenario shows improvement over the Baseline 2035 scenario (Table 4).

TRANSPORTATION CONFORMITY ANALYSIS

Transportation conformity is required under the federal Clean Air Act (CAA) to ensure that federally supported highway and transit project activities are consistent with ("conform to") the purpose of the SIP.[5] Conformity to the purpose of the SIP means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS. Conformity applies to areas that are designated non-attainment, and those redesignated to attainment after 1990 ("maintenance areas") for the following transportation-related criteria pollutants: ozone, particulate matter (PM2.5 and PM10), carbon monoxide (CO), and nitrogen dioxide (NO2).

This Plan must pass the following tests and analyses to meet the requirements for a positive conformity finding:

- Regional Emission Analysis
- Timely Implementation of Transportation Control Measures (TCMs) Analysis
- Financial Constraint Analysis
- Interagency Consultation and Public Involvement Analysis

Due to recent litigation relative to U.S EPA's Eight-Hour Ozone Phase 2 Rule, EPA has instructed ARB to revise the established method of demonstrating Reasonable Further Progress (RFP) in ozone non-attainment areas that utilize reductions from other areas to demonstrate attainment (e.g., upwind areas). In the SCAG Region, such areas include the Ventura County portion of the South Central Coast Air Basin (SCCAB), the Western Mojave Desert Air Basin (MDAB) (Antelope Valley and a portion of San Bernardino County), and the Coachella Valley portion of the Salton Sea Air Basin (SSAB). Therefore, at this time, there are no AQMPs or SIPs and, thus, no 8-hour ozone transportation

[5] To comply with the CAA in achieving the NAAQS, the ARB develops SIPs for federal non-attainment and maintenance areas. In California, SIP development is a joint effort of the local air agencies and ARB working with federal, state, and local agencies (including the MPOs). Local Air Quality Management Plans (AQMPs) are prepared in response to federal and state requirements.

emission budgets for these areas. SCAG has worked closely with the ARB and EPA to resolve this issue. As agreed upon by ARB and EPA, ARB has adopted Early Progress Plans (i.e., emissions inventories and transportation emission budgets) for areas that need upwind reductions to show RFP. The Early Progress Plans establish the transportation emission budgets while EPA decides how to respond to the RFP issue raised by the litigation. EPA found these emission budgets adequate in April 2008.

In addition, EPA's review of the South Coast ozone and PM2.5 emission budgets raised concerns such that the ARB was required to revise and resubmit the emission budgets to EPA. This requirement dictated that SCAG make appropriate revisions to the conformity analysis to reflect the new emission budgets and re-release the Draft Conformity Report. SCAG staff worked closely with the federal reviewing agencies regarding the emission budget adequacy and conformity approval review process timeline. From these efforts, all agencies confirmed they will expedite their respective reviews to allow for approval of SCAG's conformity finding before the current (2004) RTP conformity finding expires on June 7, 2008.

The conformity analysis indicates a positive conformity finding for the 2008 RTP. The detailed transportation conformity analyses for the 2008 RTP are included in the 2008 RTP Conformity Report.

ENVIRONMENTAL JUSTICE

As a government agency that receives federal funding, SCAG is responsible for implementing Title VI of the Civil Rights Act of 1964 and for conforming to federal Environmental Justice (EJ) principles, policies, and regulations. As part of meeting these requirements, SCAG has performed an EJ analysis to demonstrate responsiveness to potential imbalances caused by the development of the plans, programs, and policies in the 2008 RTP.

SCAG's EJ analysis examined performance measures to determine any disproportionate negative impacts. Performance measures provide a way to quantitatively assess the impact of the Plan. In the development of the Plan, SCAG utilized a number of performance measures designed to assess the overall equity. An overview of the findings is listed below:

- Accessibility to Employment: The results indicate that low-income and minority communities in the region will have higher levels of access to employment via local bus and rail with the 2008 RTP. The results indicate that on a regional scale, no disproportionate impacts are anticipated between income groups as a result of the Plan.
- Accessibility to Parks: All income groups for the whole region will have greater park accessibility due to the infrastructure investments proposed in the 2008 RTP. However, a multi-agency effort must be undertaken in order to further address and remedy the issue of inequity of park access.
- Distribution of Plan Expenditures (Investments): SCAG analyzed the distribution of Plan expenditures based on mode usage information by income quintile. Under the Plan, approximately 28 percent of investments will go to modes predominantly used by the lowest quintile group, while 16 percent will be invested in modes most likely to be used by the highest income category (Quintile V). The current analysis also reveals that under the 2008 RTP, Plan investments will be distributed more equitably on the basis of system usage by ethnic/racial groups. In other words, transportation investments would go to modes likeliest to be used by low-income and minority households.
- Taxes Paid: Overall, tax burdens are anticipated to fall heavily on higher income groups. The lower-income groups (Quintile I and Quintile II), which use bus and light rail as their primary modes of travel, are anticipated to pay 22 percent of taxes.
- Distribution of Transit Travel Time Savings: The results in the 2008 analysis also reveal that the two lowest-income quintiles will pay just over 20 percent of total taxes collected in the region, but will enjoy 65 percent of the local transit time savings. The two highest-income quintiles' share of taxes (60 percent) will exceed the benefits they receive in local transit time savings (16 percent), accounting for only 9 percent of total bus and light rail usage. The findings indicate that transit travel times for

lower-income groups for both work and non-work trips are expected to decrease due to the number of new bus and rail improvements proposed in the 2008 RTP.

- Distribution of Auto Travel Time Savings: The amount of taxes paid by those in Quintile V (36 percent) will exceed their share of benefits (27 percent). The lowest-quintile group will benefit the least, accounting for 12 percent of auto usage and 11 percent of auto travel time savings. Higher-income groups are anticipated to have the most benefit in auto travel time savings, but will also incur the highest taxes.
- Auto Travel Distance Reductions: The lowest quintile group is expected to have the least amount of benefits, accounting for 12 percent of auto usage and travel distance savings. They will also pay the least amount of taxes at 9 percent. The taxes paid by the highest-income group (35 percent) are anticipated to exceed their share of benefits (27 percent). Similar to the findings for Auto Travel Time Savings, higher-income groups are anticipated to have the most benefits because their primary mode of travel will be the automobile.
- Air Pollutant Emissions: Overall, the region as a whole will generally experience an improvement in air quality via reductions in transportation-related emissions due to ongoing mobile source emission controls and investments in the Plan. On a regional scale, the analysis did not reveal any disproportionate impact between ethnic/racial categories.
- Noise: The results in the 2008 RTP analysis indicate that low-income and minority groups will be disproportionately impacted by aviation and highway noise.

Future Connections: The Strategic Plan

The strategies in the Constrained Plan represent the region's collective vision for addressing our transportation needs within the constraints of committed, available, or reasonably available revenue sources. The Strategic Plan goes beyond the Constrained Plan, and includes projects that merit further consideration for inclusion in the Constrained Plan in the future as consensus evolves and funding becomes available.



Supplemental Reports (Appendices)

Additional detail on the various topics discussed in this Plan is contained in 18 standalone reports that also act as the appendices for the 2008 RTP. The reports include all backup data that support assumptions made in the development of the Plan, as well as additional information on areas of interest in regards to our regional transportation system.

I. OVERVIEW



Success in transportation and transportation planning is about making the connections, whether it's connecting from bike to bus or truck to rail relating the travel choices we make with environmental consequences, ensuring that land-use and transportation planning go hand in hand, or more equitably linking our transportation financing mechanisms to those who benefit directly from use of the system. The 2008 RTP connects the SCAG Region to a future vision where innovative solutions address the daunting challenges we face today.

The 2008 RTP presents the transportation vision for this region through the year 2035 and provides a long-term investment framework for addressing the region's transportation and related challenges. The Plan is the culmination of a multi-year effort focusing on maintaining and improving the transportation system through a balanced approach that considers system preservation, system operation and management, improved coordination between land-use decisions and transportation investments, and strategic expansion of the system to accommodate future growth.

The SCAG Region is economically, culturally, and ethnically one of the most diverse metropolitan regions in the world. It has a complex transportation system that includes extensive roadway, transit (bus and rail), and freight rail networks, along with major intermodal, seaport, and airport facilities. Exhibit 1.1 shows the major transportation infrastructure in the SCAG Region. Highlights of our vision for our region and the regional transportation system in 2035, embodied in this document, may be summarized as follows:

- A well-maintained and managed roadway network free of potholes and other roadway hazards
- A transportation system where most of the gaps have been addressed
- A safe, secure, reliable, and equitable public transportation system
- A seamless public transportation system that provides efficient access to jobs, shopping, recreation, education, health care and other activities



- More travel choices in addition to solo driving and public transportation, such as improved access to non-motorized transportation
- More people living closer to job centers and transit corridors and hubs
- Improved air quality for all, and
- A vibrant economy supported by an efficient goods-movement system

The 2008 RTP, built on regional consensus, is flexible and recognizes the unique and complex nature of the region. The 2008 RTP is an update to the 2004 RTP, and it replaces the 2004 RTP in its entirety.

Leadership, Vision, Progress

Leadership, vision and progress are three main components of SCAG's Mission Statement that apply to the Regional Transportation Plan (RTP) development process. In demonstrating a commitment to leadership, the region identified seven goals that reflect a balanced approach to transportation planning and decision-making. In providing a vision, the SCAG Regional Council adopted

policies to guide the development of the RTP and identified transportation priorities for the region. Lastly and most importantly, in its commitment to demonstrate progress, SCAG continues to rely extensively on performance measurement as a means to identify the most beneficial investments for the region. Together, these elements contribute to a strong and focused RTP.

REGIONAL GOALS

The goals of the 2008 RTP have expanded from 2004 to encompass transportation security. These seven goals are in no particular order and demonstrate the need to balance many priorities in the most cost-effective manner.

TABLE 1.1 RTP GOALS

RTP Goals
• Maximize mobility and accessibility for all people and goods in the region
• Ensure travel safety and reliability for all people and goods in the region
• Preserve and ensure a sustainable regional transportation system
• Maximize the productivity of our transportation system
• Protect the environment, improve air quality and promote energy efficiency
• Encourage land use and growth patterns that complement our transportation investments
• Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies

These priorities are identified in the following:

- The region's vast investments in multimodal transportation infrastructure must be protected. This infrastructure is maturing and requires attention and maintenance. The region cannot afford to replace the existing infrastructure and must protect it for future generations.
- A maturing system dictates an increased operational focus that leverages technology to maximize the system's productivity. This same investment will also increase reliability by minimizing the variations of travel time due to incidents, weather, and other factors. The region cannot expand the transportation system significantly, so the existing system must be utilized to its fullest. The vitality of the region's economy is inextricably linked to efficient and reliable transportation. The region must be able to respond to and recover from major human-caused or natural events in order to minimize the threat and impact to lives, property, the transportation network and the regional economy.
- Air quality for the region's residents must be improved and meet federal regulations. Not doing so would undermine the health of our population and risk losing billions of federal funding to the region.
- The investments in the RTP must address travel safety and modal balance; recognize the importance of providing safe travel choices; meet the needs of the transit dependent and the goods movement community; and provide connections among the highway system, ports, and airports.
- The RTP must also integrate land-use policies as a means to influence transportation performance and the economy. Without such integration, transportation needs in the future will significantly outpace the ability to pay for them.
- The RTP must address all these priorities in the most cost-effective manner so that outcomes/benefits can be maximized and so that users get the most for their expenditures.

RTP GUIDING POLICIES

The SCAG Regional Council (RC) adopted five policies to guide the development of the RTP (Table 1.2). These RTP policies, unchanged since 2004, emphasize the importance of tracking the Plan's performance through specific indicators.

TABLE 1.2 RTP POLICIES

	RTP Policies
1	Transportation investments shall be based on SCAG's adopted Regional Performance Indicators.
2	Ensuring safety, adequate maintenance, and efficiency of operations on the existing multi-modal transportation system will be RTP priorities and will be balanced against the need for system expansion investments.
3	RTP land-use and growth strategies that differ from currently expected trends will require a collaborative implementation program that identifies required actions and policies by all affected agencies and subregions.
4	HOV gap closures that significantly increase transit and rideshare usage will be supported and encouraged, subject to Policy #1.
5	Progress monitoring on all aspects of the Plan, including timely implementation of projects, programs, and strategies, will be an important and integral component of the Plan.

PERFORMANCE-BASED PLAN

As with previous RTPs, this is an outcome-/performance-based plan. The first RTP policy requires that performance measures play a critical role in the plan development. Performance measures quantify the outcomes that are important to individuals, businesses, and the region. They quantify regional goals and provide a way to evaluate progress over time. This is SCAG's fourth performance-based RTP. Starting in 1998, SCAG was the first Metropolitan Planning Organization (MPO) to rely extensively on performance measurement as a means to identify the most effective investments for the region. The performance indicators for the 2008 RTP represent an evolution that builds on earlier successes and adds specificity and technical depth to the original indicators.

Assessing the degree to which the impacts of the 2008 RTP investments meet the regional goals requires complex technical analysis. Performance measurement is a critical part of this analysis, and is used for estimating the potential impacts of investments. The same measures will be used to monitor progress in meeting the performance expectations of the RTP. This monitoring will allow the region to correct its course over time as lessons are learned and new trends are established. Performance measures are closely tied to the broader goals to ensure that the implementation of this Plan moves us closer to achieving these goals. Table 1.3 depicts the relationship between the RTP goals and performance measures, while Table 1.4 describes the performance measures in greater detail.

TABLE 1.3 RTP GOALS AND RELATED PERFORMANCE MEASURES

RTP Goals	Mobility	Accessibility	Reliability	Productivity	Safety	Sustainability	Preservation	Cost-Effectiveness	Environmental	Environmental Justice
Maximize mobility and accessibility for all people and goods in the region	✓	✓						✓		✓
Ensure travel safety and reliability for all people and goods in the region	✓		✓		✓					
Preserve and ensure a sustainable regional transportation system						✓	✓		✓	✓
Maximize the productivity of our transportation system	✓			✓						
Protect the environment, improve air quality and promote energy efficiency						✓			✓	✓
Encourage land use and growth patterns that complement our transportation investments and improve the cost-effectiveness of expenditures	✓	✓							✓	
Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies*										

* SCAG does not yet have an agreed-upon security performance measure; therefore, it is not included in this table.

EXHIBIT 1.1 SCAG REGION



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

TABLE 1.4 PERFORMANCE MEASURES

Performance Measure	Measure(s)	Definition	Performance Target	Calculation Data Sources
Mobility	Speed Delay	Speed – experienced by travelers regardless of mode Delay – excess travel time resulting from the difference between a reference speed and actual speed Delay per capita can be used as a supplemental measure to account for population growth impacts on delay.	Improvement over Base Year	Travel demand model outputs AM peak, PM peak, Off-peak, Daily Link speeds, travel times, trips
Accessibility	Percent PM peak period work trips within 45 minutes of home Distribution of work trip travel times		Improvement over Base Year	Travel demand model outputs • PM peak • OD travel times • OD person trips
Reliability	Percent variation in travel time	Day-to-day change in travel times experienced by travelers. Variability results from accidents, weather, road closures, system problems and other non-recurrent conditions.	Improvement over Base Year	Highways – PeMS Transit – National Transit Database or triennial audit reports
Productivity	Percent capacity utilized during peak conditions	Transportation infrastructure capacity and services provided. Roadway Capacity – vehicles per hour per lane by type of facility Transit Capacity – seating capacity by mode	Improvement over Base Year	Highways – PeMS Transit – National Transit Database or triennial audit reports
Safety	Accident rates	Measured in accidents per million vehicle-miles by mode for: • Fatalities • Injuries • Property	"0" for all accident types and modes	Highways – freeway accident rates from Caltrans Transit – National Transit Database or triennial audit reports
Sustainability	Total cost per capita to sustain system performance at Base Year levels	Focus is on overall performance, including infrastructure condition. Preservation measure is a subset of sustainability.	Improvement over Base Year	Subregional submittals Regional population forecast
Preservation	Maintenance cost per capita to preserve system at Base Year conditions	Focus is on infrastructure condition. Subset of sustainability.	Improvement over Base Year	Subregional submittals Regional population forecast
Cost-Effectiveness	Benefit-to-Cost (B/C) Ratio	Ratio of benefits of travel alternatives to the costs of travel including infrastructure, maintenance, travel time, environmental, accident, and vehicle operating costs. This can be used to evaluate impacts of mode split changes resulting from RTP investments.	Improvement over Base Year	Travel demand model outputs Revenue forecasts RTP project expenditures Other cost estimates
Environmental	Emissions generated by travel	Measured/forecast emissions include CO, NOX, PM2.5, PM10, SOX, and VOC. CO2 as secondary measure to reflect greenhouse gas emissions.	Meet SIP Emission Budgets & Transportation Conformity requirements	Travel demand model outputs EMFAC2007
Environmental Justice	Distribution of benefits and costs Accessibility Environmental Emissions Noise	Share of net benefits and costs by mode, household income, race/ethnicity: • RTP expenditures • Taxes paid (e.g., income, sales & use, gas) • Access to jobs (See "Accessibility") • Travel time savings by mode • Environmental impacts from PEIR	Equitable distribution of benefits and costs	Travel demand model outputs Revenue forecasts RTP project expenditures PEIR

WHY UPDATE THE RTP?

SCAG is the federally designated MPO for the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. As the MPO, SCAG develops the RTP and updates it every four years through a continuous, comprehensive and cooperative process. Transportation investments in the SCAG Region that receive state and federal funds or require federal approvals (such as environmental clearance) must be consistent with the RTP and must be included in SCAG's Regional Transportation Improvement Program (RTIP) when ready for funding. As the programming document for funds, the RTIP complements the corresponding years of the RTP. The RTIP is a six-year program and is coordinated with the State Transportation Improvement Program (STIP) every two years. Following are key reasons the RTP should be updated.

REFLECT CURRENT CONDITIONS

As the economy, demographics, finances, and other factors change, SCAG has a responsibility to modify the RTP to reflect the latest information and conditions. Factors that have changed since the 2004 RTP was adopted include:

- New information on population and employment growth
- New or reauthorized transportation funding sources
- 2007 South Coast Air Quality Management Plan (AQMP) and new motor vehicle emission budgets and emission factors
- Rapid increases in construction costs in the past four years, and
- Other shifts in regional priorities determined by SCAG and the county transportation commissions (CTCs)

COMPLY WITH FEDERAL REQUIREMENTS

The Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) was signed into law in August 2005, and expands upon previous planning requirements. The federal requirements for metropolitan transportation plans include the following key provisions:

- An open, inclusive process that ensures public input and considers the needs of those traditionally underserved by the existing system
- A plan horizon period of not less than 20 years into the future
- The most recent assumptions for population, travel and congestion, land use, vehicle fleet mix, employment and economic activity
- A financially constrained plan funded by revenues that are committed, available, or reasonably available over the time frame of the RTP
- Conformity to State Implementation Plans (SIPs) for air quality
- A discussion of potential environmental mitigation activities
- Consistency with state and local planned growth and economic development patterns, and
- Consideration of eight planning factors and strategies, in the local context, that address: economic vitality through global competitiveness, productivity and efficiency; safety; security; accessibility and mobility for people and freight; the environment, energy conservation, and the quality of life; integration and connectivity of the multimodal transportation system; efficient system management and operation; and preservation of the existing transportation system

COMPLY WITH STATE REQUIREMENTS

The state, whose requirements largely mirror the federal requirements, has adopted extensive RTP guidelines. Key state requirements include:

- Compliance with the California Environmental Quality Act (CEQA)
- Consistency with the five-year STIP as incorporated into SCAG's six-year RTIP
- Program-level performance measures that include objective criteria that reflect the goals and objectives of the RTP, and
- A policy element (Chapter 1), an action element (Chapter 3) and a financial element (Chapter 4)

Our Approach

The development of the 2008 RTP is based on a collaborative and bottom-up process involving numerous parties. Each of the six counties in the SCAG Region has a transportation commission or authority, with the exception of Imperial County, where the Imperial Valley Association of Governments (IVAG) serves as the countywide transportation agency. These agencies are charged with implementing countywide transportation planning activities, allocating locally generated transportation revenues and, in some cases, operating transit services.

Additionally, there are 14 subregions within the SCAG Region. These subregional councils of governments (COGs) are groups of neighboring cities and communities (sometimes an entire county) that work together to identify, prioritize and seek transportation funding for needed investments in their respective areas.

The SCAG Region also includes all or part of thirteen air quality non-attainment or maintenance areas in five air basins. Federal law requires that transportation and air quality planning are coordinated in these non-attainment and maintenance areas. The SCAG Region further includes all of Caltrans Districts 7, 8 and 12, and the Imperial County portion of District 11. SCAG develops the RTP primarily in coordination and consultation with the county transportation commissions (CTCs), COGs, transit operators, Caltrans, air districts and other transportation stakeholders. Key stakeholders involved in the development and update of the RTP are identified in Table 1.5.

TABLE 1.5 STAKEHOLDERS IN THE DEVELOPMENT OF THE 2008 RTP

County Transportation Commissions/Agencies
Imperial
Los Angeles
Orange
Riverside
San Bernardino
Ventura
Subregional Councils of Governments (COGs)
Arroyo Verdugo Cities
Coachella Valley Association of Governments
Gateway Cities COG
Imperial Valley Association of Governments
Las Virgenes-Malibu-Conejo COG
City of Los Angeles
North Los Angeles County
Orange County COG
San Bernardino Associated Governments
San Gabriel Valley COG
South Bay Cities COG
Ventura County COG
Western Riverside County COG
Westside Cities COG
Local and County Governments
Other Operators and Implementing Agencies
California Department of Transportation (Caltrans)
Airport Authorities
Port Authorities
Transit/Rail Operators
Transportation Corridor Agencies
Resource/Regulating Agencies
US Department of Transportation - FHWA, FTA, FAA, FRA
US Environmental Protection Agency (EPA)
CA Air Resources Board
CA Environmental Protection Agency (Cal/EPA)
Air Districts
Tribal Governments (See Exhibit 1.2)

EXHIBIT 1.2 FEDERALLY RECOGNIZED TRIBAL GOVERNMENTS IN THE SCAG REGION



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

TECHNICAL APPROACH

The technical approach to the RTP update is depicted in Figure 1.1. The first step in the process, which was initiated over three years ago, starts with the review and update of the basic assumptions in the existing RTP, including the goals and objectives. It is important to validate the basic planning assumptions and to ensure that the goals and objectives still speak to the region's needs, challenges, and aspirations.

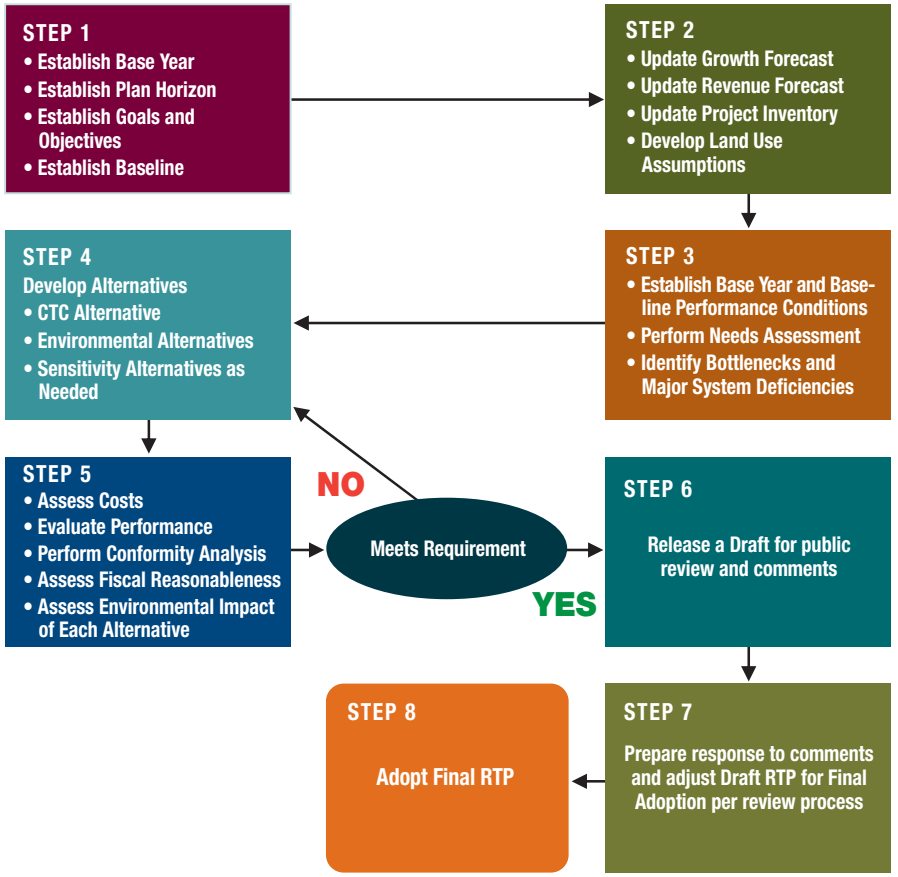
The second step is to ensure that all the data, including growth forecast, revenue forecast, cost information, project scope changes, etc., are updated. It is critical to involve key project sponsors, such as the CTCs, local jurisdictions, Caltrans, and transit operators during this step. Updating and validating the technical data and building the necessary consensus to move forward is a lengthy process.

The third step in the RTP development process involves taking the updated data and reassessing system deficiencies, bottlenecks, and chokepoints in the system to identify system improvement needs.

The fourth step targets improvements and strategies, including growth strategies, in developing alternative scenarios to be considered and tested against performance standards for potential inclusion in the updated Plan. Evaluation of the alternatives is based on a set of performance measures established through a consensus process. Additionally, fiscal reasonableness, transportation conformity and programmatic environmental impacts of the alternatives are also assessed. The best-performing alternative is forwarded as the preferred alternative recommendation to SCAG's policy board if it meets all of the requirements. If it fails to meet any of the requirements, the alternatives are adjusted and reevaluated until a preferred alternative meets all the requirements.

A Draft RTP that documents the preferred alternative as the Plan is then released for public review and comments for a minimum of 45 days. Finally, all comments received and appropriate staff responses are documented prior to finalizing the Plan. The Draft Plan is adjusted if and as needed to address the comments and issues raised during this period before recommending its final adoption as the new RTP for the region.

FIGURE 1.1 RTP UPDATE/DEVELOPMENT PROCESS



PUBLIC PARTICIPATION

A key component of the RTP development process is seeking public participation. Public input helps SCAG prioritize and address transportation needs in

the region. SCAG seeks participation and comment on the RTP from an array of stakeholders, listed in Table 1.6. The RTP is developed in consultation with all interested parties, and SCAG ensures that they have a reasonable opportunity to comment on the contents of the RTP.

TABLE 1.6 NON-GOVERNMENTAL GROUPS FROM WHICH SCAG SEEKS PARTICIPATION AND INPUT

Participatory Non-Governmental Groups
• Citizens
• Public transit users
• Pedestrians
• Users of bicycle transportation facilities
• Transportation agency employees
• Freight shippers
• Providers of freight transportation services
• Private providers of transportation
• Representatives of the disabled
• Nonprofit organizations
• Ethnic and minority groups
• Older and retired persons
• Special-interest nonprofit agencies
• Environmental groups
• Educational institutions
• Women's organizations
• Private sector

To ensure compliance with federal and state requirements, SCAG implements a public involvement process to provide complete information, timely public notice and full public access to key decisions, and to support early and continuing public involvement in developing its regional plans. Since its inception, SCAG has engaged in a public involvement process in developing its regional transportation plans and programs. As a result of changes in SAFETEA-LU in 2005, SCAG has broadened its current participation activities to engage a more extensive group of stakeholders in its planning and programming processes, as reflected in SCAG's Public Participation Plan adopted by the Regional Council in March 2007 and subsequently amended in October 2007. SCAG consulted with a range of interested parties as required by SAFETEA-LU in developing the public participation strategies, procedures and techniques noted herein. SCAG solicited comments and feedback from a diverse number of stakeholders through mailings, email correspondences, workshops, presentations, meetings, telephone communications and website postings.

By using the feedback and comments received on SCAG's Public Participation Plan, SCAG has implemented the following techniques and strategies for RTP outreach:

- Development of an Integrated Inter-Departmental Outreach Team that encourages innovative outreach efforts and is comprised of staff from various divisions, including Communications, Member Relations, and Transportation Planning
- Development of presentation materials for the public in a variety of formats to reach broader audiences: translated materials into languages other than English; developed interactive PowerPoint presentations, fact sheets, surveys, brochures, and maps
- Enhancement of website capabilities that allows SCAG to post all RTP-related information on its website to ensure that it is accessible and transparent to the public. The website is compliant with the 1990 Americans with Disabilities Act.
- Coordination of outreach efforts with other stakeholder organizations to maximize outreach opportunities

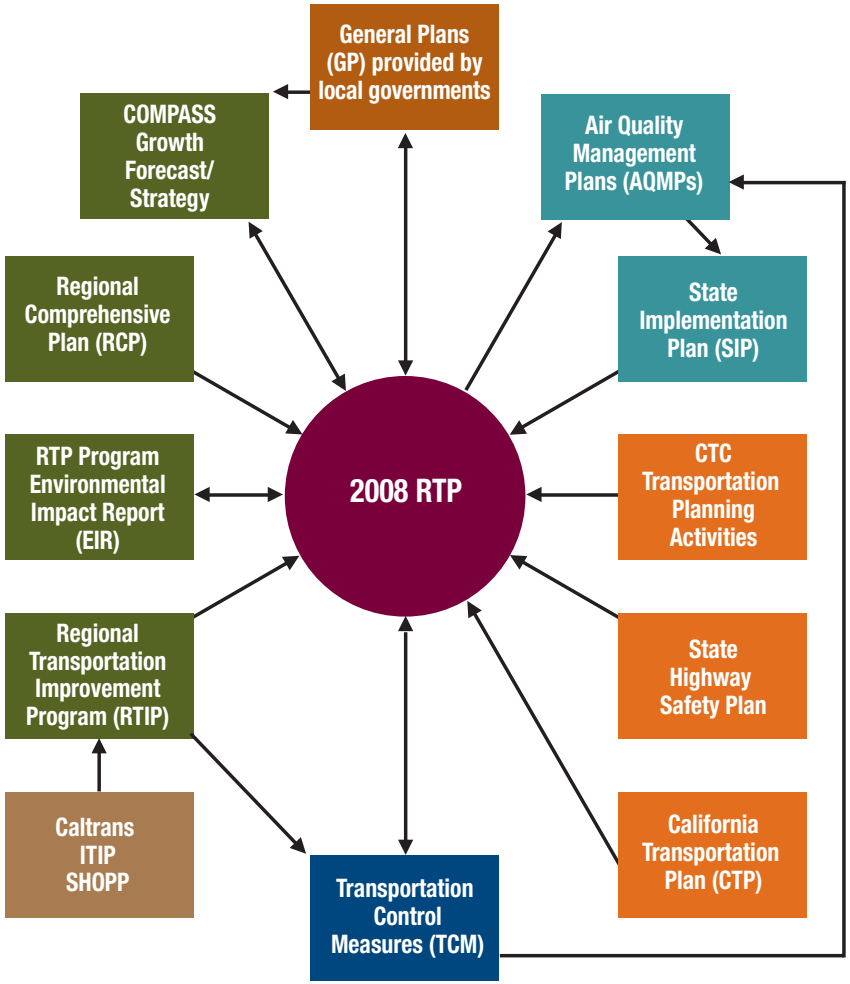
- Development of an outreach schedule that notifies all individuals and groups of activities where SCAG will be presenting the RTP and encourages attendance
- Supporting multiple committees and task forces involving our partners, stakeholders, and interested groups that developed the key components of the Plan
- Holding multiple public workshops before the release of the RTP to allow direct participation by interested parties
- Reaching out to traditionally underrepresented and/or underserved audiences
- Considering comments received in the deliberations regarding proposed plans and programs
- Evaluation of public participation activities to continually improve the outreach process

RTP outreach consists of three phases: Pre-Draft (February 2007 to November 2007), Post-Draft (December 2007 to February/March 2008), and Post-RTP adoption (March/April 2008 to July 2008). SCAG has developed an RTP hotline and email address exclusively for RTP inquiries at 213-236-1960 and RTPinfo@scag.ca.gov.

In addition to these targeted outreach efforts, all regular and special meetings of the RTP task forces, the Transportation and Communications Committee (TCC) and the SCAG RC are publicly noticed and opportunities for public comment are provided. There are currently seven RTP task forces and key transportation subcommittees: Goods Movement, Transportation Finance, High-Speed Regional Transport, Aviation, Plans & Programs Technical Advisory Committee (TAC), Regional Transit Technical Advisory Committee, and the Compass Blueprint Partnership. Also, federally required interagency consultation is done through the monthly meetings of the Transportation Conformity Working Group (TCWG). Specific public comments on the RTP are being recorded and considered by SCAG in the development of the 2008 RTP.

RELATING OTHER PLANS AND PLANNING ACTIVITIES TO THE RTP

FIGURE 1.2 RELATIONSHIP OF PLANNING ACTIVITIES TO THE RTP



A number of SCAG planning activities directly impact the RTP development and update, as depicted in Figure 1.2. The Regional Comprehensive Plan (RCP) is a vision of how the region can balance resource conservation, economic vitality, and quality of life. The RTP Program Environmental Impact Report (PEIR) fulfills legal requirements by identifying potential environmen-


Caltrans photo © Thomas Ritter

tal effects of the RTP Alternatives and identifying ways to mitigate the effects. Lastly, the Regional Transportation Improvement Program (RTIP) is the critical implementation document that provides funding for all major transportation projects in the region for the next six years.

There are several other related planning activities initiated and managed outside of SCAG by partner agencies. Caltrans is responsible for developing and administering the Interregional Transportation Improvement Program (ITIP) and the State Highway Operations and Protection Program (SHOPP). These programs feed directly into SCAG's RTIP and form the basis of the baseline for the RTP. Furthermore, the RTIP is an integral part of the RTP and represents the first six years of the long-range plan. Caltrans is also responsible for developing and updating a statewide Long-Range Transportation Plan, which is a policy document called the California Transportation Plan (CTP). SCAG must consider and incorporate the CTP in the update of the RTP.

The CTCs are responsible for the development and administration of their respective countywide TIPs. Some also choose to develop county-specific long-range transportation plans even though they are not legally required to do so. SCAG must consider and coordinate such activities of the CTCs in developing and updating the RTP.

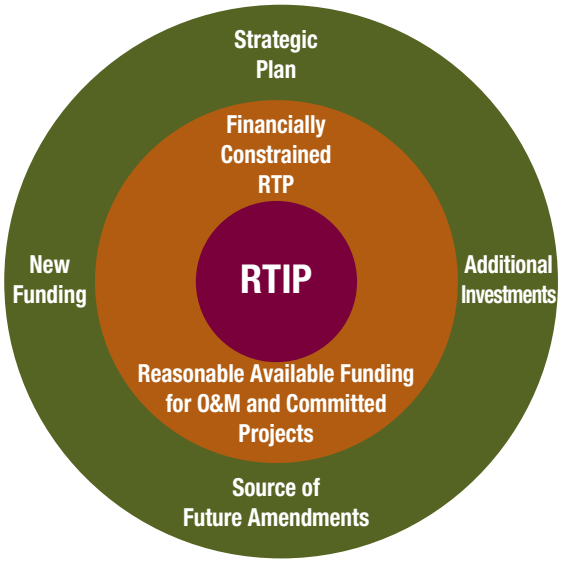
Local governments, including city and county governments, are responsible for preparing, updating and administering their local General Plans. Existing General Plans serve as input to the growth forecast work, and the adopted RTP, in turn, should influence future updates of the General Plans.

Finally, local air districts are responsible for developing Air Quality Management Plans (AQMP) for their respective air districts, which feed into the State Implementation Plan (SIP) and establish allowable emission budgets for criteria pollutants. The RTP serves as the input to the development of the AQMPs, and the emission budgets identified by the SIP through this process, in turn, establish the thresholds with which subsequent conformity analyses must comply.

RTP Framework

Federal planning and conformity rules require that a conforming RTP be financially constrained. It must demonstrate that all projects identified in the constrained plan have adequate funding. A conforming RTP cannot simply be a wish list of projects. If we were to rely on existing funding sources, the fiscal reality is that our region would not have enough money to fund all of our transportation needs. Figure 1.3 depicts the funding framework for this RTP.

FIGURE 1.3 RTP FRAMEWORK



At the core of the Plan is the RTIP, which not only represents the first six years of the Plan, but also represents ongoing operations and maintenance commitments. Every project that seeks federal, state or local funding for implementation must be included in the RTIP. The first ring outside of the core, together with the core, represents the fiscally constrained plan that is used to demonstrate transportation conformity. These projects can be reasonably funded within the planning horizon of the RTP.

The outer ring, called the Strategic Plan, represents projects of merit that currently do not have sufficient funding or regional commitment. They should be considered for funding in the future as it becomes available. Projects typically flow from the outer ring to the core, as funding and commitments for these projects materialize and as they continue to meet the performance criteria established for the Plan.

Another way to look at the outer ring is to view projects in this domain as potential candidates for inclusion in the financially constrained RTP through future amendments. This helps streamline the RTP amendment process. However, given the time horizon of the RTP and the dynamic environment in which transportation projects get funded and implemented, it is foreseeable that there are current projects outside our vision that may warrant inclusion in future RTP amendments. This framework is flexible enough to allow for amending projects into the RTP that are not in the Strategic Plan.

Overview of the Plan

First and foremost, this Plan puts forth a collective vision for the future of our regional transportation system. Our vision is based on a careful analysis of our transportation system, the future growth of our region, our mobility needs, air quality improvement needs, and our need to preserve the environment and mitigate harmful environmental impacts of the proposed transportation improvements.

The Plan carefully and deliberately articulates major challenges associated with our transportation system as well as achieving our vision. Key challenges addressed in the Plan include dramatic growth as well as changes in the characteristics of our demographics, the aging infrastructure, and the unprecedented demand on our goods movement system and our airports. The Plan also articulates our air quality and environmental challenges, and the constraints that they will place on our ability to make necessary improvements to our transportation system, particularly our goods movement infrastructure. On top of all of this, the region will continue to face serious funding shortfalls that will challenge our ability to simply keep our system afloat if we were to do nothing to improve our transportation funding situation.

Given our vision and the challenges, this Plan recognizes that our approach must be balanced, systematic, multimodal, and at the same time targeted to yield the best performance outcomes based on the established set of performance measures. Our integrated system investment approach is depicted by the Mobility Pyramid shown in Figure 3.3. According to this approach, our first priority is to invest in system monitoring and evaluation strategies so that decision-makers can better understand how the system performs and make

well-informed decisions on how to fix our problems. Next, we must preserve our multimodal transportation system, which has cost the region hundreds of billions of dollars to build. The next strategy recognized in this hierarchy is the tremendous potential of coordinating and integrating land use choices with transportation-investment decisions. Effective implementation would not only result in more efficient and effective utilization of available system capacity, but also in the preservation of our environment. We must also make sure that we are getting the most out of our available system by managing our system and our demand better. Such strategies are cost-effective, easy to implement, and environmentally superior to the more capital-intensive system expansion-options. Having monitored and maintained our existing system, and having maximized system efficiency and system productivity through system management, land use coordination, and demand management, the Plan recognizes that targeted system expansion will still be needed to accommodate future growth. Therefore, the Plan proposes a balanced investment approach that would address all modes of transportation, including highways, the public transportation system, the goods movement system, non-motorized transportation, as well as airport ground access improvements.



Finally, while recognizing financial constraints, the Plan puts forth a suite of new and innovative funding strategies that are realistic, practical, and achievable within the time frame of the Plan. The Plan also recognizes that in spite of our best efforts, there simply will not be enough money to implement solutions to all of our transportation needs. The Plan includes a strategic component that identifies projects that cannot be funded at this point, but merit further consideration in future plan updates based on additional studies, funding support, and stakeholder consensus.

II. TRANSPORTATION PLANNING CHALLENGES



The SCAG Region is one of the largest and most complex metropolitan areas in the nation, and its transportation challenges are equally large and complex. This chapter describes growth trends and travel patterns in the SCAG Region and the challenges that these trends and other factors pose for our multimodal transportation system.

The Shape and Pattern of Future Growth

Southern California is running out of land to support low-density future growth. The ocean and mountains pose natural barriers to development. Environmentally sensitive areas, such as coastal wetlands and natural habitat areas, hem in the region and dot the urbanized area. A significant amount of land is also owned by the state and federal governments for the public benefit and is off limits to development.

Freeways provide access to farmland and grazing areas that could be used to accommodate future growth along the east-west axis of the region. There is little access to the north except through mountain passes that are choked with car and truck traffic. The centrifugal force of growth continues to push the development footprint of the urbanized area outward. At the same time, pushing back on dispersed development are natural barriers, financial constraints to pay for outward expansion, and public resistance to unsustainable "leap frog" growth into green fields and sensitive habitat areas. Nearly all natural locations for urban development have been consumed, leaving us with hard choices about how we are to grow and change to meet the demands of the future.

Much of the urbanized area is fighting gridlock as 95 percent or more of the population drives back and forth to work to accomplish the tasks of daily living, and another 3 to 5 percent take transit or walk. Growth management strategies and ballot initiatives are aimed at preserving and protecting prime farm and grazing land from residential development pressures, while preserving historic buildings, single-family neighborhoods and prime industrial land for economic development.

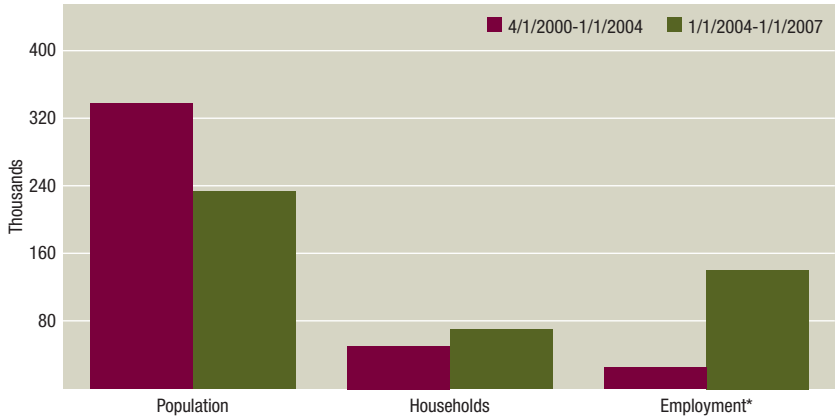
Many are starting to realize that, as large as the region is in total area, it is running out of developable land to support a significantly unbalanced auto-oriented development pattern. There is an increasing need for reinvestment and increased development near public transit, along corridors and in-town, mixed-use urban centers. Southern California has the nation's largest bus ridership and an emerging metro, commuter, and light rail transit network that provides a better balance of transportation choices that can reduce auto travel and support more pedestrian, mixed-use and transit-oriented development.

This section describes the population, employment, and demographic changes that happened in the recent past and may be expected in the SCAG Region over the next 30 years without a change in regional policy. These demographic and economic changes are an integral part of planning the transportation system to ensure that the users' needs are addressed.

POPULATION GROWTH

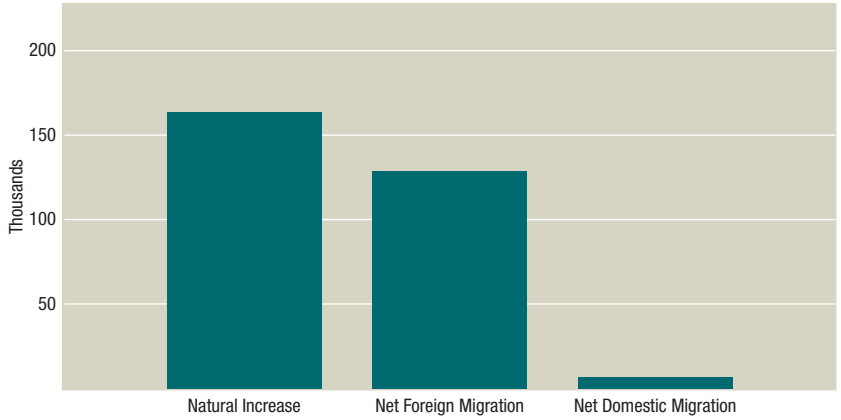
The SCAG Region is the second most populated metropolitan area in the United States. Nearly one-half of all Californians live in the SCAG Region, and 1 in 17 people living in the entire United States resides here. By July 1, 2007, the region's population had reached 18.6 million residents, having grown by 2 million residents (12 percent) from 16.6 million people just seven years ago. The population growth (2 million residents) of the SCAG Region between 2000 and 2007 was higher than the population growth (1.9 million residents) that occurred throughout the 1990s. Figure 2.1 shows the growth pattern of population, households, and employment between 2000 and 2007. Population growth slows down in the middle 2000s (2004-2007), while both household and employment growth are much faster in the middle 2000s than in the early 2000s.

FIGURE 2.1 ANNUAL AVERAGE GROWTH IN POPULATION, EMPLOYMENT, AND HOUSEHOLDS, 2000-2004 AND 2004-2007



Source: California Department of Finance, California Employment Development Department, SCAG Employment Estimates

FIGURE 2.2 COMPONENTS OF ANNUAL POPULATION GROWTH, 2000-2006



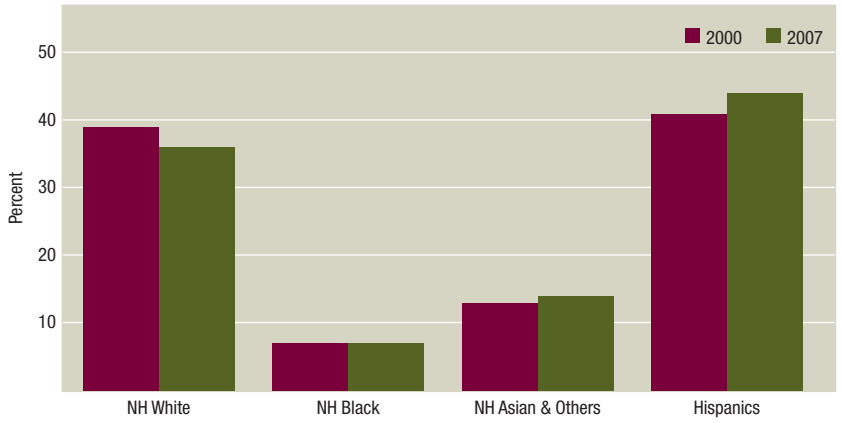
Source: California Department of Finance

Two major sources of population growth since the 2000 Census are natural increase (births minus deaths) and net foreign immigration (people who move here from foreign countries minus those who move away to foreign countries). Natural increase accounted for 55 percent of the population gain in the region. Although the total fertility rate of women of child-bearing ages remains stable in recent years, Hispanic women still maintain a relatively higher total fertility rate. The life expectancy of Southern California residents increased while the death rate decreased.

Net foreign immigration, mostly from Mexico, Central America, and Asia, accounted for 43 percent of the population gain in the region. Foreign immigration, including unauthorized immigrants, was not affected by the region's economic cycle. Southern California is still an attractive destination and a gateway for new immigrants, although international migration to the region has leveled off in recent years.

As of July 1, 2007, there is no racial or ethnic majority in the region. Hispanics constitute 44 percent of the region's population, followed by Non-Hispanic (NH) Whites at 36 percent, NH Asians and Others at 13 percent, and NH Blacks at 7 percent. Since 2000, Hispanics have increased their share of the population by 3 percent, while NH Whites have decreased their share by the same percentage. There has been little change in the share of other racial/ethnic groups between 2000 and 2007. The region is moving toward a Hispanic majority.

FIGURE 2.3 ETHNIC COMPOSITION OF POPULATION, 2000 AND 2007



Source: California Department of Finance

The region shows an aging pattern of population growth between 2000 and 2007. According to California Department of Finance (DOF) estimates, nearly 80 percent of population growth occurred in the age group of 36 years old or older. Age groups of 4-10 years old and 27-35 years old declined by 6 percent and 8 percent, respectively, over the same period. The absolute decline of school-age children and younger adults raises a concern about future school construction needs and labor force in younger workers.

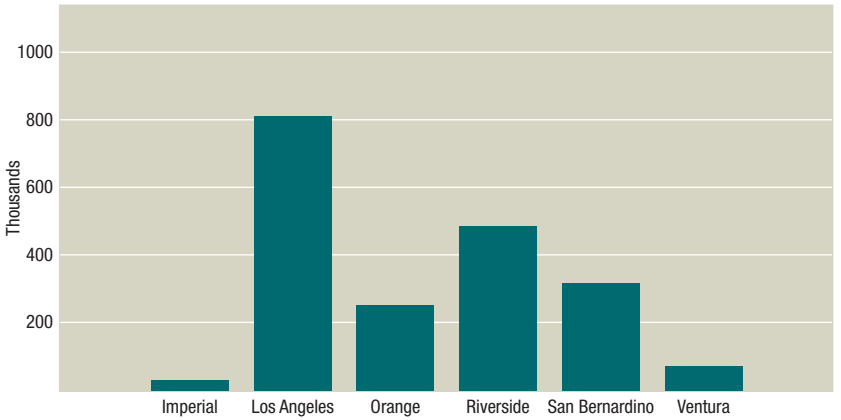
TABLE 2.1 AGE COMPOSITION OF POPULATION, 2000 AND 2007

Age	7/1/2000	7/1/2007	Change	% Change
0-3	1,017,000	1,078,000	62,000	6%
4-10	1,977,000	1,868,000	(109,000)	-6%
11-26	3,885,000	4,528,000	642,000	14%
27-35	2,413,000	2,227,000	(187,000)	-8%
36+	7,333,000	8,860,000	1,526,000	17%
Total	16,626,000	18,560,000	1,934,000	12%

Source: SCAG Baseline Growth Forecast

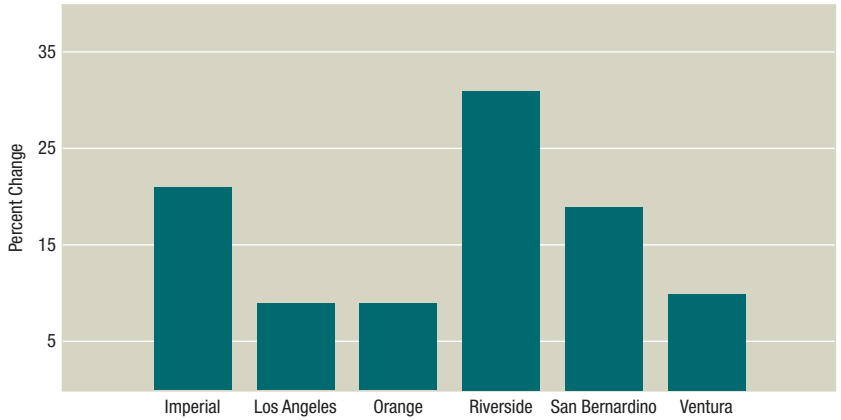
Los Angeles County accounted for 41 percent of the region's growth over the last seven years, adding 813,000 residents, while Riverside and San Bernardino Counties together added 804,000 residents. In terms of relative growth, the Inland Empire and Imperial Valley are the fastest-growing areas in the region. Riverside County grew by 40 percent, San Bernardino County by 19 percent and Imperial County by 22 percent. Nearly 46 percent of the region's growth occurred in areas outside of Los Angeles and Orange Counties. Los Angeles and Orange Counties were the slowest-growing counties, adding only 9 percent each to its populations during the same period.

FIGURE 2.4 POPULATION GROWTH BY COUNTY, 2000-2007



Source: California Department of Finance

FIGURE 2.5 PERCENT GROWTH IN POPULATION BY COUNTY, 2000-2007



Source: California Department of Finance

HOUSEHOLD GROWTH

Since the 2000 US Census, there was a net addition of 410,000 households, bringing the regional total to nearly 5.8 million in 2007. However, population growth outpaced household growth with only one household for every five persons added. The rapidly growing population is reflected in larger households rather than in the formation of new households. The average persons-per-household ratio in the region has increased from 3.07 in 2000 to 3.19 in 2007. The increasing household size may be caused by the cultural propensity of some groups such as recent immigrants to form large inter-generational families or by the limited supply of affordable housing units. Workforce housing affordability and availability issues have affected the quality of life in the region. The insufficient supply of affordable housing in job-rich urban areas maintains existing trends in urban sprawl, longer commute patterns, congested freeways and worsening air quality.

EMPLOYMENT GROWTH

In 2006, the region's total employment, including self-employment, was estimated to be nearly 8 million, having grown by 500,000 jobs (7 percent) from 2000. The region's economy is robust in terms of the number and the types of jobs available to residents looking for jobs, with the unemployment rate of the region at a historic low of 4.6 percent in 2006. The previous record in the region was 5 percent in 2000. The region's employment has been steadily growing since the recession of the early 1990s. The region experienced a net loss of 500,000 jobs during the recession period between 1990 and 1993, then overcame the recession by adding a net 780,000 jobs between 1996 and 2000. After slow growth in jobs in 2002 and 2003, the region is regaining its economic strength by increasing new annual job growth beyond these early decade levels.

The overall pattern of employment change is driven by the decline in manufacturing sector jobs due to globalization. Between 2000 and 2005, the manufacturing sector jobs dropped from 1,023,000 jobs to 835,000 jobs, a loss of 188,000 jobs. The share of the manufacturing sector jobs declined by 3 percent. Other significant economic sectors experiencing the absolute loss of jobs include 1) information, 2) agriculture and mining, and 3) transportation and warehousing, and utility. In contrast, 1) construction, 2) financial activity, 3) leisure and hospitality, 4) retail trade, and 5) other service sectors added a significant number of additional jobs to the regional economy. The growth in the construction and financial activity sectors was caused by the strong residential housing development. The increases in some service-sector jobs are directly associated with the increase in total population and an increase in the aged population in the region. The growth of service-sector jobs, in particular, population-serving jobs, is likely to continue in the future.

The strong regional job growth directly influences domestic migration, because it induces more domestic in-migration than domestic out-migration, while weak job growth causes more domestic out-migration than domestic in-migration. More net in-migration influences the job growth in the "population-serving" retail and service sectors.

TABLE 2.2 EMPLOYMENT BY SECTOR, 2000 AND 2005

Sectors (NAICS)	2000		2005		Change		
	Number	%	Number	%	Number	% Change	Change in % points
Agriculture & Mining	84,000	1%	78,000	1%	(6,000)	-7%	0%
Construction	369,000	5%	465,000	6%	96,000	26%	1%
Manufacturing	1,023,000	14%	835,000	11%	(188,000)	-18%	-3%
Wholesale Trade	374,000	5%	386,000	5%	12,000	3%	0%
Retail Trade	770,000	10%	841,000	11%	71,000	9%	1%
Transportation and Warehousing, and Utility	354,000	5%	349,000	4%	(5,000)	-1%	0%
Information	324,000	4%	278,000	4%	(46,000)	-14%	-1%
Financial Activities	415,000	6%	504,000	6%	89,000	21%	1%
Professional and Business Services	1,167,000	16%	1,197,000	15%	30,000	3%	0%
Education and Health Services	1,429,000	19%	1,546,000	20%	117,000	8%	1%
Leisure and Hospitality	664,000	9%	746,000	10%	82,000	12%	1%
Other Services	293,000	4%	313,000	4%	20,000	7%	0%
Public Administration	217,000	3%	234,000	3%	17,000	8%	0%
Total	**7,482,000**	**100%**	**7,771,000**	**100%**	**289,000**	**4%**	**0%**

Source: California Employment Development Department, SCAG Employment Estimates

INCOME

Income is one of most important indicators of economic well-being of residents in the region. In 1999, per capita income of the region, as a measure of the wealth of the residents, was approximately $21,000. By 2006, this amount grew to $25,000, an increase of 20 percent. After adjusting for inflation, per capita income of the region has declined from 1999 to 2006 (-5.7%). Per capita income of the region remains at the same level as the nation, but is lower than that of California by 6 percent. The relative income level of the region to the nation has declined from 1.27 in 1959 to 0.98 in 1999. Over the last three decades, the SCAG Region's per capita income ranking dropped from the 4th highest in 1969 to 7th in 1989, and 16th in 1999. The SCAG region continued to rank last in terms of per capita income among the 17 largest metropolitan regions in the nation in 2005.

Median household income increased by 22 percent from 1999 to 2006. However, this increase was only about 80 percent of what was required to keep up with inflation. Thus, real median household income was down by 4%. In 2006, median household income of the region was 15 percent above the national average, but was lower than that of California by 1.5 percent. The relative income level of the region to the nation has remained 9 percent to 23 percent above the national average for the periods of 1969, 1979, 1989, and 1999. The relative median household income level of the region has increased from 1.09 in 1999 to 1.15 in 2006.

Average income statistics, however, mask how much poverty is present in the region. In 2006, nearly 14 percent of the region's residents lived in poverty compared to around 13 percent for California and the nation as a whole. Around 18 percent of Imperial County residents live in poverty, followed by Los Angeles County at 15 percent. The poverty rates of Ventura, Orange, and Riverside County residents are lower than those of California or the nation.

Partly because of the higher than national average poverty levels and partly because of the high cost of home ownership in California, the region lags the nation in homeownership rates. During the last decade, median home values in California and the most populous areas of the region have risen due to construction activity lagging population growth, low inventory and historically low interest rates. Median home values in California now reach the $462,000 mark, which is more than double the national median. In 2006, 56.5 percent of regional residents owned their own home compared to 67.3 percent for the nation as a whole.

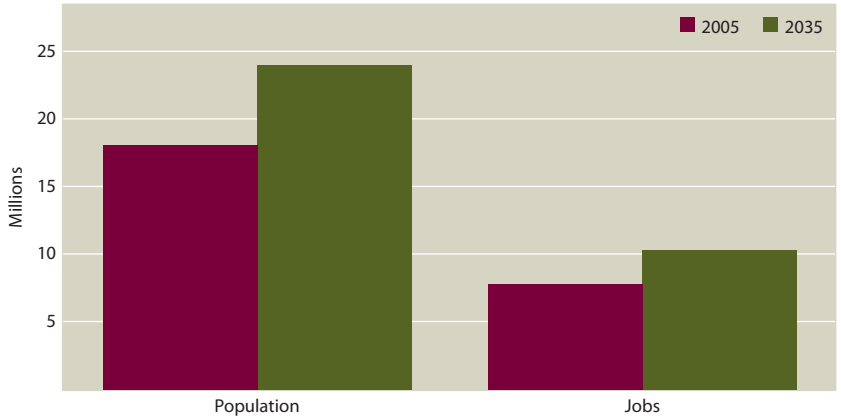
PATTERNS OF FUTURE GROWTH

A baseline growth forecast is a future snapshot of the most likely population and employment distribution without regional policy input. It reflects historical trends, based on reasonable key technical assumptions and existing and

newly approved local or regional projects. Specifically, the baseline growth forecast is a result of updating the 2004 RTP no-project growth forecast with the current demographic and economic trends, the latest land use changes, newly approved regionally significant projects, general plan or specific plan update, and/or zoning revisions. Also included are demand forecasts for cargo and passengers at the regional ports and airports. The port and airport demand forecasts include projects that improve operations and increase capacity. Intermodal expansion was assumed in terms of additional capacity at the ports for goods movement growth, and the trips associated therewith were assumed to be located in the Inland Empire. The VMT and related emissions regarding such trips are incorporated into the modeling analysis.

According to the baseline growth forecast summarized in Figure 2.6, the region will add 5.9 million people to reach 24 million people by 2035. Supporting this population in 2035 will be a total of 10.3 million jobs in 2035 with 2.5 million new jobs. This level of population and job growth is expected to yield 2 million additional households in the region at an average of three persons per household. The substantial amount of projected growth will pose serious transportation and air quality challenges for the region.

FIGURE 2.6 POPULATION AND EMPLOYMENT, 2005 AND 2035



Source: California Department of Finance, California Employment Development Department, SCAG Employment Estimates, SCAG Baseline Growth Forecast

TABLE 2.3 SOCIOECONOMIC INDICATORS, 2005 AND 2035

	2005**	2035	Change	% Change
Total population ('000), % Change (2005-2035)	18,147	24,057	5,910	33%
Persons under 16 years old (%)	24.4	21.4	-2.9	
Persons 16-64 years old (%)	65.7	62.7	-3.0	
Persons 65 years old and over (%)	9.9	15.9	6.0	
Median age	32.9	35.9	3.1	
Total dependency ratio*	52.1	59.5	7.4	
Child dependency ratio	37.1	34.2	-2.9	
Old-age dependency ratio	15.1	25.3	10.3	
Births per 1,000 population	15.9	14.4	-1.4	
Total fertility rate (per woman)	2.05	2.02	-0.03	
Deaths per 1,000 population	6.3	6.9	0.7	
Natural increase (%) (2000-2005, 2005-2035)	55.0	84.0		
Net migration (%) (2000-2005, 2005-2035)	45.0	16.0		
Non-Hispanic White persons (%)	36.0	21.9	-14.1	
Non-Hispanic Black persons (%)	7.1	5.8	-1.2	
Non-Hispanic Asian & Other persons (%)	13.8	17.0	3.3	
Hispanic persons (%)	43.1	55.2	12.0	
Households ('000), % Change (2005-2035)	5,687	7,711	2,024	36%
Total population per household (PPH)	3.19	3.12	-0.07	
Householders 65 years old and over (%)	17.3	26.5	9.2	
Total employment ('000), % Change (2005-2035)	7,771	10,287	2,516	32%
Agriculture & Mining (%)	1.0	0.8	-0.2	
Manufacturing (%)	10.7	7.7	-3.0	
Service (%)	**88.3**	**91.5**	**3.2**	

Notes: **A measure showing the number of dependents (aged 0-15 & over 65) per 100 working age population (aged 16-64). Dependents per 100 working-age population.*

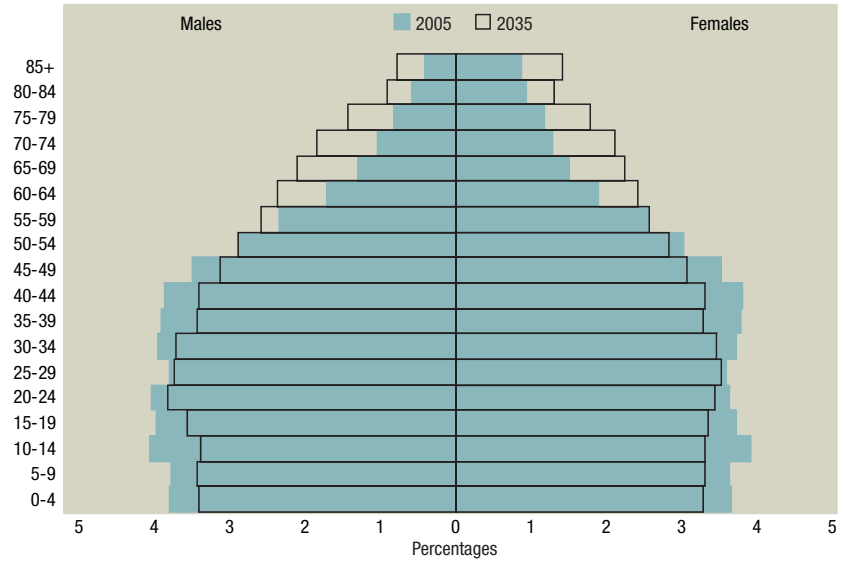
*** Model estimate*

Source: *SCAG Baseline Growth Forecast*



Where will all these people come from? Approximately 85 percent of the region's population growth in the future is due to natural increase. The region is expected to experience a net loss in domestic migration, but this will be more than offset by international immigration. As the region grows, the average person will be older, and Hispanics will become the majority ethnic group. The population in the region will become older because of aging "baby boomers" born between 1946 and 1964. The median age will rise from 32.9 years in 2005 to 35.9 in 2035. The population aged 65 and older will grow four-and-a-half times faster than the working-age population (16-64 years old) between 2005 and 2035. As a result, workers in the region will support a larger share of the older "baby boomer" population in 2035.

FIGURE 2.7 POPULATION AGE PYRAMID, 2005 AND 2035



Source: SCAG Baseline Growth Forecast

Due to the retirement of "baby boomers," the region may experience severe shortages of skilled labor. The aging baby boomers may postpone the retirement or the female labor force may increase the labor force participation. If domestic migration does not make up the shortage of skilled labor, then more foreign immigration will be needed. The skills of the new labor force, particularly recent immigrants, will probably not match the requirements of the skilled jobs. This could depress the overall income level of the workers and households. Long-term strategies to achieve growth and equitable distribution of income should be considered, including appropriate and enhanced educational opportunities and a phased retirement system.

Shifting demographic patterns will also influence travel behavior. The elderly people travel less than the younger population and the elderly workers tend to work at home. If necessary, they commute to work for a shorter distance. Recent immigrants tend to use public transportation much more than other population groups. Urban density levels may also increase since foreign-born residents urbanize less land. Many SCAG Region foreign-born, Hispanic, and Asian residents have modest incomes, larger household sizes, and tend to double up in existing urban areas, thereby increasing population density. The socioeconomic characteristics and lifestyle choices associated with immigration are consistent with a more compact urban form.

The overall number of persons per household will be smaller in the region in 2035 as downward pressures are exerted by aging "baby boomers" and lower birth rates, while there are upward pressures from increasing Hispanic populations with relatively large households (especially recent immigrants). The number of persons per household may increase in some built-out areas over the projection horizon due to the limited availability of developable land. The racial and ethnic composition of households will reflect the population diversity and create demand for a wider variety of housing types than are most prevalent today. Specifically, there will be more need for close-in and infill housing, condominiums and multi-family housing.

Jobs will be created across all employment sectors, except the manufacturing sector. The largest gains will be in service-sector jobs as the shift in the region from manufacturing jobs to service-sector jobs continues. Between 2005 and 2035, service-sector jobs will lead in total growth and comprise the largest share of total jobs. The makeup of service sector jobs will also change, with different employment opportunities. Three top leading sectors include 1) education and health services, 2) professional and business services, and 3) construction. These fast-growing sectors are supported by the continued growth of population and demographic changes (e.g., aging of baby boomers). With continued globalization, the share of the manufacturing sector will continue to decline from 11 percent in 2005 to 8 percent in 2035. The manufacturing sector still remains important and there are growth opportunities in the high-tech manufacturing sector. The decline of the manufacturing sector might result in the lower income level of workers and households. The policy strategies might focus on creating more high-wage and salary service sectors, which include 1) information, 2) public administration, 3) financial activities, 4) wholesale trade, and 5) transportation and warehousing, and utilities. The

logistics sector, comprising wholesale trade, transportation, and warehousing, might become more important in the region's economic growth as the region's foreign trade activities continue to grow. The significant growth of the construction sector might influence the future traffic congestion in the region. The workers in the construction sector tend to commute to work for longer distances, but they use carpooling much more than other workers.

TABLE 2.4 EMPLOYMENT BY SECTOR, 2005 AND 2035

Sectors (NAICS)	2005		2035		Change		
	Number	%	Number	%	Number	% Change	Change in %
Agriculture & Mining	78,000	1%	86,000	1%	8,000	10%	0%
Construction	465,000	6%	687,000	7%	222,000	48%	1%
Manufacturing	835,000	11%	792,000	8%	(43,000)	-5%	-3%
Wholesale Trade	386,000	5%	458,000	4%	72,000	19%	-1%
Retail Trade	841,000	11%	1,122,000	11%	281,000	33%	0%
Transportation and Warehousing, and Utility	349,000	4%	418,000	4%	69,000	20%	0%
Information	278,000	4%	362,000	4%	84,000	30%	0%
Financial Activities	504,000	6%	601,000	6%	97,000	19%	-1%
Professional and Business Services	1,197,000	15%	1,770,000	17%	573,000	48%	2%
Education and Health Services	1,546,000	20%	2,299,000	22%	753,000	49%	2%
Leisure and Hospitality	746,000	10%	1,027,000	10%	281,000	38%	0%
Other Services	313,000	4%	366,000	4%	53,000	17%	0%
Public Administration	234,000	3%	301,000	3%	67,000	29%	0%
Total	**7,771,000**	**100%**	**10,287,000**	**100%**	**2,516,000**	**32%**	**0%**

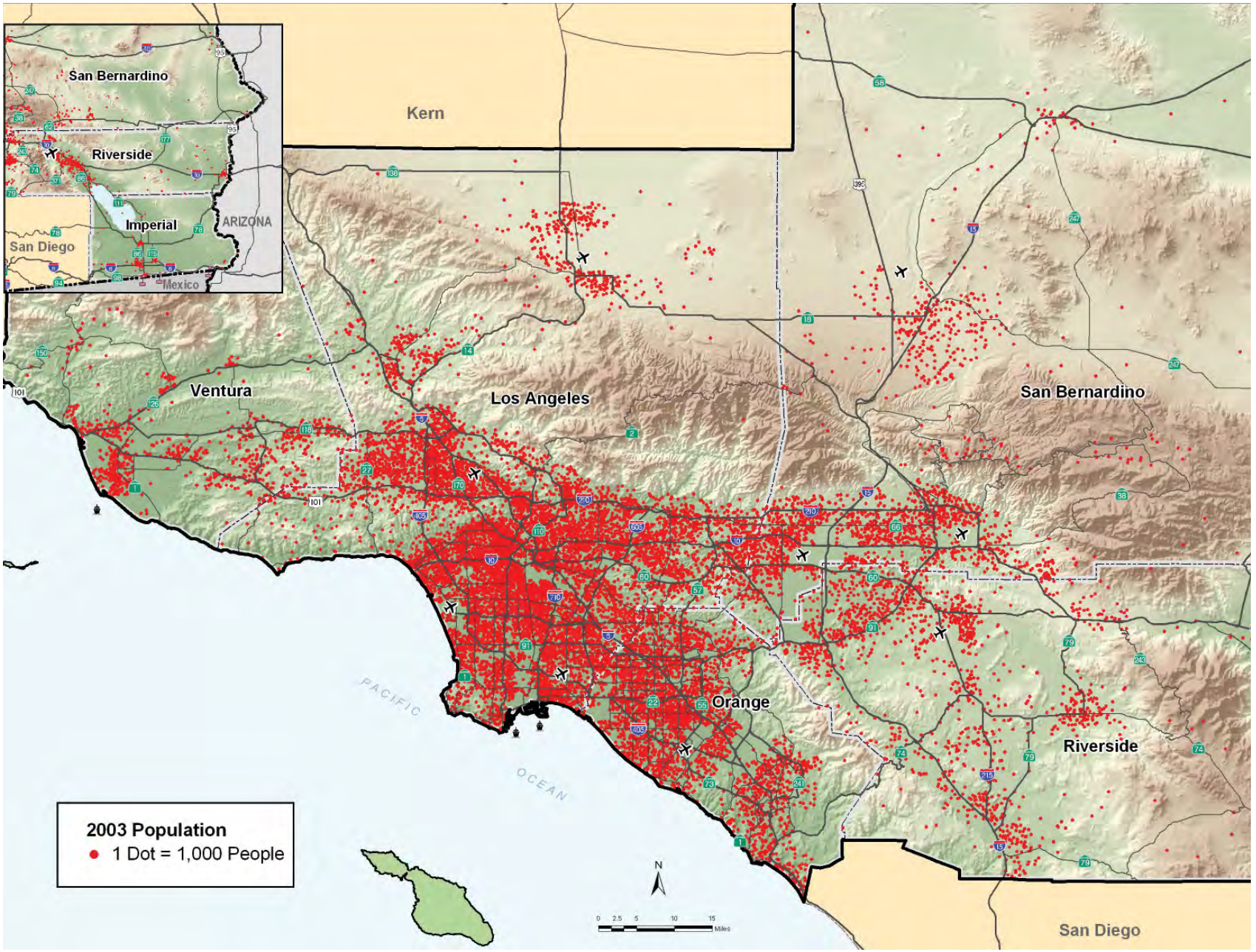
Source: SCAG Baseline Growth Forecast

The overall economic well-being of residents in the region improves during the planning period. The median household income of the region is expected to increase by one-half percent per year from $46,000 (in 1999 dollars) in 2005 to $53,000 (in 1999 dollars) in 2035. The higher-income households with more than $100,000 (in 1999 dollars) increase two or three times faster than low- and middle-income households. The projected income level and



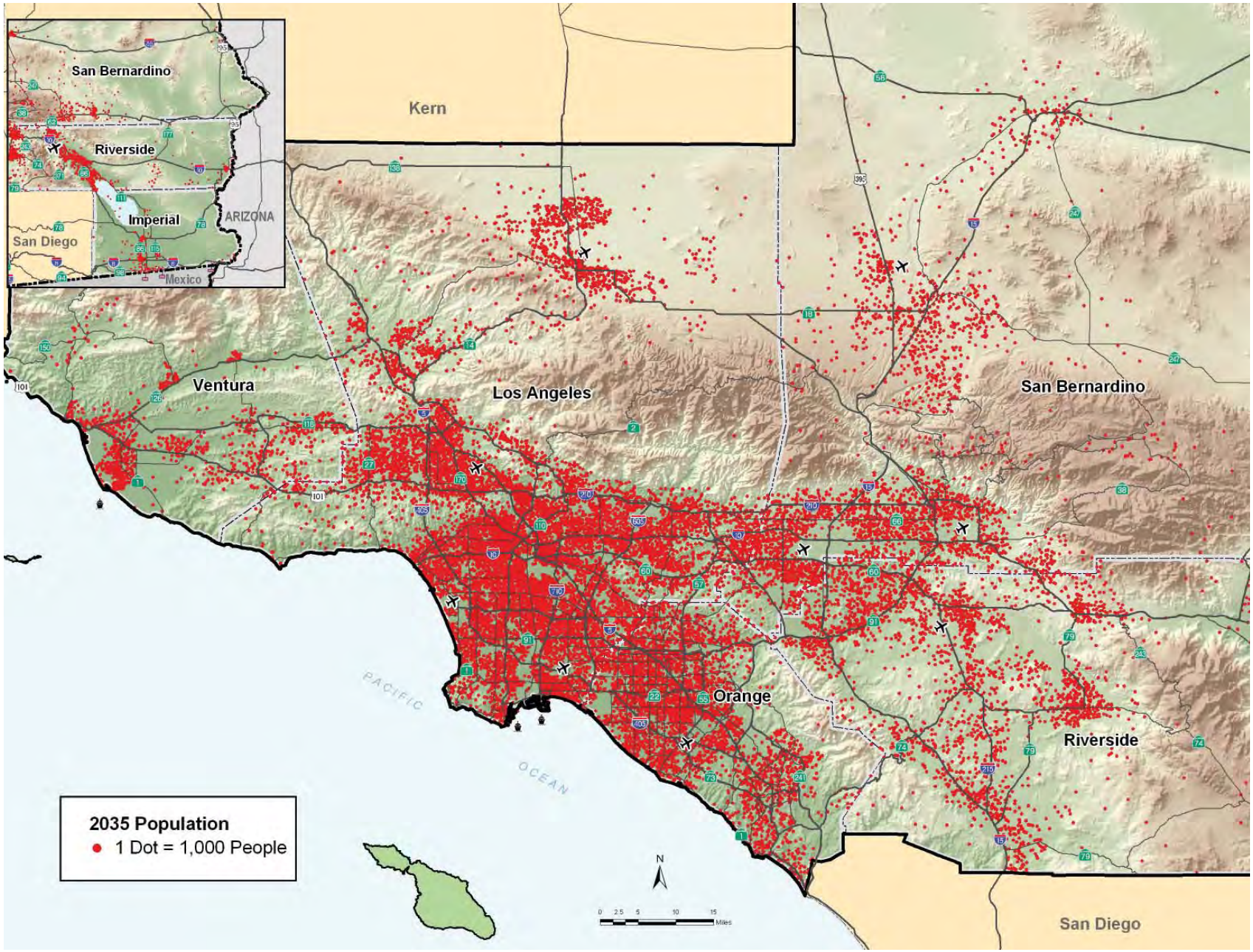
distribution affects auto ownership, trip generation, and mode choice. For example, higher household income implies more cars available for travel, more trip generation, and more driving than transit use.

EXHIBIT 2.1 2003 POPULATION



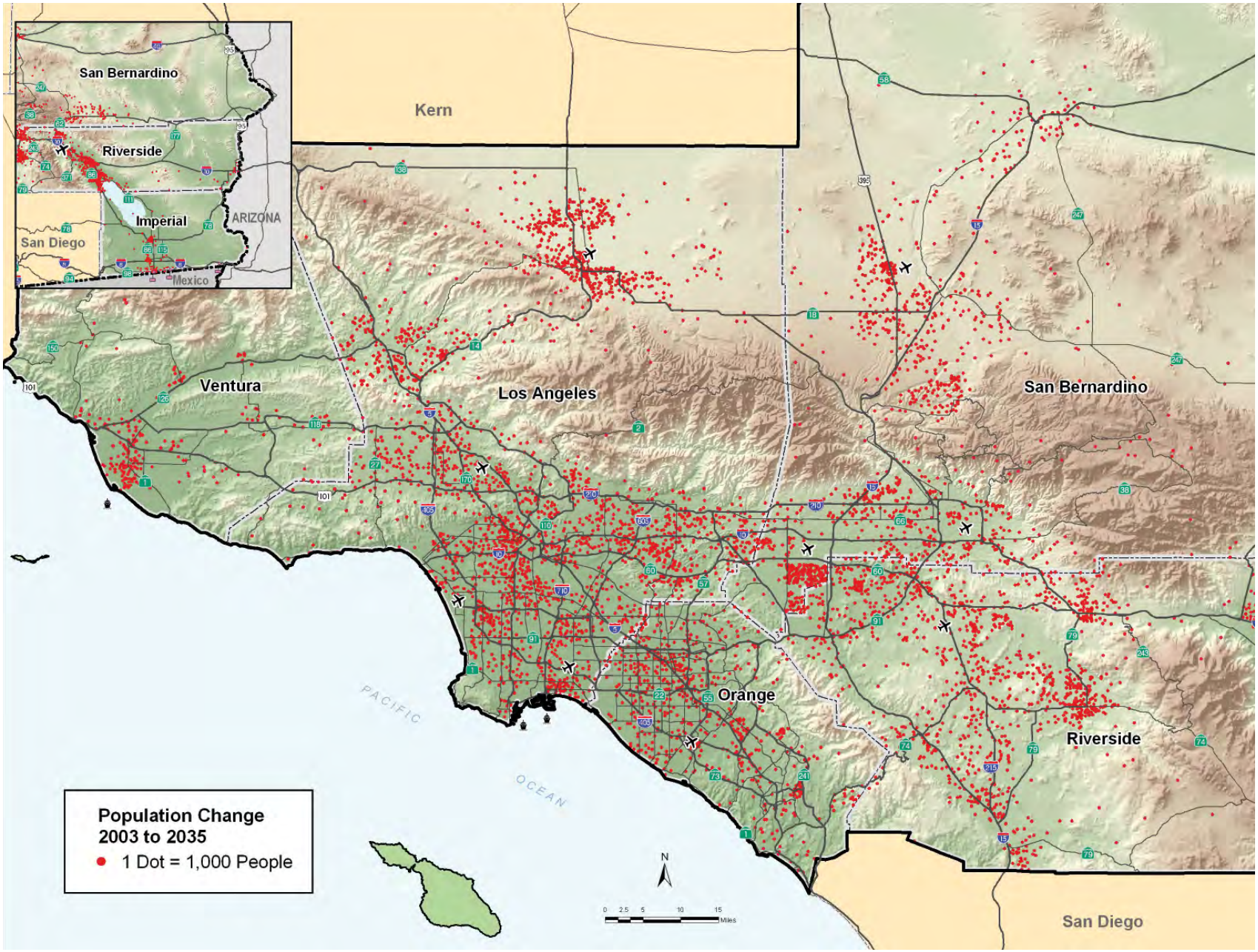
Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 2.2 2035 POPULATION



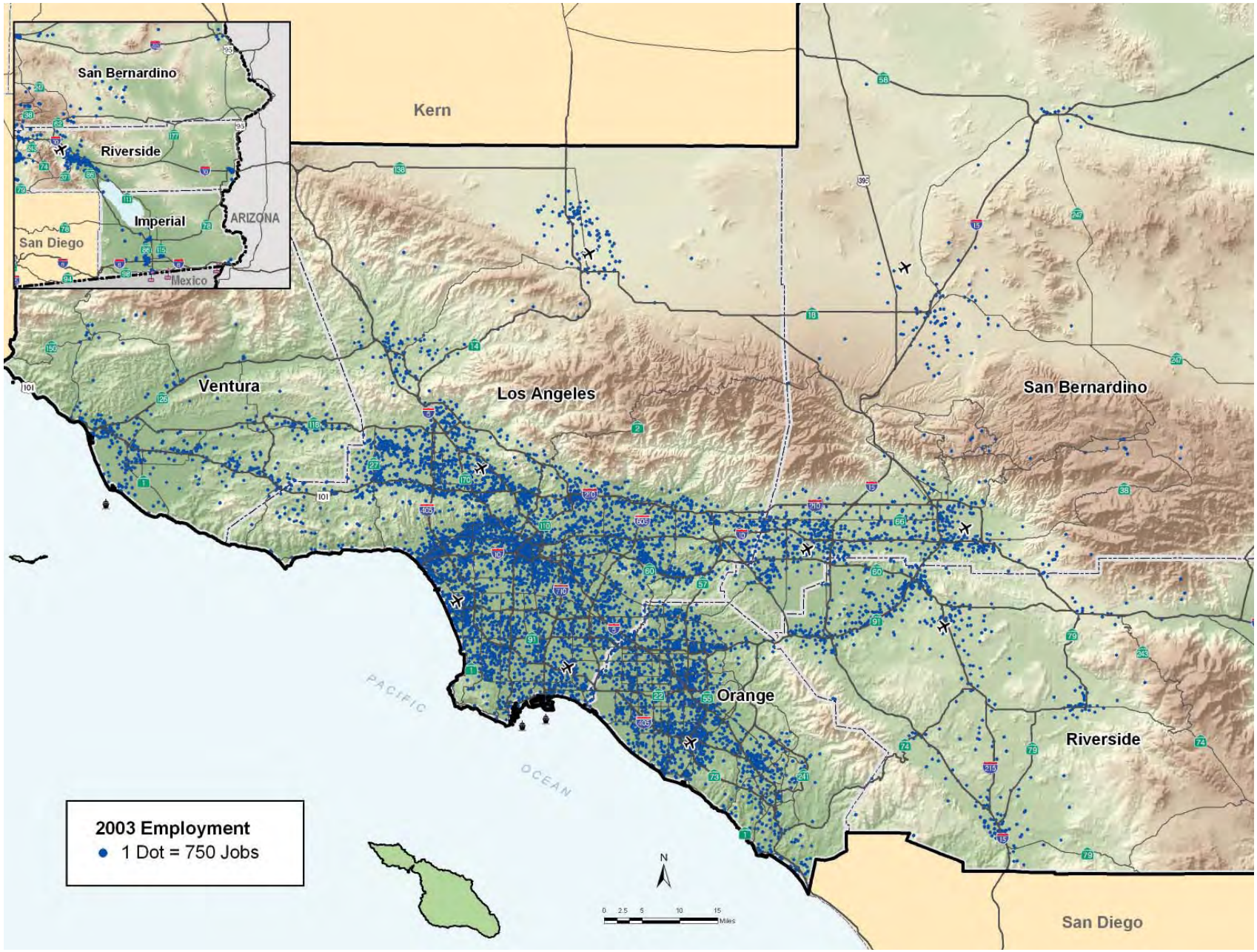
Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 2.3 POPULATION INCREASE, 2003-2035



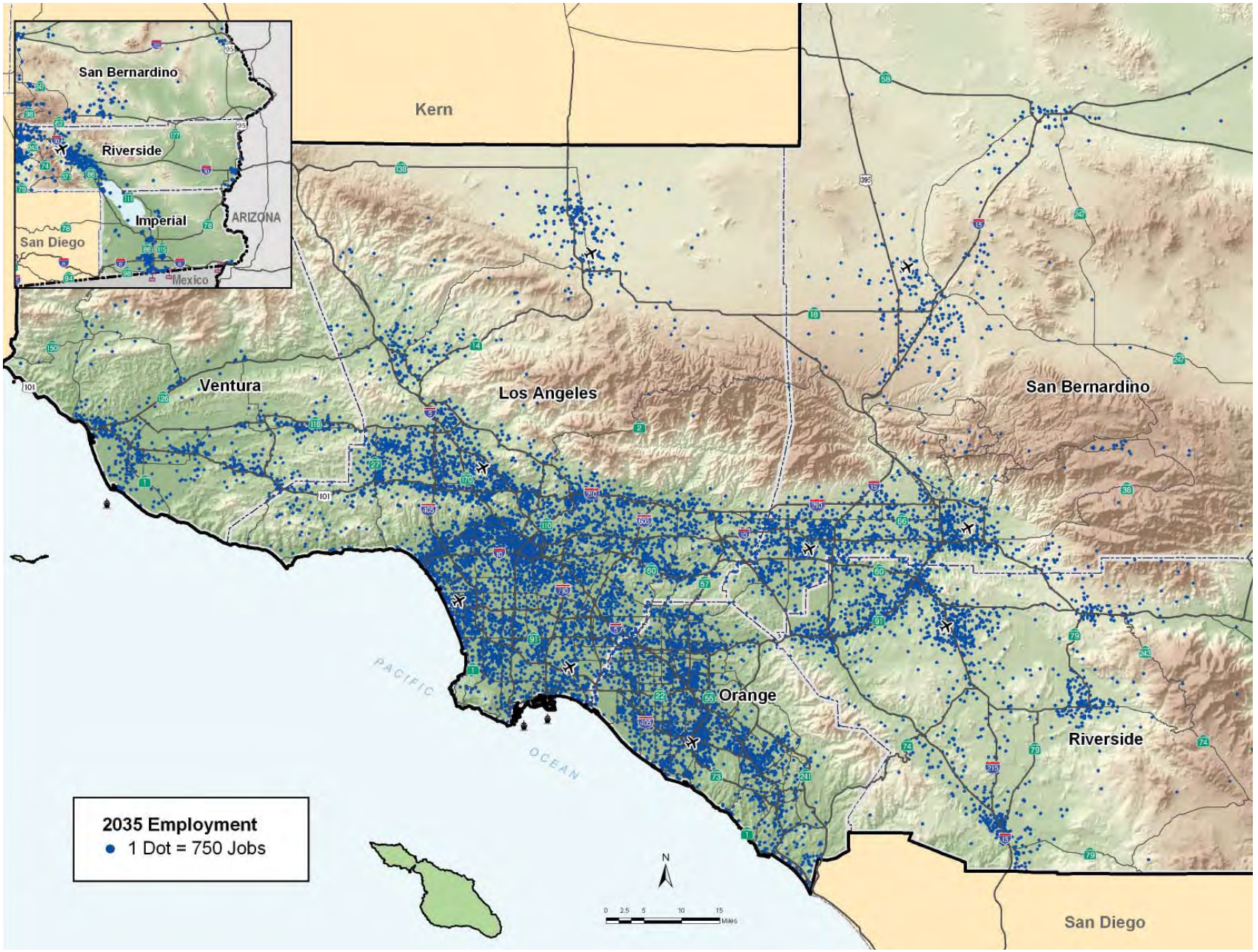
Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 2.4 2003 EMPLOYMENT



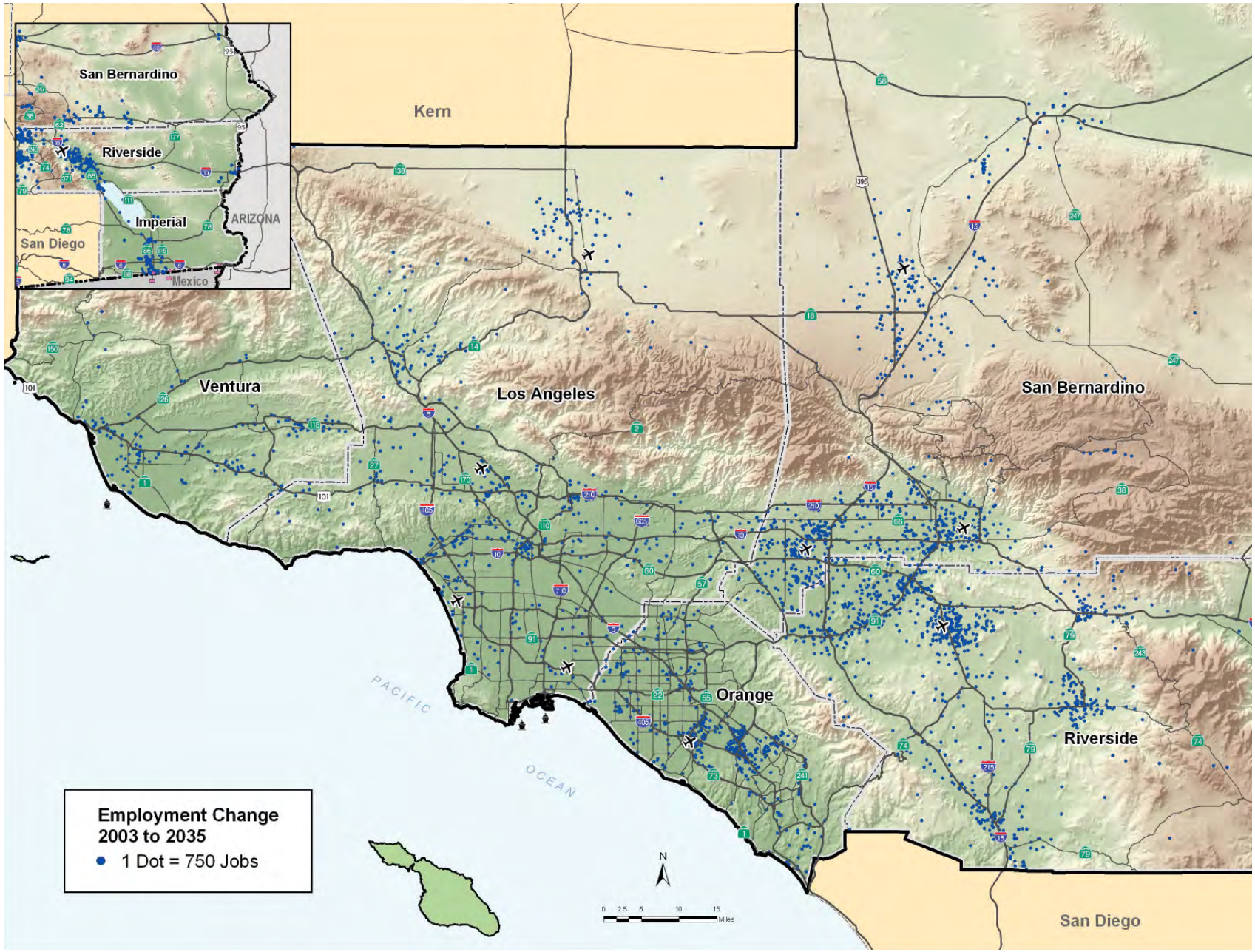
Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 2.5 2035 EMPLOYMENT



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 2.6 EMPLOYMENT INCREASE, 2003-2035



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas



Table 2.5 summarizes the baseline growth forecast by county for 2035 population, households, and employment. The baseline growth represents a forecast based on current and expected demographic and economic trends, as well as previously adopted local land use policies within the SCAG Region.

TABLE 2.5 2035 POPULATION, HOUSEHOLDS, AND EMPLOYMENT (THOUSANDS)

	Baseline		
County	Population	Households	Employment
Imperial	320	103	133
Los Angeles	12,339	4,004	5,041
Orange	3,654	1,118	1,982
Riverside	3,597	1,183	1,414
San Bernardino	3,134	973	1,255
Ventura	1,014	330	463
SCAG Region	**24,057**	**7,711**	**10,287**

Source: SCAG Baseline Growth Forecast

Where do we live and work now, and where will we live and work in the future? The regional baseline forecasts are distributed to counties, subregions, and smaller geographies through an interactive collaborative process in which cities, subregions, regional agencies, experts, and stakeholders participated. Input from local jurisdictions plays an important role in determining the baseline growth distribution within their boundaries. Exhibit 2.1 shows where we lived in 2003 and Exhibit 2.2 shows where we are forecast to live in 2035. Exhibit 2.3 shows the difference between the two time periods. In terms of where we work, Exhibit 2.4 shows 2003 employment clusters, while Exhibit 2.5 shows anticipated 2035 employment clusters. Exhibit 2.6 shows the difference between the two time periods.

Mobility Challenges

The projected growth in the region is expected to place even greater demands on the transportation system. The SCAG Region is served by an extensive multimodal transportation system addressing all aspects of travel in the region, including commuters; shoppers; public transit patrons; truckers delivering goods both regionally and locally, such as groceries to the local supermarkets; as well as fire, police, and other emergency personnel. The roadway and freight rail networks serve the largest maritime ports system in the United States (the Ports of Long Beach, Los Angeles, and Hueneme) and a number of large airports, including the fifth-largest airport in the world (Los Angeles International Airport–LAX).

The region has over 20,750 centerline miles and over 65,000 lane-miles of roadways, including one of the most extensive High-Occupancy Vehicle (HOV) lane systems in the country. Additionally, the region has a growing network of tolled lanes and High-Occupancy Toll (HOT) lanes. Regionally significant arterials provide access to the freeway system and often serve as parallel alternate routes; in some cases, they are the only major system of transportation available to travelers.

The public transit network in the SCAG Region has been growing significantly over the last two decades, and this growth accelerated since the 2004 RTP. The region has approximately 640 bus routes and about 50 local bus operators, four commuter express bus services, two subway lines and three light rail lines operating in Los Angeles County, and the Metrolink commuter rail network spanning five of the six counties and northern San Diego County.

Despite this vast multimodal network, transportation in the SCAG Region is facing serious, unprecedented challenges. Although the first thought about Southern California transportation is congestion, other major related challenges are equally (or more) serious.

To truly understand these challenges, it is important to understand how we got to this point. How did we become the most congested metropolitan region in the country? Only by developing an in-depth understanding of the current situation and the factors that led to this situation can we try to develop consensus on the tough choices that are before us.

ROADWAY CONGESTION

The second-largest metropolitan area in the United States with over half of California's residents, the Southern California region is the most congested metropolitan area in the country. Over the past twenty years, traffic delays have nearly tripled in the region, and SCAG's Regional Transportation Model estimates the following alarming traffic delay statistics (defined as the difference in travel time between free-flow conditions and actual conditions):

- 3.9 million vehicle-hours of daily delay
- 5.7 million person-hours of daily delay
- 15 minutes of delay per capita during peak commute periods

Almost as frustrating as daily recurrent delay is the variability of travel time. For example, trips that on average take 30 minutes often last much longer due to incidents, collisions, weather, special events, construction activities, or other difficult-to-predict conditions. The frequency of such unpredictable delays over and beyond the "normal" congestion has been increasing steadily on our roadways. The combination of increasing congestion and decreasing predictability of travel times has led to our region's status as the capital of congestion in the country.

ROADWAY PRODUCTIVITY LOSSES

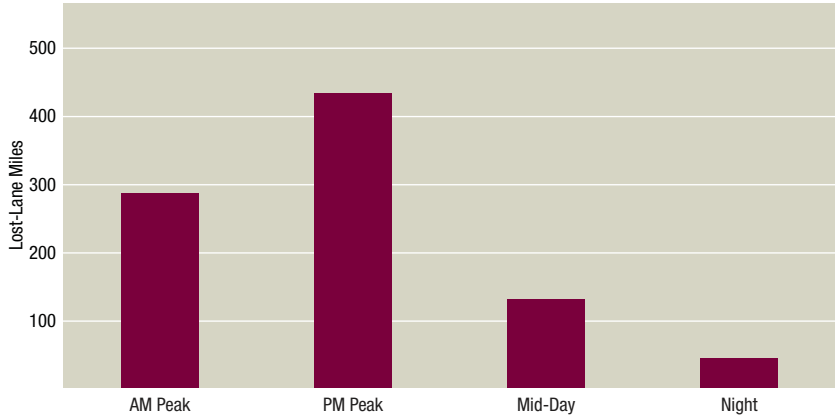
Roadways are built to provide traffic capacity to vehicles. For instance, freeways are generally built to provide a capacity of between 1,600 and 2,000 vehicles per hour per lane. When a segment of the freeway provides this "design" capacity, it is considered productive. However, the roadway system loses its productivity when it is unable to provide the capacity that it was designed to serve. This occurs at locations commonly referred to by transportation planners and engineers as bottlenecks and the queues building up behind

these bottlenecks (e.g., at freeway-to-freeway interchanges). The resulting productivity losses of the system occur generally during peak demand periods and are caused by merges, weaves, lane drops, stalls, accidents, and other factors. So, in effect, when demand is highest, system productivity actually decreases. Many freeway segments in the SCAG Region experience productivity losses and end up serving between 1,000 and 1,500 vehicles per hour per lane instead of the almost 2,000 vehicles per hour per lane for which they were designed.

When these productivity losses are aggregated, they can be presented in terms of "Lost Lane-Miles," which reflect the equivalent capacity subtracted from the roadway system. Figure 2.8 presents the results of an analysis to estimate the lost productivity in the SCAG Region based on actual traffic data from the region's freeway system during the four major time periods of the day: AM Peak, PM Peak, Mid-Day, and Night.

This "lost" capacity in the AM peak period, attributable to a large extent to non-recurring incidents such as accidents, weather conditions, stalled vehicles, etc., could have the effect of the loss of approximately 286 lane-miles of freeway capacity when it is needed the most. The cost of physically adding this lost capacity by widening existing facilities would exceed $4 billion.

FIGURE 2.8 PRODUCTIVITY RESULTS BY TIME PERIOD

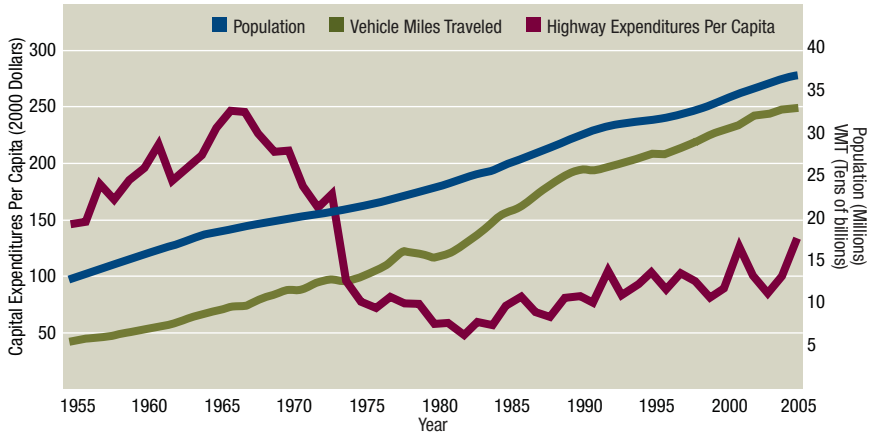


Source: Freeway Performance Measurement System (PeMS)

SUPPLY NOT KEEPING UP WITH DEMAND

As mentioned previously, people are moving further away from established urban areas, at least partly because of housing costs. This creates incremental demand for travel. The size of the roadway system, however, has not kept pace with population and transportation demand. Figure 2.9 illustrates this problem. The figure shows that while California's population and total vehicle miles traveled have more than doubled since 1970, expenditures on this vital system have decreased significantly beginning in the early 1970s and still have not reached the level of investments made during the 1960s. Once the preservation and operations costs are subtracted from these expenditures and the high construction inflation is accounted for, it is easy to understand why the supply of roadways did not keep up with the demand growth for over three decades.

FIGURE 2.9 CALIFORNIA POPULATION, TRAVEL, AND HIGHWAY EXPENDITURE TRENDS*



** Includes expenditures for local assistance and state highway capital outlay. Office of Transportation Economics/DOTP 9/2006*

Source: California Department of Transportation

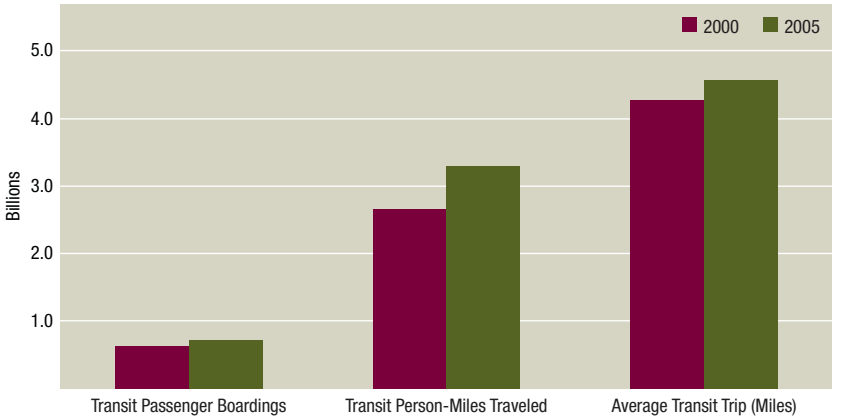
Note that these trends were not altogether unintentional. In fact, starting in 1980, a major shift occurred away from building roadways and into transit projects and services. This trend was planned and executed deliberately and understandably.

GROWING, BUT STILL MODEST PUBLIC TRANSIT USAGE

The investments in public transit since the 1980s have started to pay off. This success of transit is easily measured. Between 2000 and 2005, regional transit use increased by more than 16 percent, from 622 million annual unlinked passenger trips to more than 722 million, as shown in Figure 2.10. Transit person-miles traveled (PMT) increased by more than 24 percent to nearly 3.3 billion person-miles in 2005.

Continuing a trend of more per capita transit use that began in the mid-1990s, transit ridership per capita has reached nearly 40 boardings per person in the region by 2005. This rate had not been seen since the mid-1980s. Our regional investments in new transit modes and innovative services are a significant factor in achieving this growth. Additionally, more people are traveling longer distances, as shown in Figure 2.10. The length of an average transit trip increased from under 4.3 miles in 2000 to more than 4.5 miles in 2005. This represents a seven percent increase.

FIGURE 2.10 TRANSIT BOARDINGS AND PERSON-MILES TRAVELED, 2000-2005



Source: Federal Transit Administration (FTA) National Transit Database

However, regional transit operators still struggle to attract a significantly higher share of the traveling public. Despite the increase in boardings and per capita transit use, SCAG's Regional Travel Demand Model estimates that in 2003, less than 3 percent of all trips and person-miles traveled in the region were taken on public transit. A bright note is that since the rate of growth in transit use has outpaced growth in highway and arterial VMT by more than threefold since the year 2000, there are indications that regional investments may attract a greater share of the public in the future, especially with rising gasoline prices.

The development of new rail and bus transit corridors has spawned investment in new housing, retail, and business development at and near transit

stations. These changes in land use, as outlined in the Compass Blueprint program, primarily through transit-oriented development, may result in fewer auto trips and reduced VMT by creating urban environments that provide better access to jobs and services, which in turn encourages more walking, bicycling and transit use.

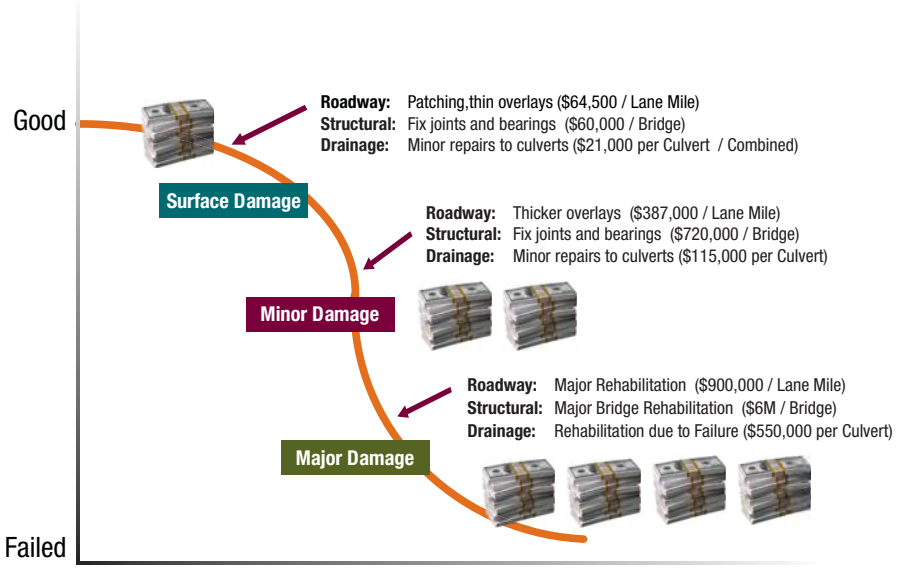
AGING INFRASTRUCTURE

The need to preserve our transportation assets adequately was brought to the nation's attention after the Minnesota I-35W bridge collapse during the summer of 2007. We must recognize that our roadway network and transit systems developed over the past decades are aging. These regional assets represent hundreds of billions of dollars of investments that must be protected in order to serve us and future generations. Without these assets, or even a portion of these assets, the region's mobility would be significantly compromised.

Unfortunately, our region's roadways, especially the State Highway System that is owned and operated by Caltrans, have not been maintained adequately. Caltrans reports that 28 percent of its pavement requires rehabilitation (based on 2005 statistics). Regional arterial studies have concluded similar needs.

Deferred maintenance leads to higher costs, as shown in Figure 2.11. Whereas pavement surface damage requires an investment of $64,000 per lane-mile to bring it to a state of good repair, the costs escalate significantly if these investments are not secured in a timely manner. In fact, the costs for minor damage repair escalate more than fivefold to $387,000, and the costs for major damage repair escalate to an astronomical $900,000 per lane-mile.

FIGURE 2.11 PRESERVATION COST-EFFECTIVENESS



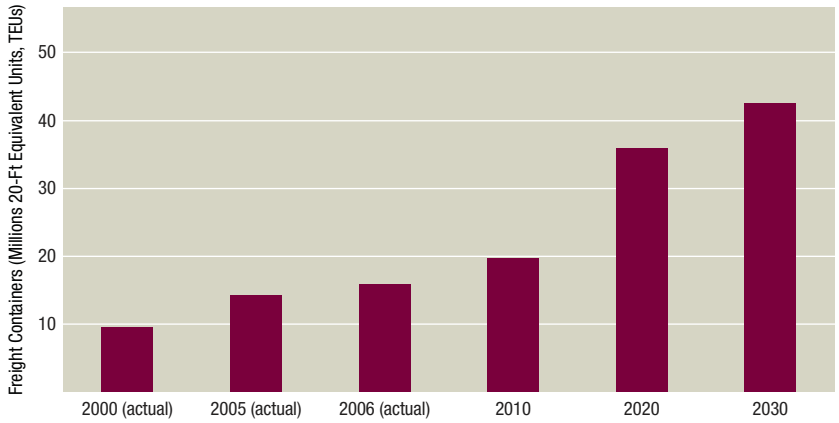
EXPLOSIVE GROWTH IN GOODS MOVEMENT

The SCAG Region's goods movement system serves as the gateway for both international and domestic commerce. Supported in part by its geographical advantages such as deep-water marine ports, and highly developed network of highways and railways, availability of transloading facilities and its large internal market, goods movement is the fastest-growing segment of the region's transportation sector. Every state in the nation receives goods that pass through Southern California, and the region is a cornerstone of the nation's global competitiveness.

The San Pedro Bay Ports, which include the Los Angeles and Long Beach Ports, currently handle approximately 40 percent of the volume imported into the country and approximately 24 percent of the nation's exports, and one out of every seven jobs in Southern California depends on this trade. Figure 2.12 reflects the explosive growth in container volume processed by the San Pedro

Bay Ports. It shows an almost 60 percent increase in volume between the years 2000 and 2006. Moreover, it also shows that this type of growth will continue, leading to an almost tripling of container volume by 2030.

FIGURE 2.12 SAN PEDRO BAY PORTS CONTAINER VOLUME TREND AND PROJECTIONS



Source: Port of Long Beach and Port of Los Angeles

As the only deep-water port between Los Angeles and San Francisco, the Port of Hueneme in Ventura County is a major shipping point for automobiles, fresh fruit and produce. Approximately $7 billion in cargo traverses through this Port annually, and trade-related activity generated by the Port contributes significantly to the local economy.

Cross-border trade activity also contributes to the region's international trade growth, with the growth in Mexico's manufacturing industry increasing truck trips through Calexico East in Imperial County by 77 percent between 1994 and 2005.

More than 75 percent of the containers processed by the ports in 2006 and 2007 involved at least one truck trip within the SCAG Region, either to a rail intermodal facility, a warehouse, or a transload facility. These trucks contribute to the existing congestion in the region and will contribute to future congestion even more, as the number of trucks is projected to increase significantly for several major freeways, as shown in Table 2.6.

TABLE 2.6 DAILY TRUCK VOLUMES BY CORRIDOR (THOUSANDS)

Freeway	2003*	2035*
I-110	21.1	27.8
I-405	33.2	39.4
I-10	26.3	47.0
US-101	32.3	40.2
I-105	20.8	30.8
I-5	35.7	62.1
I-710	38.6	63.3
SR-60	30.6	43.2
SR-111	1.8	6.2

** Daily Truck Volumes based on the maximum volume for a segment per freeway*

Source: SCAG Model

Recent projections included in SCAG's Inland Empire Railroad Main Line Study suggest that the number of freight trains on most Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) lines will more than double between 2000 and 2025 in response to a tripling of container volume at the San Pedro Bay Ports. Although freight rail does not add to freeway congestion, it does pose serious quality of life issues for many communities. Some towns and cities witness 100 trains per day that literally split their communities into two sections for extended periods of time. Exhibit 2.8 shows the Colton crossing and suggests how rail traffic can seriously affect the quality-of-life and safety of a community.

EXHIBIT 2.7 SCAG REGION REGIONAL AIR CARRIER SYSTEM



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 2.8 COLTON AT-GRADE RAIL CROSSING



Source: Google Maps

As the expanding goods movement sector continues to have a positive impact on our economy, it will also have critical and far-reaching impacts on our region's transportation system and public health. An essential element to improving the region's goods movement system will be to reduce its current and long-term impacts on public health and the environment.

AVIATION CAPACITY AND GROUND ACCESS CONSTRAINTS

The SCAG Region supports the nation's largest regional airport system in terms of number of airports and aircraft operations, operating in a very complex airspace environment. Exhibit 2.7 shows the SCAG regional air carrier airport system. The system has six established air carrier airports, including Los Angeles International (LAX), Bob Hope (formerly Burbank), John Wayne, Long Beach, Ontario and Palm Springs. There are also four new and emerging air carrier airports in the Inland Empire and North Los Angeles County. These include San Bernardino International Airport (formerly Norton Air Force Base [AFB]), March Inland Port (joint use with March Air Reserve Base), Southern California Logistics Airport (formerly George AFB) and Palmdale Airport (joint use with Air Force Plant 42). The regional system also includes 45 general aviation airports and two commuter airports (Oxnard and Imperial), for a total of 57 public use airports.

There are significant challenges in meeting the future airport capacity needs of Southern California. Work on SCAG's 2004 RTP concluded that an Aviation Decentralization Strategy is needed to meet the forecast doubling of air passenger demand by 2030, from the current 90 million annual passengers (MAP) to 170 MAP (according to the 2004 RTP). This is because the four urban air carrier airports in Los Angeles and Orange Counties—LAX, Bob Hope, Long Beach and John Wayne—are all highly constrained. Their collective acreage amounts to 5,540 acres, which is less than 17% of the 34,000 acres of Denver International, and less than the 7,700 acres of Chicago O'Hare. At 3,500 acres, LAX is a very small international airport despite being the third-busiest airport in the country and fifth-busiest in the world in terms of passengers served. All of these urban airports have little room to expand because of severe encroachment by surrounding communities. In addition, two of these airports—Long Beach and John Wayne—have strict limits on allowable flights that are legally enforceable (one is a city ordinance and the other is a court settlement agreement) since they predate the Federal Airport Noise and Capacity Act of 1990 (ANCA).

The challenge of meeting future aviation demand in the SCAG Region is inextricably tied to airport ground access, since in order to meet that demand the region will need to get future air passengers from the urban areas of Los Angeles and Orange Counties to available airport capacity in the Inland Empire and North Los Angeles County. The challenge is complicated by the fact that the regional roadway system will become increasingly unreliable, with daily delay on the system expected to more than double. This will place a great

burden on the air traveler, who will have to allow for more time to get to the airport to catch his or her flight. It will make it difficult to expand the new airports with available capacity, since until they fully mature they will have few alternative flights to offer air travelers who miss their flights because of unreliable ground access. Unless the regional airport ground access system is substantially improved, many potential air travelers will choose not to fly at all, which will translate to substantial economic loss to the region.

Southern California airports play a crucial role in international trade, particularly with Pacific Rim countries, and to the regional economy. The value of airborne commodity exports out of the Los Angeles Customs District are about equal to waterborne exports, and airborne export values would be significantly greater if service exports, including impacts from tourism, were added to total export values. Therefore, the airport constraints our region faces pose a threat to our regional economy and well-being. A regional strategy is needed to help address this inter-regional mobility challenge.

Air Quality Challenges

The SCAG Region continues to have the worst air quality in the nation, even despite improvements gained in the last two decades. The recently documented health impacts of air pollution on people living in the South Coast Air Basin are staggering. Of all the people nationwide who are exposed to PM2.5 levels that exceed the federal health-based standard, 52% live here. Of all the people statewide who are exposed to these levels, 82% live here. This is estimated to result in 5,400 premature deaths and 980,000 lost work days per year.[1] These impacts, and the fact that a substantial portion of emissions are outside of local and state control, led SCAG to urge via Resolution the declaration of a state and federal emergency to address the air quality health crisis. Subsequently, the South Coast Air Quality Management District (SCAQMD), the California Air Resources Board (ARB), and SCAG collaboratively completed the difficult task of developing a plan to achieve the federal health-based PM2.5 and ozone standards in the South Coast Air Basin. Implementation of this plan will require vigorous effort and significant resources from both public and private stakeholders.

[1] Personal communication, Richard Bode, California Air Resources Board, 2007.

ATTAINMENT OF AIR QUALITY STANDARDS

Much of the region continues to exceed the National Ambient Air Quality Standards (NAAQS) identified in the Clean Air Act. The table below summarizes the non-attainment and maintenance areas within the SCAG Region.

TABLE 2.7 SCAG REGION NON-ATTAINMENT AND MAINTENANCE AREAS

Ozone	PM10	PM2.5	CO	NO_2
South Coast Air Basin (SCAB), Coachella Valley portion of Salton Sea Air Basin (SSAB), Ventura County portion of South Central Coast Air Basin (SCCAB), Western portion of Mojave Desert Air Basin (MDAB), Imperial County portion of SSAB	SCAB Coachella Valley portion of SSAB San Bernardino portion of MDAB Imperial County portion of SSAB	SCAB	SCAB	SCAB



Further, as demonstrated by the recent AQMP/SIP efforts of local air districts and the ARB, the region's efforts to attain the NAAQS continue to be challenging, as the South Coast Air Basin, the Ventura County portion of the South Central Coast Air Basin, the Western Mojave Air Basin, and the Riverside County portion (Coachella) and the Imperial County portion of the Salton Sea Air Basin will all be "bumping up" to worse ozone non-attainment designations since they cannot achieve the NAAQS in the time previously assumed. Further, the attainment plan to meet the ozone standard in the South Coast Air Basin includes undefined long-term ("black box") measures of approximately 200 tons per day of nitrogen oxides (NOx), which is a daunting amount of as-yet-unidentified emission reductions. Of additional concern are the upcoming 24-hour PM2.5 standards, which will require even greater reductions as well as possibly more stringent ozone standards. Consequently, the ARB, SCAQMD, and SCAG are committed to producing a white paper that identifies strategies to address the shortfall issues. Furthermore, there are strategies and programs in this Plan that will be incorporated into the white paper.

AIR QUALITY IMPACTS AND PROJECT IMPLEMENTATION

Another important consideration for air quality and transportation planning is the general inability of project sponsors to move proposed projects through the environmental review process. Community opposition is demanding mitigation of emissions from existing as well as future transportation facilities. Of equal concern, the failure to implement adequate SIPs for the region could result in federal sanctions, such as a ban on approval of new highway projects, loss of highway funding, and restrict our ability to spend local and private dollars, as well as more stringent emissions offsets for stationary sources.

Given the challenges that lie ahead, increased public awareness and a reinvigorated collaborative effort from all agencies and stakeholders are critical to bring this region into attainment of the federal air quality standards and to begin to address greenhouse gas (GHG) reduction targets. SCAG's contribution to this collaborative effort is essential, as emissions reductions from





goods movement, marine ports, aviation and land use have come to be front and center of the air quality challenge.

Climate Change

In addition to the aforementioned challenges, efforts to reduce GHGs will present another tremendous challenge to the transportation sector. Transportation is the largest source of GHG emissions in California, representing 38 percent of emissions (Figure 2.13), and emissions from the transportation sector have grown more rapidly than other sources over the past ten years.[2] California is the second-largest emitter of GHG emissions in the United States and the twelfth-largest emitter in the world, exceeding most nations. The Intergovernmental Panel on Climate Change of the United Nations has found overwhelming evidence that global climate change is occurring and is caused by human activity.[3] Global climate change involves an increase in the average atmospheric temperature of the earth caused by an enhanced greenhouse effect. Changes to the atmospheric temperatures would likely cause an increase in sea levels and alter weather patterns, thereby increasing the frequency and severity of extreme weather worldwide. Climate change also poses serious risks to our economy, water supply, biodiversity, and public health.[4]

These potentially catastrophic impacts have led to new efforts to reduce the amount of GHG emissions released into the atmosphere. In 2006, California passed the Global Warming Solutions Act, or AB 32, which requires a reduction of the state's GHG emissions to 1990 levels by 2020. This emissions target is equal to a 25% reduction from current levels. Longer-term targets have also been set through Executive Order S-3-05, which calls for a reduction of GHG emissions to 80% below 1990 levels by 2050. These reduction targets will have implications on the transportation sector and alter the way we fuel our future. For example, California's Low Carbon Fuel Standard (Executive Order S-01-07) requires a reduction in the carbon intensity of California's passenger vehicle fuels by at least 10 percent by 2020. The California Air Resources Board identified the Low Carbon Fuel Standards as a discrete early action item under AB 32, with a regulation to be adopted and implemented by 2010. Other transportation-related discrete early action items include green ports, Smart Way truck efficiency, and a tire inflation program.[5] In addition, AB 1007 requires the development and adoption of a state plan to increase the use of alternative transportation fuels by establishing a roadmap to help reduce our dependence on foreign oil. The State Alternative Fuels Plan was adopted by the California Energy Commission on December 5, 2007.

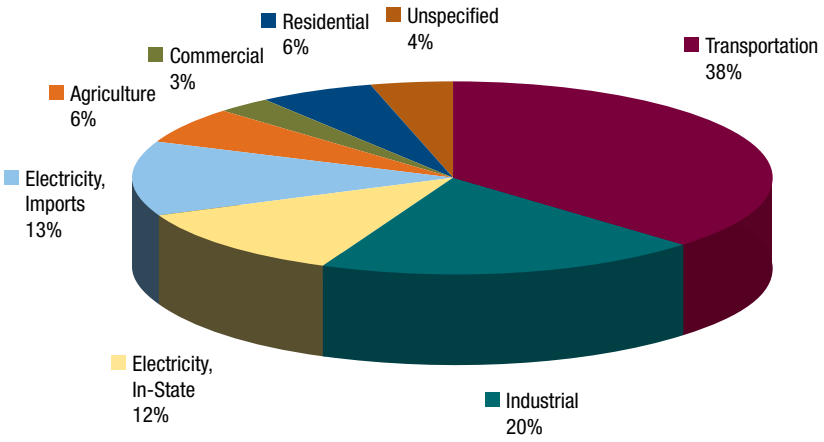
[2] California Air Resources Board, Greenhouse Gas Emissions Inventory (November 2007); United States Department of Transportation, Federal Highway Administration. Transportation and Global Climate Change: A Review and Analysis of the Literature. (June 1998.) DOT-T-97-03.

[3] Intergovernmental Panel on Climate Change. (February 2007.) Fourth Assessment Report of the IPCC, Climate Change 2007: The Physical Science Basis, Summary for Policy Makers.

[4] California Energy Commission. Our Changing Climate: Assessing the Risks to California (July 2006) CEC-500-2006-077. Retrieved March 26, 2007, from http://www.energy.ca.gov/2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF

[5] California Air Resources Board. Expanded List of Early Action Measures to Reduce GHG Emissions in California Recommended for Board Consideration. October 2007.

FIGURE 2.13 2004 CALIFORNIA CLIMATE GREENHOUSE GAS EMISSIONS BY SECTOR



Source: California Air Resources Board, Greenhouse Gas Emissions Inventory (November 2007)

Energy

Environmental and geopolitical factors are causing energy experts to question the long-term viability of a fossil fuel-based energy future. The 2008 RTP begins to recognize the uncertainty of petroleum-based future, and seeks to better understand the implications of potential energy constraints. Travel demand forecasts generally assume that the future will include an abundant and relatively inexpensive supply of transportation fuels. If transportation fuel prices continue to increase, it would have a ripple effect on numerous areas including construction costs, gas tax revenue, travel and aviation demand, air emissions, mode choice and growth patterns. One area of uncertainty is how commuters may respond to higher gasoline prices. For example, a recent study suggests that with a ten percent increase in the gas price, there is a less than one percent change in gas consumption,[6] while other data show that an increase in gas prices coincides with an increase in transit ridership.[7] In addition, growth patterns may alter future demand for transportation fuels. Mixed land uses (i.e., residential developments near work places, restaurants, and shopping centers) with access to public transportation have been shown to save consumers over 500 gallons of gasoline per year.[8] Energy uncertainty requires serious consideration and further study. SCAG, with input from stakeholders, will continue to research the relationship between transportation, land use and energy uncertainty. The following issues have been recommended for additional study and deliberation prior to development of the next Regional Transportation Plan:

- How the price and availability of transportation fuels affects revenues and demand
- How increases in fuel efficiency could affect revenues and emissions

[6] Jonathan Hughes, Christopher R. Knittel, and Dan Sperling, "Evidence of a Shift in the Short-Run Price Elasticity of Gasoline Demand," February 14, 2007.

[7] California Energy Commission. Weekly Fuel Prices 1996-2007 and SCAG Transit Ridership data.

[8] Victoria Transport Policy Institute. Transportation Demand Management Encyclopedia.

- How the cost of commuting and personal travel affects mode choice and growth patterns
- How the cost of goods movement affects international trade and employment, and
- How the escalation of fuel prices affects the cost of infrastructure construction, maintenance and operation

Transportation Finance Challenges

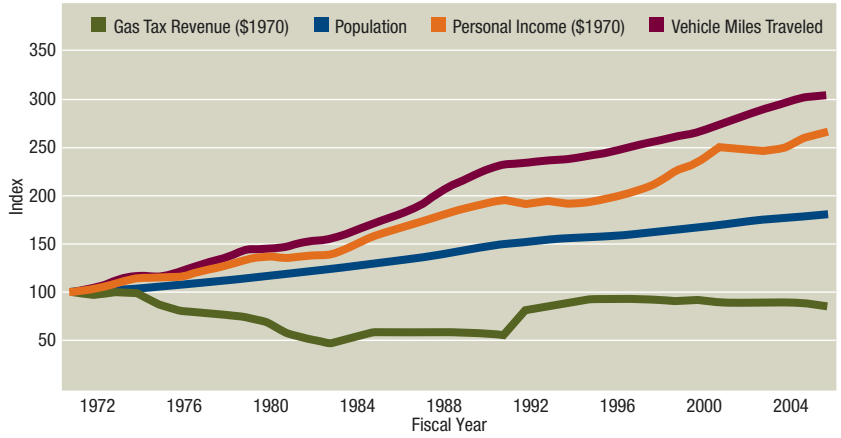
ONGOING FISCAL CHALLENGES

The SCAG Region continues to face shortfalls in transportation funding. The following briefly describes current and projected challenges that are likely to impact transportation revenues flowing to the region.

EROSION OF GASOLINE TAX REVENUES DUE TO INFLATION

Over the past four decades, transportation revenues (from gasoline taxes collected per gallon) in California have not kept pace with the state's ever-evolving demographic characteristics. Figure 2.14 shows how these tax revenues have fluctuated in real-dollar terms (adjusted for inflation) in relation to the steady growth in the demographic indicators. Indicators such as vehicle miles traveled, population, and personal income growth have all outpaced the rate of transportation revenue growth. The largest contributing factor is that the gasoline taxes are collected in cents per gallon. Without periodic adjustment or indexing, these funds will not keep pace with needs. Although the passage and recent renewal of local "self-help" transportation sales taxes have greatly improved funding for transportation, gasoline tax revenues continue to decline in value due to inflation.

FIGURE 2.14 REVENUE AND DEMAND TRENDS IN THE SCAG REGION



Sources: California Department of Transportation, California Department of Finance, U.S. Department of Labor

STATUS OF THE STATE HIGHWAY ACCOUNT

The viability of the State Highway Account remains a critical issue. The state's gasoline tax revenues are now exclusively dedicated to funding the needs of the State Highway Operation and Protection Program (SHOPP)—at a level, however, that is considerably less than actual needs. Continued underinvestment in the rehabilitation and maintenance needs of the State Highway System has serious ramifications—rapidly increasing the number of distressed lane-miles on the State Highway System and eroding the condition of the state's bridges. In recent years, transportation has relied heavily on the State General Fund to pay for capacity-enhancing projects. For example, funding for the State Transportation Improvement Program (STIP) has been dependent on Proposition 42 transfers (sales tax on gasoline). Reliance on the State General Fund means that transportation funding is subject to the state's annual budget process, which can be lengthy and unpredictable. Although the

recently passed transportation bond measure (Proposition 1B) serves as an important down payment, reliable and sustainable funding sources for transportation are necessary to meet the needs of a growing population.

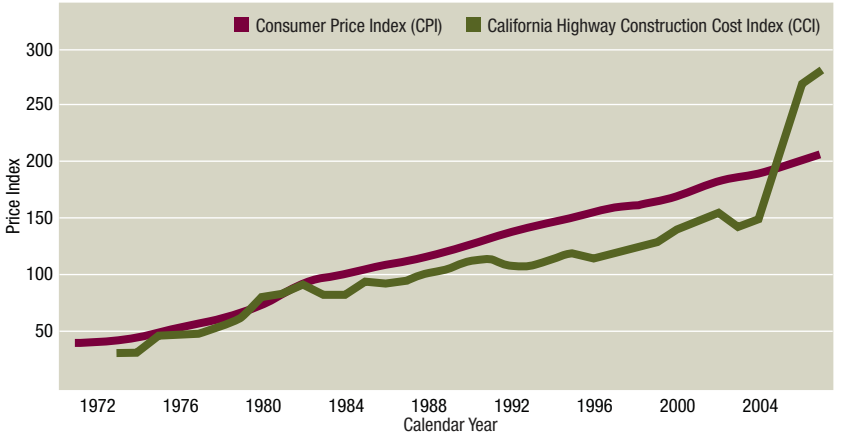
STATUS OF THE FEDERAL HIGHWAY TRUST FUND

The need to establish a reliable and sustainable transportation funding source is even stronger, as the Federal Highway Trust Fund may not have enough resources to meet all of its obligations by the end of the decade. Expenditures authorized under SAFETEA-LU have outstripped revenues generated by the federal per-gallon gasoline tax. As a result, the viability of the Highway Trust Fund will be a critical issue in discussions for the next round of the federal transportation reauthorization legislation, which will start in 2009.

CONSTRUCTION COST INCREASES

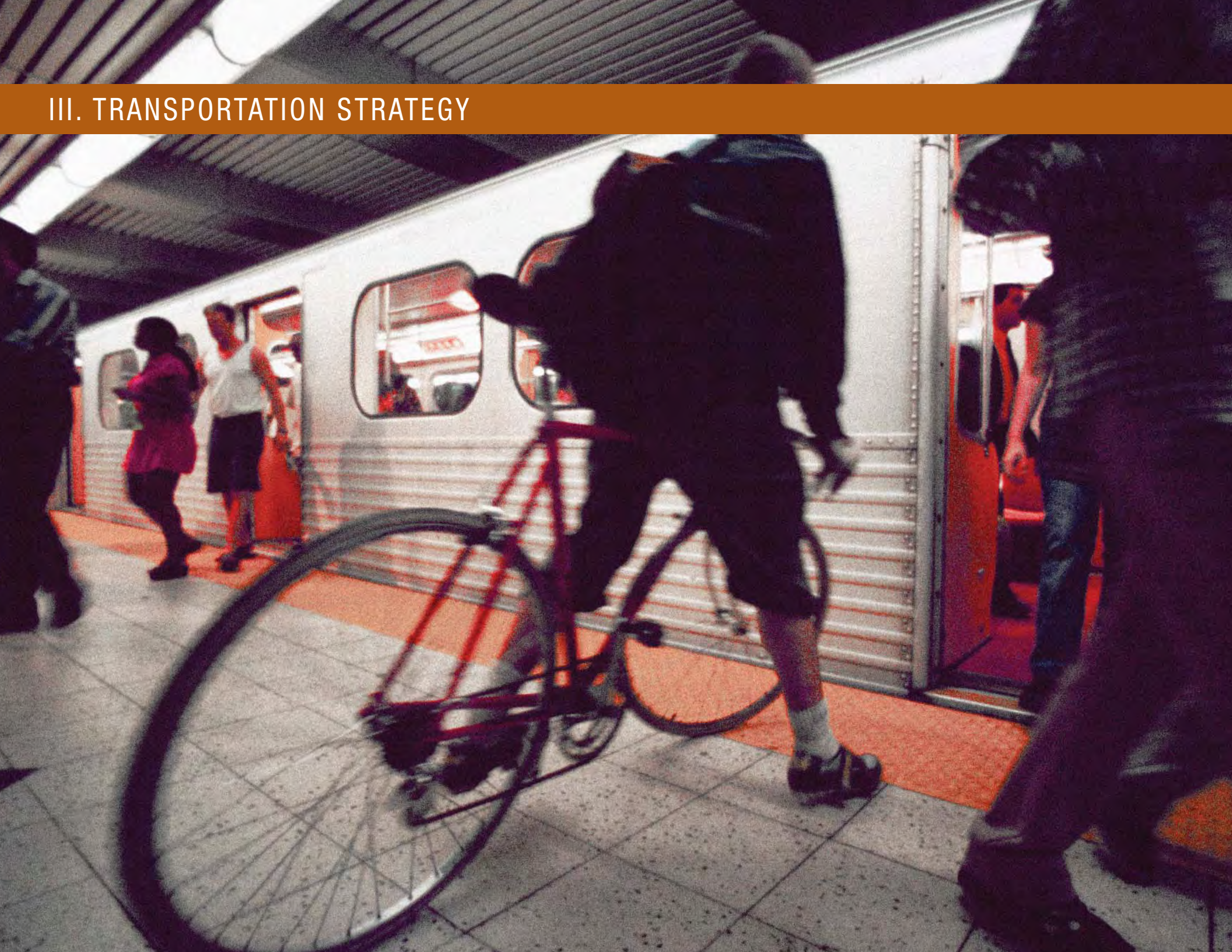
Over the last four years, construction costs in California and the nation have increased at an unprecedented rate and much faster than general inflation. Figure 2.15 shows increases in the California Highway Construction Cost Index since the 1970s compared to the Consumer Price Index. The recent run-up in construction prices is due to a variety of factors, including a residential and commercial building boom as well as higher demand for construction materials in developing countries, most notably, China. Although these trends are likely to fluctuate, they have caused many transportation projects to exceed their budgets in the short term and made long-term project cost forecasting uncertain.

FIGURE 2.15 CALIFORNIA HIGHWAY CONSTRUCTION COST & CONSUMER PRICE INDEX TRENDS



Source: California Department of Transportation and U.S. Bureau of Labor Statistics

III. TRANSPORTATION STRATEGY



The mobility challenges presented in Chapter II are linked to the continued growth of the SCAG Region. The demographic, economic, and geographic constraints unique to our region exacerbate the condition of an already burdened transportation system. To address these challenges, this chapter identifies the policies, strategies, and investments necessary to maintain, manage, and improve the region's transportation system through the year 2035. This vision reflects a regional consensus achieved over the last four years.

This chapter is organized into three main sections. The first section discusses SCAG's efforts to enhance transportation security and safety measures in the region, and specifically lists SCAG's responsibilities in emergency preparedness. The second section describes the various transportation strategies the SCAG Region has agreed to fund and implement through 2035. Particular focus is given towards the regional goods movement system because of the critical impact it has on the region's mobility, economy, and public health. The complete listing of RTP investments is contained in the separate RTP Project List available at www.scag.ca.gov. The third and last section identifies the environmental impacts posed by the transportation strategies listed in this chapter, and describes feasible approaches to mitigate those impacts.

Security and Safety First

TRANSPORTATION SECURITY

The SCAG Region is vulnerable to many types of catastrophic events including earthquakes, floods, fires, hazardous material incidents, dam failures, civil unrest, transportation accidents, tsunamis and terrorism.

California, through hard experience, has in place an emergency and response structure designed to be innovative for the different locations and types of emergencies. There are many agencies that will participate in the response to a disastrous event and ensure that their jurisdictions are prepared to respond to these hazards. To assist in this effort, this chapter identifies SCAG's potential role and responsibility in regards to the relationship between transportation and emergency preparedness.

SECURITY AND EMERGENCY PREPAREDNESS

SCAG's Regional Preparedness Goal is stated as, "to achieve and sustain at-risk target levels of capability to prevent, protect against, respond to, and recover from major human-caused or natural events in order to minimize the threat and impact to lives, property, and the region."

SCAG'S ROLE

SCAG does not intend to undertake a first response or emergency management role. As a metropolitan planning organization (MPO), SCAG is limited to essentially three roles:

1. Provide a policy forum to help develop regional consensus and education on security policies and emergency response
2. Assist in the planning and programming of transportation infrastructure repairs, and
3. Leverage projects and planning functions (including Intelligent Transportation Systems, also known as ITS) that can enhance or provide benefit to transportation security efforts and those responsible for planning and responding to emergencies:
   - Integrate security into the regional ITS architecture, and
   - Become a central repository/mirror for regional Geodata that can be used for planning, training, response and relief efforts of law enforcement personnel and emergency responders

POLICIES

Within the goal of transportation security, SCAG aims to help prevent, protect from, respond to, and recover from major human-caused or natural events in order to minimize the threat and impact to lives, property, the transportation network and the regional economy.

Through stakeholder input, the Southern California Association of Governments (SCAG) developed an action plan and constrained policies detailing nine measures that the agency will undertake in the region's transportation security planning.

1. SCAG should help ensure the rapid repair of transportation infrastructure in the event of an emergency.
    a. SCAG, in cooperation with local and state agencies, should identify critical infrastructure needs necessary for: a) emergency responders to enter the region; b) evacuation of affected facilities; and c) restoration of utilities.
    b. SCAG, in cooperation with CTCs, California, and the federal government, should develop a transportation recovery plan for the emergency awarding of contracts to rapidly and efficiently repair damaged infrastructure.
2. SCAG should continue to deploy and promote the use of intelligent transportation system technologies that enhance transportation security.
    a. SCAG should work to expand the use of ITS to improve surveillance, monitoring and distress notification systems and to assist in the rapid evacuation of disaster areas.
    b. SCAG should incorporate security into the Regional ITS Architecture.
    c. Transit operators should incorporate ITS technologies as part of their security and emergency preparedness and share that information with other operators.
    d. Aside from deploying ITS technologies for advanced customer information, transit agencies should work intensely with ethnic, local and disenfranchised communities through public information/outreach sessions ensuring public participation is utilized to its fullest. In case of evacuation, these transit-dependent persons may need additional assistance to evacuate to safety.



3. SCAG should establish transportation infrastructure practices that promote and enhance security.
    a. SCAG should work with transportation operators to plan and coordinate transportation projects, as appropriate, with the Department of Homeland Security grant projects, to enhance the regional transit security strategy (RTSS).

b. SCAG should establish transportation infrastructure practices that identify and prioritize the design, retrofit, hardening, and stabilization of critical transportation infrastructure to prevent failure; to minimize loss of life and property, injuries; and avoid long-term economic disruption.

c. SCAG should establish a Transportation Security Working Group (TSWG) with goals of RTP consistency with RTSS, and to find ways SCAG programs can enhance RTSS.

4. SCAG should establish a forum where policy-makers can be educated and regional policy can be developed.

   a. SCAG should work with local officials to develop regional consensus on regional transportation safety, security, and safety/security policies.

5. SCAG will help enhance the region's ability to deter and respond to acts of terrorism and human-caused or natural disasters through regionally cooperative and collaborative strategies.

   a. SCAG should work with local officials to develop regional consensus on regional transportation safety, security, and safety/security policies.

   b. SCAG should encourage all SCAG elected officials to be educated in National Incident Management System (NIMS).

   c. SCAG should work with partner agencies and federal, state and local jurisdictions to improve communications and interoperability and to find opportunities to leverage and effectively utilize transportation and public safety/security resources in support of this effort.

6. SCAG will work to enhance emergency preparedness awareness among public agencies and with the public at large.

   a. SCAG should work with local officials to develop regional consensus on regional transportation safety, security, and safety/security policies.



7. SCAG should work to improve the effectiveness of regional plans by maximizing the sharing and coordination of resources that would allow for proper response by public agencies.

   a. SCAG should encourage and provide a forum for local jurisdictions to develop mutual aid agreements for essential government services during any incident recovery.

8. SCAG will help to enhance the capabilities of local and regional organizations, including first responders, through provision and sharing of information.
    a. SCAG should work with local agencies to collect regional GeoData in a common format, and provide access to the GeoData for emergency planning, training and response.
    b. SCAG should establish a forum for cooperation and coordination of these plans and programs among the regional partners including first responders and operations agencies.
    c. SCAG should develop and establish a regional information sharing strategy, linking SCAG and its member jurisdictions for ongoing sharing and provision of information pertaining to the region's transportation system and other critical infrastructure.
9. SCAG should provide the means for collaboration in planning, communication, and information sharing before, during, or after a regional emergency.
    a. SCAG should develop and incorporate strategies and actions pertaining to response and prevention of security incidents and events as part of the ongoing regional planning activities.
    b. SCAG should offer a regional repository of GIS data for use by local agencies in emergency planning and response in a standardized format.
    c. SCAG should enter into mutual aid agreements with other MPOs to provide this data, in coordination with the California OES in the event that an event disrupts SCAG's ability to function.

TRANSPORTATION SAFETY

The safety of the region's multimodal system is a critical priority for SCAG and the California Department of Transportation (Caltrans), which owns and operates the State Highway System. When examined historically, fatal and injury collisions (rate per million vehicle miles traveled) have steadily decreased in California since the 1930s.

While traffic fatalities in the SCAG Region are below the rest of California (the SCAG Region represents almost half of California's population), the number of fatalities has increased every year since 1999 after declining in the latter part of the 1990s.

In 2005, just over 1,800 people in the SCAG Region were killed in traffic accidents. Statewide, 4,304 were killed. Every year since 2002, the total number of traffic injuries in the SCAG Region has surpassed that in the rest of the state. Much of that can be attributed to the growth in vehicle miles traveled.

Additionally, in 2005, 372 pedestrians and 66 bicyclists were killed in the SCAG Region, representing 50 percent of pedestrians and 57 percent of bicyclists killed in California.

The 2008 RTP continues the commitment to improve safety for the region. In 2007, the region fully funded highway collision reduction and emergency response needs, estimated at $317 million and $110 million, respectively. This was the only category that was fully funded. Activities within this category include the construction of median barriers and response to landslides, as depicted in Exhibits 3.1.1 and 3.1.2.

EXHIBIT 3.1.1 HIGHWAY COLLISION REDUCTION MEASURES

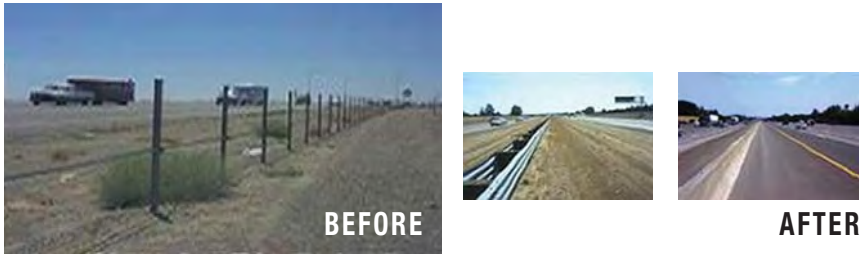


EXHIBIT 3.1.2 EMERGENCY RESPONSE NEEDS



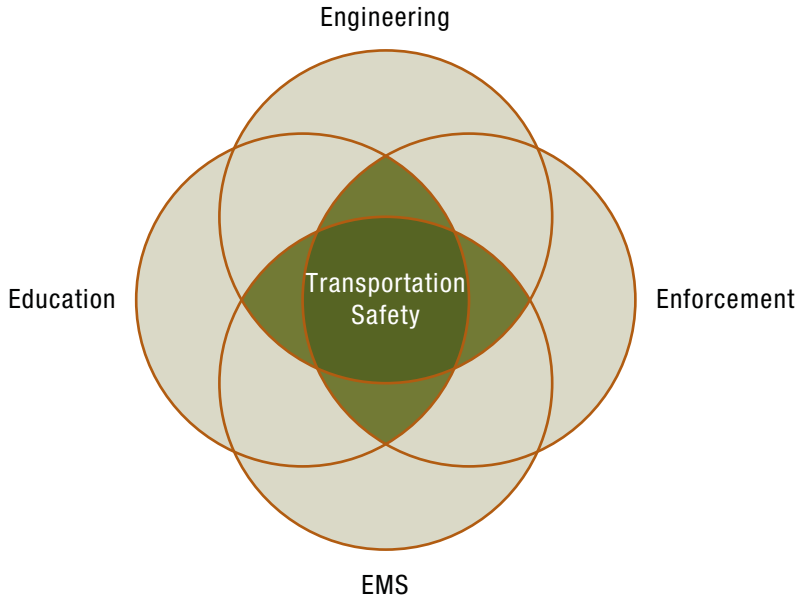
Through 2035, the RTP forecasts expenditures of $10 billion for safety-related projects and services. This is in addition to safety standards considered as part of every project design. The scope of this RTP goes beyond specific funding for safety preparedness or emergency response. It emphasizes the collaboration among SCAG, Caltrans, and their stakeholders to examine safety on a system basis so the region can use all the tools available to decrease traffic injuries and fatalities. The result of this collaboration is the California Strategic Highway Safety Plan.

CALIFORNIA STRATEGIC HIGHWAY SAFETY PLAN

In 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was passed. The legislation required that each state develop a Strategic Highway Safety Plan (SHSP) and that all metropolitan long-range transportation plans should be consistent with the SHSP.

When addressing transportation safety, the four Es are frequently referenced to describe the multidisciplinary nature of transportation safety planning. The four Es are Engineering, Education, Emergency Medical Services (EMS), and Enforcement. The area in which planners have the most ability to effect change is likely to be engineering and the development of physical improvements to the transportation system.[1]

FIGURE 3.1 THE FOUR "E" ELEMENTS IN TRANSPORTATION SAFETY PLANNING



Additionally, a fifth E, or Evaluation, can be applied to this paradigm. Evaluation refers to monitoring and reviewing the effectiveness of the other four Es, allowing modifications where applicable. The California draft SHSP lists 16 challenge areas designed to reduce accidents, fatalities and injuries. Figure 3.2 presents the 16 Challenge Areas and resultant strategies that were developed during several workshops held by Caltrans for various stakeholder agen-

[1] Transportation Planner's Safety Desk Reference, Report No. FHWA-HEP-07-005.

FIGURE 3.2 CHALLENGE AREAS AND THE CORRESPONDING REGIONAL RESPONSE AS OUTLINED IN THE STRATEGIC HIGHWAY SAFETY PLAN (SHSP)

SAFETEA-LU requires that the region's plan be consistent with the California Strategic Highway Safety Plan

SHSP Challenge Area	RTP Discussion	Regional Response
• Reduce the Occurrence and Consequence of leaving the roadway and head-on collisions • Improve Driver Decisions about Rights of Way and Turning • Improve Intersection and Interchange Safety for Roadway Users • Make Walking and Street Crossing Safer • Improve Safety for Older Roadway Users • Improve Commercial Vehicle Safety • Improve Bicycle Safety	In Safety Chapter	• Identify projects that address safety in designated "hot spots" • Encourage transportation projects that specifically enhance safety or complement education, enforcement or EMS for each challenge area • Request RTP project submissions that identify the portion of the project that is applied to safety elements and/or project components for motorized and non-motorized users, including older drivers, bicyclists and pedestrians.
• Reduce Impaired Driving Related Fatalities • Ensure Drivers are Licensed and Competent • Increase Use of Safety Belts and Child Safety Seats • Reduce Young Driver Fatalities • Reduce Speeding and Aggressive Driving • Improve Motorcycle Safety • Enhance Work Zone Safety • Improve Post Crash Survivability • Improve Safety Data Collection, Access and Analysis	Outside of SCAG's RTP Role	• Endorse Cooperation with regional and local law enforcement, emergency response and education agencies as they address these transportation safety challenges. • Work with the state and county transportation commissions to determine if various project submissions have potential benefit to safety in these challenge areas.

cies statewide, including SCAG. Each Challenge Area contains the following elements:

- Establishment of a goal for improving safety by 2010
- Background information on the Challenge Area including a history of fatalities from 1995 – 2004
- Strategies being considered for implementation to achieve the Challenge Area goal
- Institutional and other issues that could affect the success of the implementation

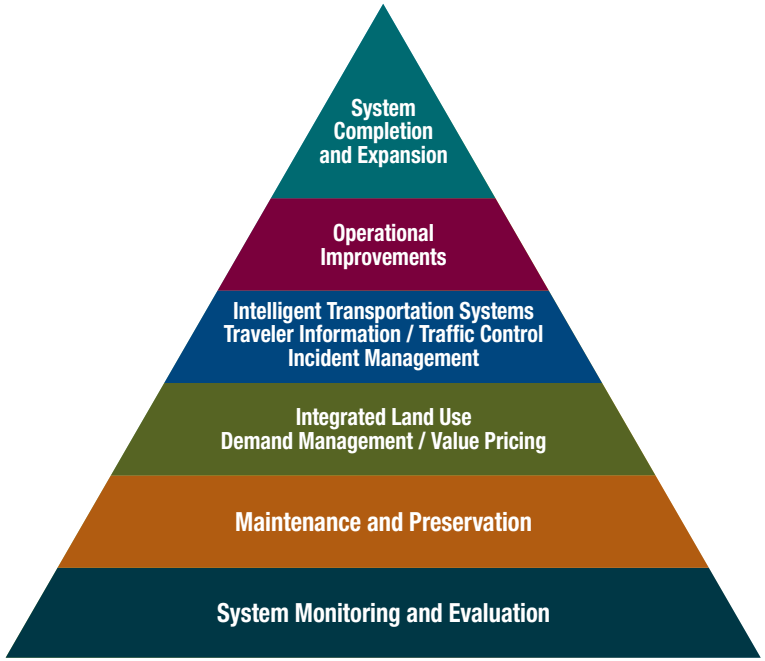
Separate security and safety reports elaborate on the contents of this table.

Managing Our Transportation System Wisely

The region recognizes that maintaining and improving mobility will no longer depend solely on its ability to expand its multimodal transportation system. Instead, an integrated approach--based on the statewide GoCalifornia initiative--is needed to maximize mobility. Depicted in Figure 3.3, the five elements of the pyramid represent integrated strategies that work cooperatively to maximize mobility. The pyramid depicts the idea that transportation investments would have more impact if they were prioritized strategically as suggested. System monitoring and evaluation is the basic foundation upon which the other strategies are built. System expansion and completion will provide the desired mobility benefits to the extent that investments in, and implementation of, the strategies below it achieve progress. An improvement in mobility will occur when strategic investments in each of the elements are coordinated between the elements. The mobility pyramid provides the framework for the discussion of the RTP's transportation investment strategies.

Complementing our transportation investment philosophy is the performance-measures approach utilized in developing this Plan. While the pyramid approach ensures that our funding priorities are clear and rational, performance measures ensure that the best performing projects are included in the Plan for funding.

FIGURE 3.3 MOBILITY PYRAMID



SYSTEM MONITORING AND EVALUATION

In order to be effective system managers, we must have an in-depth understanding of how our system performs and why it performs that way. For instance, we all know congestion is a problem in the region. But we must also be able to quantify congestion and understand its various causes. Only by understanding these causes can we identify the optimal mix of strategies and projects that yield the highest returns on the region's investments. The same holds true for transit, goods movement, and aviation.

The base of the mobility pyramid, entitled "System Monitoring and Evaluation," is the foundation of sound system management. It calls for the use of

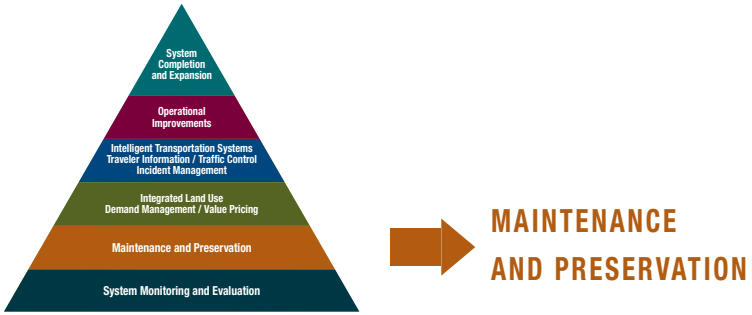
performance measures to track and monitor the progress of the transportation system so that the region can make informed decisions regarding transportation investments. Transportation professionals and decision-makers have recently committed to improving the region's ability to properly fund the investments needed to comprehensively monitor and evaluate system performance. These investments include detection, closed-circuit television systems, bus global positioning systems, and automatic ridership counting



systems. Although funding is modest for these activities, they lead to more informed decisions. Further discussion of system monitoring is contained in Chapter VI.

As we move forward, our focus will evolve into a comprehensive system management approach, which aims to protect, maximize the productivity of, and strategically expand our transportation system.

PROTECTING OUR REGION'S TRANSPORTATION ASSETS



Over the decades, the region has invested hundreds of billions of dollars in our multimodal transportation system. The system is now aging and requires immediate attention. Preserving our assets is a critical priority of this RTP.

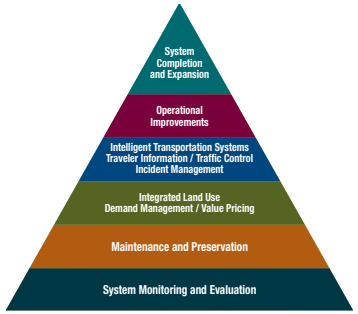
In a sense, the region must make up for past funding shortfalls. As discussed in Chapter II, roadway expenditures have not kept up with demand over the last three decades. As a result, we have not properly funded roadway preservation needs. The recent passage of the Infrastructure Bond injected much needed funding to highway preservation. However, SCAG estimates that an additional $30 billion is required to bring the system into a comprehensive state of adequate repair.

SCAG also estimates that an additional $10 billion is required for arterials and transit preservation needs. The subsequent shortfall for highway, arterial, and transit preservation needs totals $40 billion. Deferring maintenance only increases this shortfall over time.

Recognizing that every dollar expended today to address this shortfall would save much more in the future, the region committed $8 billion of new funding to preservation, thereby addressing at least 20 percent of preservation needs. As more funding becomes available, additional commitments will be made. These additional investments will ensure that over the next thirty years, our infrastructure will be in a better condition than it is today. This also

means that user costs (e.g., vehicle maintenance costs) will decline compared to today.

SCAG will continue to work with its stakeholders, particularly county transportation commissions and Caltrans, to prioritize funding for preservation and maintenance.



INTEGRATED LAND USE AND DEMAND MANAGEMENT

The next set of strategies on the mobility pyramid focus on better managing demand on the transportation system through the integrated growth forecast, a statement of advisory land use policies and strategies, and encouraging alternative modes of travel.

INTEGRATED GROWTH FORECAST

In February 2005, SCAG initiated the 2008 RTP Growth Forecast Update Process, now known as the 2008 "Integrated Growth Forecasting" process. The resulting Baseline Growth Forecast established the projected population, employment, households and housing units for use in the 2008 RTP.

The Baseline Growth Forecast sets the stage for a future regional growth scenario, as it ties housing to transportation planning, considering both needs simultaneously in communities throughout the region. This approach ensures that the resulting assumptions are consistent with planned transportation infrastructure. Based on a combination of recent and past trends, reasonable key technical assumptions, and existing and new local policy options, the Baseline Growth Forecast provides the basis for developing the land use





assumptions at the regional and small-area levels which build the 2008 RTP Plan Alternative. A detailed description of the growth forecast methodology is available in the 2008 RTP Growth Forecast Report.

Advisory Land Use Policies and Strategies

The 2008 RTP Plan Alternative incorporates the Baseline Growth Forecast and the approved transportation network. However, in the rapidly growing SCAG Region, these trends could be tempered, and in some cases bolstered, by policies and strategies designed to improve future travel patterns and vehicle emissions. In response, SCAG adopted a set of advisory land use policies and strategies for future regional planning efforts and for localities to consider as they accommodate future growth. These policies and strategies were founded upon the principles developed through the regional growth visioning efforts begun in 2001.

- **Identify regional strategic areas for infill and investment**

  Identify strategic opportunity areas for infill development of aging and underutilized areas and increased investment in order to accommodate future growth. This strategy makes efficient use of existing and planned infrastructure, revitalizes communities, and maintains or improves quality of life.

  Strategic areas are primarily identified as those with potential for:

  - Transit-oriented development (TOD)
  - Existing and emerging centers
  - Small mixed-use areas

- **Structure the plan on a three-tiered system of centers development**

  Identify strategic centers based on a three-tiered system of existing, planned, and potential, relative to transportation infrastructure. This strategy more effectively integrates land use planning and transportation investment.

- **Develop "complete communities"**

  Create mixed-use districts or "complete communities" in strategic growth areas through a concentration of activities with housing, employment, and a mix of retail and services, located in close proximity to each other. Focusing a mix of land uses in strategic growth areas creates complete communities wherein most daily needs can be met within a short distance of home, providing residents with the opportunity to patronize their local area and run daily errands by walking or cycling rather traveling by automobile.

- **Develop nodes on a corridor**

  Intensify nodes along corridors with people-scaled, mixed-use developments. Many existing corridors lack the residential and commercial concentration to adequately support non-auto transit uses, without which the existing transit system cannot fully realize its potential for accommodating additional trips and relieving the transportation system. These nodes along the corridor also create vibrant, walkable communities with localized access to amenities, further reducing reliance on the automobile for a variety of trips.

- **Plan for additional housing and jobs near transit**

  Pedestrian-friendly environments and more compact development patterns in close proximity to transit serve to support and improve transit use and ridership. Focusing housing and employment growth in transit-accessible locations through this transit-oriented development approach will serve to reduce auto use and support more multimodal travel behavior.

- **Plan for a changing demand in types of housing**

  Shifts in the labor force, as the large cohort of aging "baby boomers" retires over the next 15 years and is replaced by new immigrants and "echo boomers," will likely induce a demand shift in the housing market for additional development types such as multi-family and infill housing in central locations, appealing to the needs and lifestyles of these large populations.

- **Continue to protect stable existing single-family areas**

  Continue to protect stable existing single-family neighborhoods as future growth and a more diverse housing stock are accommodated in infill locations near transit stations, in nodes along corridors and in existing centers. Concurrently, focusing growth in central areas and maintaining less development in outlying areas preserves the housing option for large-lot single-family homes, while reducing the number of long trips and vehicle miles traveled to employment centers.

- **Ensure adequate access to open space and preservation of habitat**

  Ensure access to open space and habitat preservation despite competing quality-of-life demands driven by growth, housing and employment needs, and traditional development patterns. Development patterns that focus growth in centers and corridors make the most efficient use of developed land and minimize encroachment on public open space and natural habitat. This approach would ensure improved access to existing large-scale and neighborhood-scale open space.

- **Incorporate local input and feedback on future growth**

  Continue public outreach efforts and incorporate local input through the Integrated Growth Forecast process. This innovative approach provides a more accurate forecast that integrates future land use and transportation planning through growth projections for population, employment, households and housing units. Public workshops, scenario planning, and stakeholder outreach improve the accuracy and feasibility of pursuing regional plans at the local level.

These policies have evolved since 2001, when SCAG initiated one of the first large-scale regional growth visioning efforts in the nation. Through its Compass Blueprint Growth Vision, SCAG sought to integrate land use and transportation through a consensus-built regional plan. Compass Blueprint was developed with the goal of accommodating the six million additional residents expected by 2030, while improving mobility for all residents, fostering livability in all communities, and enabling prosperity for all people, and promoting sustainability for future generations. The 2004 Growth Vision Alternative was approved and adopted by the Regional Council as the Preferred Growth Alternative for the 2004 Regional Transportation Plan. The Compass Blueprint principles that were established provide the foundation for the advisory land use policies and strategies adopted in the 2008 Regional Transportation Plan.

These advisory policies and strategies encourage changes to the urban form that improve accessibility to transit and create more compact development, which yields a number of transportation benefits to the region, including reductions in travel time, vehicle miles traveled, vehicle hours traveled, and vehicle hours of delay, as well as increased transit use and mode share. All of these effects lead to tangible air quality improvements.

SCAG's Compass Blueprint Program has become a model for turning regional vision into local reality. Since 2004, SCAG has used innovative planning tools, creative strategies and dynamic partnerships to expand its Suite of Services and Demonstration Project consulting services that are available to all local governments in the region, free of charge.

As a voluntary program, SCAG provides these cutting-edge tools, analyses and comprehensive planning services to cities that seek additional technical expertise or strategic planning in order to implement a plan, ordinance or program consistent with the Compass Blueprint Principles.

Popular tools in the Compass Blueprint Suite of Services include photo-morph and 3D video "fly-through" visualizations, a sophisticated "Tipping Point" return-on-investment tool that simulates a developer's pro forma for potential projects and the "Envision" GIS based land use scenario-building tool. Building upon the Suite of Services, Compass Blueprint Demonstration Projects combine public participation, design and financial analysis to produce local plans that respond to community interests and are market feasible, i.e., plans that will be adopted and realized because of their benefits to all stakeholders. Demonstration Projects range from parcel-specific zoning analyses to county-wide plans around transit stations, and include an array of services including tipping point and business functionality analyses, design charrettes and com-

munity workshops, housing prototypes and conceptual land use plans, parking studies, and transit-oriented development strategies.

With an ever-growing portfolio of completed, documented Demonstration Projects, an expanding Suite of Services, and significant improvements to existing tools, implementation efforts have seen sustained improvement since the Growth Vision was adopted. SCAG recently launched "Toolbox Tuesdays," a series of training seminars for local planning staff through which they can learn the skills and software capabilities necessary to build their own in-house capacities for using the Compass Blueprint-developed tools. This transferability is a cornerstone of the implementation strategy. Demonstration Projects are scoped to be just that -- examples for others to emulate. The Compass Blueprint website and annual Awards Program event are other important vehicles for sharing lessons learned. Services have been sought through the Compass Blueprint program for over 50 sites in jurisdictions all over the region.

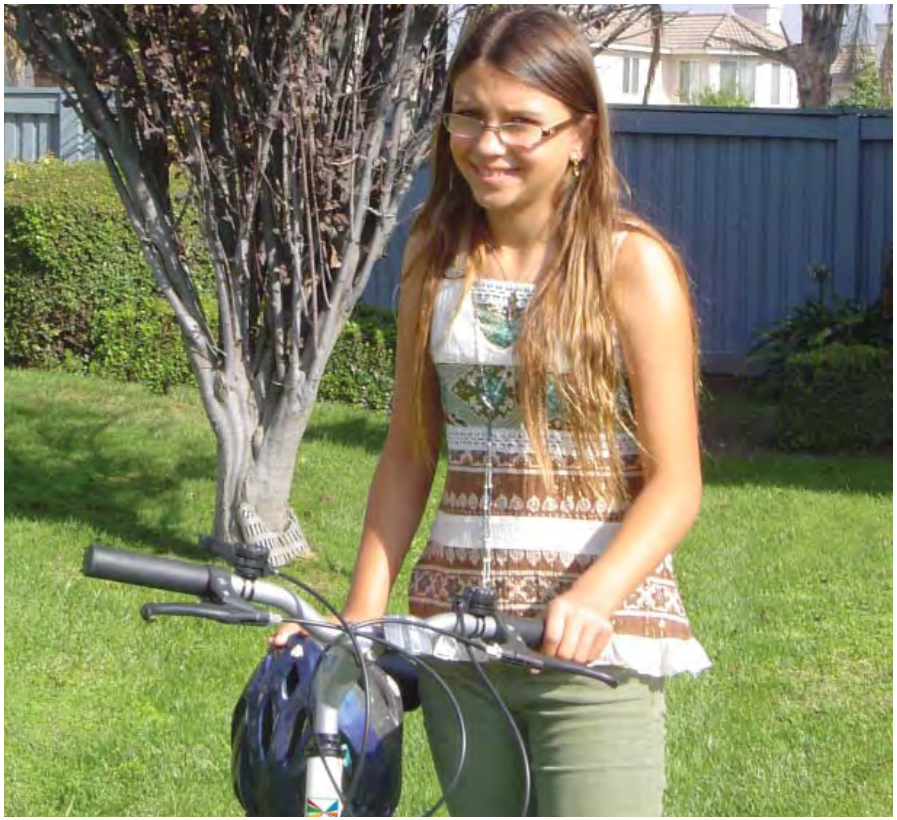
- Azusa
- Baldwin Park
- Brea
- Coachella
- Colton
- Compton
- Corona
- Covina
- El Centro
- El Monte
- Fillmore
- Fontana
- Fullerton
- Glendora
- Hawthorne
- Hemet
- Highland
- Imperial County
- Irwindale
- La Habra
- Lake Elsinore
- Lancaster
- Lawndale
- Los Angeles
- Los Angeles County
- Montclair
- Moreno Valley
- Ontario
- Perris
- Placentia
- Rancho Cucamonga
- Rialto
- Riverside
- Rolling Hills Estates
- San Bernardino
- San Gabriel
- South Pasadena
- Temecula
- Upland
- Ventura (City)
- Ventura County

TRAVEL DEMAND MANAGEMENT

Travel demand management (TDM) strategies are designed to influence an individual's travel behavior by making alternatives to the single-occupant automobile more attractive, especially during peak commute periods. There are two types of TDM strategies: voluntary, or "soft," strategies – such as preferential parking for carpoolers – that aim to lure some to alter their travel behavior in response to voluntary inducements; and "hard" strategies – such as congestion pricing – that shift the behavior of a large number of travelers by changing the price of travel. TDM also can include regulatory strategies, such as regional employer ridesharing mandates.

TDM strategies that encourage the use of alternatives modes of transportation to the single-occupant vehicle include rideshare (carpools and vanpools), transit (bus and rail), and non-motorized modes (bicycling and walking). Additional TDM strategies include alternative work-hour programs, such as compressed work-week programs, flextime (variable work schedules), and work at home (telework-part time and home-based businesses/self-employed-full time) and parking management (preferential parking for carpoolers and parking pricing). Providing the public with reliable and timely traveler information is an operational strategy that allows people to make better decisions about when and how to travel. Knowledge about current travel conditions on the transportation system can be used by travelers to select among alternatives to driving alone or by avoiding making the trip altogether, which is also known as congestion avoidance.

The potential effectiveness of TDM now and in the future depends largely on social and institutional commitments that cause individual travelers to choose a mode of travel other than solo driving, as well as funding (marketing and incentives that change travel behavior). If we were to do nothing beyond our current efforts, the region would not sustain the current levels of ridesharing, non-motorized and telework/telecommute/work at home, let alone expand them over the 2008 RTP period. The region recognizes the importance of TDM strategies and includes a significant level of funding to meet the TDM goals.



The "soft" strategies identified in this Plan include increasing ridesharing, work at home, and non-motorized transportation. For rideshare, telecommute, and park-n-ride activities, the RTP provides investments of over $1.3 billion through 2035. In the future, we will need to emphasize some of the "hard" strategies, especially parking and congestion pricing. This will require significant analysis, consensus building, and public education. However, pricing benefits have proven to be more sustainable over time and complement the integrated land use strategies adopted by the region.

Increasing Rideshare (Carpool and Vanpool)

The SCAG Region continues to invest heavily in High-Occupancy Vehicle (HOV) infrastructure that provides incentives for commuters to share rides with others. While HOV utilization is growing over time, the percent of total travelers using carpools and vanpools is not. SCAG and its partners will strengthen their efforts to encourage this efficient mode, which reduces travel time and improves air quality. These efforts will include:

- Program public funds in the RTIP to help maintain the public sector share of the existing rideshare market and to increase the number of carpools
- Provide "seamless" intra- and inter-county carpool services to the regional traveler
- Formalize and expand partnerships among public- and private-sector stakeholders to improve delivery of vanpool services regionally
- Increase the number of commuter vanpools through more effective marketing and the provision of non-monetary public-sector incentives
- Identify current dedicated funding sources and work with county transportation commissions and partners on identifying additional new funding sources
- Expand the provision for vanpool services in the region by encouraging employers to offer incentives, and develop policies that encourage employers to provide such services
- Maintain and sustain a regionally coordinated marketing strategy among the public and private sectors to enhance vanpool programs, increase ridership and improve outreach efforts

Increasing Work at Home

Increasing the number of workers who work at home (self-employed, home-based business owners) or who telework/telecommute (wage and salary employees conducting some or all of their work from home) decreases home-based work trips, vehicle-miles of travel, congestion and vehicle emissions. National and regional surveys of those who telecommute indicate that it is a lack of support and trust from "management," rather than the provision of equipment or the desire of workers to telecommute, that hampers the growth

of telecommuting. The 2008 RTP, therefore, recommends the following actions:

- Formalize and expand partnerships among public- and private-sector stakeholders to increase opportunities for wage and salary workers regionally to telecommute in lieu of daily commuting
- Promote telecommuting to increase opportunities for wage and salary workers regionally to telecommute in lieu of daily commuting.

Non-Motorized Transportation

Commuter trips within the region average a self-reported distance to work of 19.2 miles, too far for many bicyclists and all pedestrians. However, the integration between bicycle and transit nodes offers the opportunity to extend the commuting range of bicyclists. In addition to work trips, there are many ways that bicycling and walking are playing an important role in our transportation system. According to the 2001 National Household Travel Survey, in urban areas, 50 percent of all trips were less than 3 miles, and 28 percent of all trips were less than 1 mile. These trips are ideal for biking, walking, and transit or a combination of those modes of travel.



Caltrans photo © Steve DeVorkin

Bicycle transportation infrastructure has a role in regional mobility and air quality improvements. Every single percent of automobile drivers that switch to alternative transportation choice (walking, bicycling, using transit) reduces air pollution, congestion, the need for increasing roadway capacity, and, in the case of walking and bicycling, improves public health.

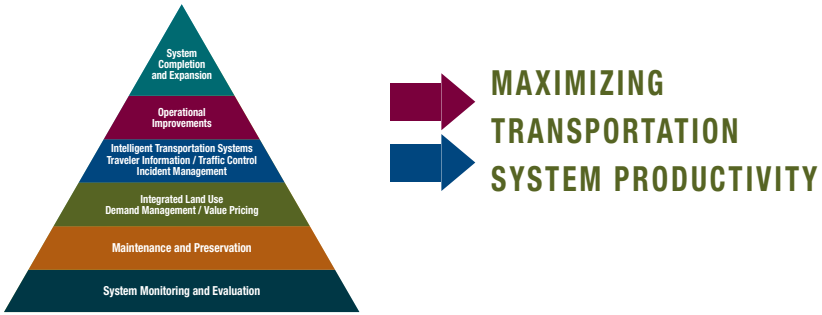
Bicyclist and pedestrian improvements are included as part of many street maintenance and construction projects. These investments and the supporting policies summarized below all aim to maximize the benefits of these efficient modes of transportation.

1. Decrease bicyclist and pedestrian fatalities and injuries in the state to 25% below 2000 levels. Ways to address non-motorized safety were discussed under Transportation Safety.
2. Increase accommodation and planning for bicyclists and pedestrians: The needs of non-motorized travel (including pedestrian, bicyclists and persons with disabilities) need to be fully considered for all transportation planning projects.
3. Increase bicycle and pedestrian use in the SCAG Region as an alternative to utilitarian vehicle trips: Create and maintain an atmosphere conducive to non-motorized transportation, including well-maintained bicycle and pedestrian facilities, easy access to transit facilities, and increasing safety and security. While pedestrian sidewalks are fairly well established in most areas, it is estimated that there are only 3,218 miles of dedicated bicycle facilities in the region, with an additional 3,170 miles planned.
4. Increase non-motorized transportation data: To make non-motorized modes an integral part of the region's intermodal transportation planning process and system, reliable data for planning are needed. Non-motorized transportation data needs include, but are not limited to, comprehensive user statistics; user demographics; bicycle travel pat-

terns/corridors; accident mapping; bikeway system characteristics; and sub regional improvement projects and funding needs.

5. Bicyclists and pedestrians should always be included in general plan updates. SCAG also encourages the development of local Non-Motorized Plans. Also, Non-Motorized Plans that have been created or updated within the previous five years are eligible for bicycle transportation account (BTA) funds. SCAG can assist in the development of these plans through the Compass Blueprint Program.
6. Develop a Regional Non-Motorized Plan: SCAG will work with all counties and their cities to coordinate and integrate all Non-Motorized Plans from counties and jurisdictions in the SCAG Region in a collaborative process, including interested stakeholders.

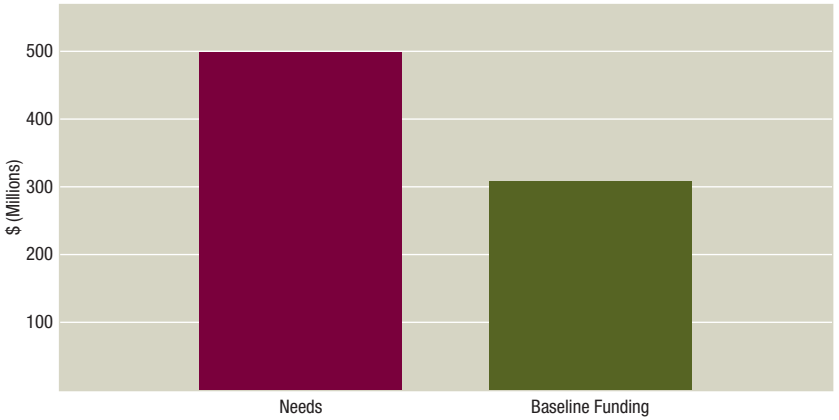
The RTP allocates over $1.8 billion for non-motorized transportation.



The region has built a vast and expensive transportation system. Like any system, it can be operated to be much more productive. Just like a factory can be refined and modernized to produce more output per day or hour, our transportation system can be refined and modernized to carry more people and goods in a day or during peak commute conditions.

Chapter II of this document discussed the lost productivity quantified in terms of "lost lane-miles" on the State Highway System. Similar productivity losses occur for all modes when they are not operated adequately. The investments needed to maximize the productivity of our system through 2035 total $308 million, and include implementation of advanced traffic control strategies (e.g., signal coordination, ramp metering), improved incident management, and smaller physical infrastructure modifications (e.g., auxiliary lanes). Figure 3.4 shows that originally planned investments in operational strategies for the highway system reflect a shortfall of approximately $190 million per year.

FIGURE 3.4 SCAG REGION HIGHWAY OPERATIONS NEEDS VS. BASELINE FUNDING, 2007-2035



Source: SCAG estimates based on Caltrans SHOPP and county transportation commission project submittals

The shortfall through 2035 adds up to $8.4 billion once inflation is taken into account. Similarly, SCAG estimates a deficit of $1.6 billion through 2035 for implementing operational strategies for arterials of regional significance and transit.

Recognizing that funding these provide a higher return on investments than most other transportation projects, this RTP allocates an additional $2 billion, representing 20 percent of the shortfall. As these allocations are programmed and implemented, it is SCAG's hope that the benefits will become apparent to decision-makers and the public, and additional funding is secured to address the remaining shortfall.

SCAG will work with stakeholders, particularly the county transportation commissions and Caltrans, to better determine the benefits and cost effectiveness of operational strategies. SCAG will also continue to partner with Caltrans on corridor system management plans.

Transit Operations

In addition to funding for operations, the 2008 RTP highlights the following policies to improve the performance of the regional transit system.

Strategic Transit Service Policies

In an effort to maximize transit productivity, the 2008 RTP calls upon regional transit operators to address significant challenges to achieve better operational efficiency, maintain a discipline of cost recovery through a consistent fare policy, embrace the use of performance metrics to better serve their existing customer base, and attract new transit users. The Plan encourages the regional transit operators to work cooperatively to offer complementary services, with ease of transfer between modes and operators. It further encourages utilization of new intelligent transportation system (ITS) technologies that measure system performance and offer their customers reliable "on-time" performance and real-time information.

Reliability and On-Time Performance

On-time performance is the key to delivering the greatest customer satisfaction. Wait times are affected by service irregularities and therefore customers are more sensitive to unpredictable delays. Reliability can also be related to transfer times between buses or between modes (bus to train). When customers experience long unscheduled gaps in service and if timely connections are not made, they are less likely to see transit as a viable alternative.

The Plan recommends that SCAG and transit operators analyze and assess the use of ITS technologies to track, report, and improve on-time performance of transit systems. In addition, operators should utilize this data to identify the causes of delay and use it to improve performance of transit systems through operational improvements, rapid bus implementation, and better scheduling of services. SCAG will seek funding in the next OWP (FY08-09) to conduct this assessment.

Transit Service Levels

Frequency of service is also a concern for transit customers. Long waits for service make transit service inconvenient and deter the use of transit. Poor service levels limit the potential use of transit for non-work trips for social, retail, recreational, and tourism purposes. SCAG should work cooperatively with regional and local transit operators to develop service delivery policies to optimize transit service levels, including frequency, coverage, and hours of operation to achieve maximum potential use of our transit investments. SCAG will seek funding in the next OWP (FY08-09) to conduct this assessment.

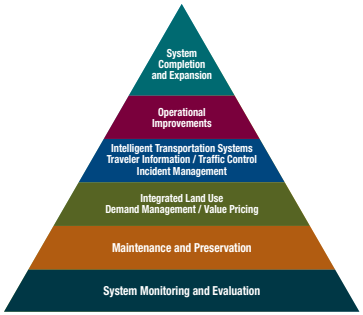
Fare Policies, Fare Media, and Subsidies to Transit

SCAG recommends that an analysis be conducted to identify and recommend appropriate adjustments to transit fares to maximize transit usage, including fare-free concepts. This includes utilizing new automated fare media to allow for ease of transit use; increasing subsidy levels to maximize transit usage; and analyzing regional transit fare policies to assess the proper level of fares, optimal fare media to allow for ease of connectivity among transit systems, appropriate subsidy policies, and appropriate mechanisms to assure stable operational funding to maximize transit use in the region. SCAG will seek funding in the next OWP (FY08-09) to conduct this assessment.

Increase Transit Service Connectivity

SCAG recommends that transit operators assess how to better restructure transit services, as needed, to more effectively connect different urban centers and activities. SCAG also recommends that transit operators assess ways to enhance connectivity and ease of transfer between transit modes. In consultation with transit operators, SCAG will conduct an analysis of transit operations; identify existing and emerging hubs and centers; and analyze how to more effectively ensure optimal coverage, access, and connectivity to regional centers. SCAG will also work with transit operators to develop service poli-

cies and route structures that support the RTP land use concepts, facilitate intermodal transit connectivity, and maximize transit usage. SCAG will seek funding in the next OWP (FY08-09) to conduct this assessment.



SYSTEM COMPLETION AND EXPANSION

Despite the increases in funding commitments to both preservation and operations, more than half of the available transportation revenues in the region are dedicated to the completion and expansion of our people and goods movement transportation systems. This section first summarizes the expansion investments for the SCAG Region by mode, and then presents additional regionally significant expenditures to facilitate and mitigate the movement of goods in the SCAG Region.

HIGHWAY IMPROVEMENTS

Major categories of highway improvements included in the 2008 RTP are High- Occupancy Vehicle (HOV) lanes and connectors, mixed-flow (or general purpose) lanes, toll facilities and High-Occupancy Toll (HOT) lanes, and strategic arterial improvements.

A significant number of system expansion projects have already been committed through SCAG's RTIP for the highway network. These priority projects close critical gaps in the system, relieve significant bottlenecks, and address inter-county travel needs. Recent extraordinary increases in the costs of concrete and steel have resulted in substantial project cost increases and forced implementing agencies to piece together enough additional funding to deliver the improvements. Voter approval of Proposition 1B in November 2006 brought much-needed revenue to the table, through programs such as the Corridor Mobility Improvement Account (CMIA). Much of the additional improvements recommended in the 2008 RTP, beyond those projects that are already in the delivery pipeline, have been committed through local sales tax revenues such as those recently approved by voters in Orange, Riverside, and San Bernardino Counties. The proposed projects and strategies are based on a performance framework established for the 2004 RTP and updated for the 2008 RTP.

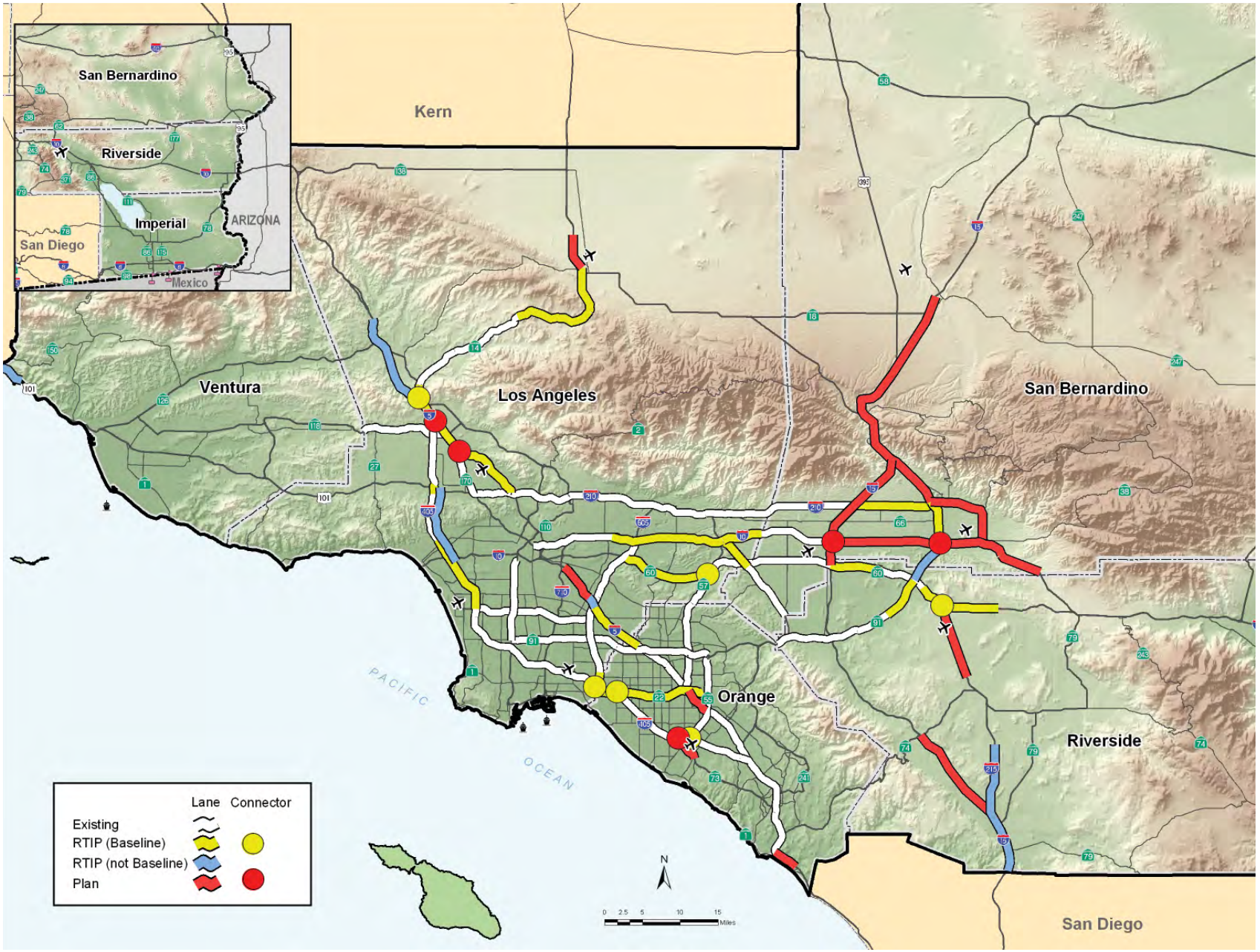
Recently completed Regionally Significant Transportation Investment Studies (RSTIS) have helped to identify additional corridor improvements needed in the SCAG Region. These corridor projects provide capacity enhancements and mobility improvements to address rapidly growing inter-county travel, often on already congested facilities with few alternatives. These projects have been incorporated into the RTP, and they will depend in part on financial contributions from the private sector for their construction, operation, and maintenance.

HOV Gap Closures and Connectors

Southern California has invested heavily in HOV lanes, producing one of the nation's most comprehensive HOV networks and highest rideshare rates. The HOV projects proposed in the RTP focus on strategic gap closures and freeway-to-freeway direct HOV connectors to complete the system. The HOV lane network could eventually serve as the backbone of a regional HOT lane or managed lane system. Determining the feasibility of such a regional system will require further study and discussion before inclusion in a future RTP update.

In 2007, the new SR-22 HOV lanes in Orange County opened as the first continuous-access HOV lanes in Southern California. Monitoring and evaluation of these HOV lanes will conclude in 2008 and transportation officials will decide whether the continuous access will be made permanent.

EXHIBIT 3.2 HOV GAP CLOSURES AND CONNECTORS



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

The HOV lane system is a regional network and operations should be coordinated across jurisdictional boundaries to optimize performance and minimize confusion. SCAG supports further study and evaluation of these proposed operational changes to the HOV lane system to fully understand the mobility, safety, and air quality impacts, as well as any implications for a potential regional HOT lane system.

Projects in the Pipeline

The RTIP includes HOV gap closures and connectors as shown in Exhibit 3.2.

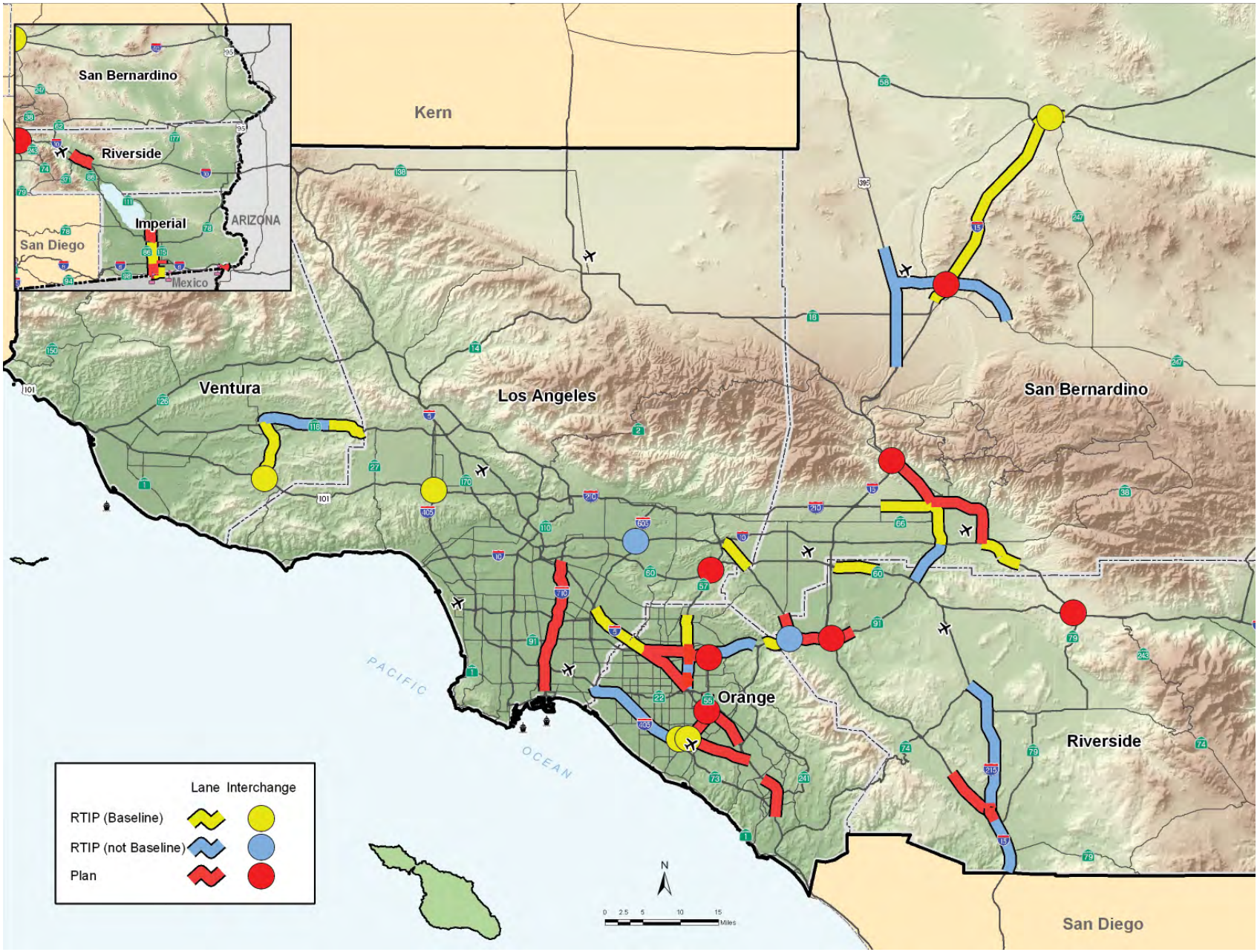
- I-405 in the Westside of Los Angeles
- SR-91 in Riverside
- I-5 and SR-14 connecting the San Fernando Valley to North Los Angeles County
- I-5 and I-605 connecting Los Angeles and Orange Counties
- I-10 and SR-60 connecting Los Angeles and San Bernardino Counties
- SR-60 and I-215 connecting Riverside and San Bernardino Counties
- US-101 connecting Ventura and Santa Barbara Counties
- HOV connectors at I-5/SR-14, SR-57/SR-60, SR-22/I-405, I-405/I-605, and SR-60/I-215

Additional Investments

The 2008 RTP calls for additional investments to extend the HOV network and construct additional connectors, as shown in Table 3.1 and in Exhibit 3.2. It invests close to $8 billion for HOV improvements through 2035. These gap closures and connectors help users to maximize the overall system performance by minimizing weaving conflicts and maintaining travel speeds.



EXHIBIT 3.3 MIXED FLOW LANE ADDITIONS



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

TABLE 3.1 HOV AND HOV CONNECTOR PROJECTS

Project	County	Implementation Schedule*
I-5 (SR-19 to I-710)	Los Angeles	2035
SR-14 (Ave P-8 to Ave L)	Los Angeles	2030
I-5/I-170 connector	Los Angeles	2030
I-5 / I-405 connector	Los Angeles	2030
I-5 (Avenida Pico to Coast Hwy)	Orange	2018
I-5 (SR-55 to SR-57)	Orange	2035
SR-73 (I-405 to MacArthur)	Orange	2035
SR-73/I-405 connector	Orange	2035
I-15 (I-215 to SR-74)	Riverside	2020
I-215 (Nuevo to Box Springs)	Riverside	2020
I-10 (Haven to Ford)	San Bernardino	2020
I-10 (Ford to Riverside County)	San Bernardino	2030
I-10/I-15 connector	San Bernardino	2030
I-10/I-215 connector	San Bernardino	2030
I-15 (Riverside County to I-215)	San Bernardino	2020
I-15 (I-215 to SR-18)	San Bernardino	2020
SR-210 (I-215 to I-10)	San Bernardino	2020
I-215 (SR-210 to I-15)	San Bernardino	2030

** Represents the Plan network year for which a project was analyzed for the RTP modeling and regional emissions analysi*

Mixed Flow

Since mixed-flow lanes carry more traffic than any other component of our transportation system, mixed-flow capacity enhancements are necessary to address traffic bottlenecks and relieve congestion on heavily traveled corridors. This is especially true in areas outside of the urban core where transit service and the HOV network are not fully developed. The majority of mixed-flow projects in the pipeline and proposed in the 2008 RTP are located outside of Los Angeles County.

Projects in the Pipeline

The RTIP contains mixed-flow lane additions on the following routes (see Exhibit 3.3).

- Brawley Bypass in Imperial County
- I-5, I-405, and SR-57 connecting Los Angeles and Orange Counties
- SR-91 connecting Orange and Riverside Counties
- CETAP Mid-County Parkway in Riverside County
- SR-60 and I-215 connecting Riverside and San Bernardino Counties
- I-15 and I-215 connecting Riverside and San Diego Counties
- US-395 in northern San Bernardino County
- Completion of the 210 freeway in San Bernardino County
- SR-23, SR-118, and US-101 in Ventura County

Additional Investments

The 2008 RTP invests $26.2 billion through 2035 for mixed-flow improvements and interchange ramps. Major mixed-flow improvements are listed in Table 3.2 and shown in Exhibit 3.3.

TABLE 3.2 MIXED-FLOW HIGHWAY PROJECTS

Project	County	Implementation Schedule*
SR-111 (SR-98 to I-8)	Imperial	2030
I-710 (Ocean Blvd in Long Beach to intermodal railroad yards in Commerce/Vernon)	Los Angeles	2020
I-5 (SR-73 to El Toro)	Orange	2035
I-5 (SR-133 to SR-55)	Orange	2030
I-5 (SR-57 to SR-91)	Orange	2030
SR-55 (I-405 to SR-22)	Orange	2030
SR-57 (Orangewood to Katella)	Orange	2018
SR-57 (Lincoln to Orangethorpe)	Orange	2020
SR-91 westbound (SR-57 to I-5)	Orange	2018
SR-91 eastbound (SR-57 to SR-55)	Orange	2023
SR-91 westbound (SR-241 to Gypsum Cyn)	Orange	2018
I-405 (I-5 to SR-55)	Orange	2035
I-10 (Monterey to Dillon)	Riverside	2030
I-15 (Bundy Cyn to I-215)	Riverside	2014
SR-71 (SR-91 to San Bernardino County)	Riverside	2035
SR-91 (Pierce to Orange County)	Riverside	2018
I-215 (Murrieta Hot Springs to I-15)	Riverside	2014
SR-210 (I-215 to I-10)	San Bernardino	2020
I-215 (SR-30 to I-15)	San Bernardino	2030

** Represents the Plan network year for which a project was analyzed for the RTP modeling and regional emissions analysis*

Toll and High-Occupancy Toll (HOT) Lane Corridors and Facilities

The 2008 RTP proposes to expand upon the existing HOT lane and toll road system in Orange County to address the congested commuter corridor between housing-rich Riverside County and job-rich Orange County. Additionally, improvements to several major corridors elsewhere in the region are proposed to be financed by tolls.

Projects in the Pipeline

The RTIP includes lane additions to each of the toll roads in Orange County and the construction of the Foothill South corridor connecting to I-5 in San Diego County (see Exhibit 3.4).

- SR-73 – San Joaquin Hills Corridor
- SR-133/SR-241/SR-261 – Eastern Transportation Corridor
- SR-241 – Foothill Transportation Corridor North
- SR-241 – Foothill Transportation Corridor South (extension to I-5)

Additional Investments

The recommendations from several recent major RSTIS efforts examining inter-county travel have been considered in the development of the 2008 RTP. First, the Riverside County to Orange County study completed in 2006 identifies a comprehensive set of improvements that includes extending the SR-91 Express Lanes into Riverside County and providing direct connections to and from the Express Lanes. Additionally, the study identifies two major new facilities, one parallel to the SR-91 and one on a new alignment further south. Secondly, a North Los Angeles County study completed in 2004 recommended a new east-west facility called the High Desert Corridor to connect the high-growth areas of Lancaster/Palmdale and Victor Valley. While the RSTIS provides input to the RTP on a locally preferred strategy, SCAG recognizes and respects the local processes that must continue to solidify community consensus and further refine each project.

In 2006, MTA completed a technical feasibility study examining the potential for constructing the SR-710 Gap Closure between the I-10 and I-210 freeways as a tunnel. SCAG has further assessed the potential for the Gap Closure to be financed in part through a public-private partnership. A number of tolling structures were considered in the financial analyses, including both flat-rate

EXHIBIT 3.4 HOT LANES AND TOLL FACILITIES



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

and variable-toll rate structures. SCAG anticipates that structuring financing alternatives with lower-cost Private Activity Bonds (PABs) and 30- to 50-year -term bonds could help to improve shareholders' internal rate of return.

Additionally, SCAG's current evaluations to date indicate that the project is feasible from a construction standpoint. Two 46-foot inner diameter tunnels could provide two levels of lanes. The upper level could include three lanes for passenger vehicles, and two lanes in the middle level could accommodate truck and high-occupancy vehicles. The SR-710 Gap Closure is estimated to cost $4.6 billion.

The 2008 RTP invests $25.6 billion for toll and HOT lane facilities. These additional investments are listed in Table 3.3 and shown in Exhibit 3.4.

TABLE 3.3 HOT LANES AND TOLL FACILITIES

Project	County	Implementation Schedule*
SR-710 Tunnel Gap Closure (710/Valley Blvd to California Blvd/Pasadena Ave)	Los Angeles	2020
High Desert Corridor (I-5 to US-395)	Los Angeles/ San Bernardino	2030
SR-91/SR-241 HOT connectors	Orange	2020
CETAP Riverside County to Orange County Corridor A (Parallel to SR-91 from I-15 to SR-241)	Orange/Riverside	2035
CETAP Riverside County to Orange County Corridor B (I-15/Mid-County Pkwy to SR-133/SR-241) Preliminary Engineering and Environmental Impact Report/Statement	Orange/Riverside	PE/EIR/EIS ONLY
SR-91 Express Lanes (extend east to I-15)	Riverside	2020
I-15 HOT Lanes (SR-74 to San Bernardino County)	Riverside	2020
SR-91/I-15 HOT connectors	Riverside	2020

** Represents the Plan network year for which a project was analyzed for the RTP modeling and regional emissions analysis*

Arterial Improvements

Local streets and roads account for over 80 percent of the total road network and carry a high percentage of total traffic. In many cases, arterials serve as alternate parallel routes to congested freeway corridors. In mature urban areas there is often little right-of-way available for capacity enhancements. In the fast-growing suburban and exurban parts of the region, local jurisdictions ensure that roadway capacity improvements keep pace with new developments by implementing mitigation fees. In all parts of the region, operational and technological improvements have the potential to maximize system productivity in a more cost-effective way than simply adding capacity. Such strategic "smart street" improvements include spot widening, signal prioritization, driveway consolidation and relocation, and grade separations at high-volume intersections. The 2008 RTP invests approximately $17.1 billion for arterial system improvements as shown in Table 3.4.

TABLE 3.4 ARTERIAL INVESTMENT SUMMARY

County	Investment (in billions, nominal dollars through 2035)
Imperial	$1.0
Los Angeles	$1.5
Orange	$2.0
Riverside	$6.9
San Bernardino	$4.8
Ventura	$0.9
Regional Total	$17.1

Note: Numbers may not add due to rounding

TRANSIT STRATEGIES

Public transit has grown in recent years to become an increasingly integral mode of transportation for the movement of people to and from jobs, school, shopping, and cultural and recreational activities. The region has experienced substantial growth in daily regional transit trips since 2003, and anticipates the trend to continue.

The goals of public transportation services are to ensure mobility for people without access to automobiles, and to provide attractive alternatives for drive-alone motorists or discretionary riders. The public transportation strategies and programs presented in the RTP are developed with these goals in mind. As listed previously in this chapter, these strategies target improving customer service and system reliability, achieving financial stability for operators, and enhancing the safety and security of the system for all riders and operators.

Transit Expansion

The RTP recommends closing critical gaps in the transit system to improve service, and extending routes to serve a greater number of passengers. Our regional transit investments in new modes and innovative services are a significant factor in achieving increased transit use. The development of new rail and bus transit corridors has also spawned investment in new housing, retail, and business development at and near transit stations.

Projects in the Pipeline

The transit projects that are programmed in the RTIP and ready for implementation include expansions to the Bus Rapid Transit (BRT) system, commuter rail, and light rail. Refer to Exhibit 3.5 for an illustration of bus transit projects, and Exhibit 3.6 for rail projects that are included in the 2008 RTP.

Bus Rapid Transit (BRT) is designed to provide fast, high-quality bus service to passengers by taking advantage of signal priority at intersections, operating in mixed traffic or in a dedicated right-of-way, and providing improved bus stop spacing at planned stations. The following BRT projects are programmed in the RTIP:

- Metro Rapid Bus Expansion (to 28 lines) in LA County
- San Fernando Valley North-South BRT (Reseda/Sepulveda & Canoga Corridor) in LA County
- Wilshire Metro Rapidway in LA County
- Harbor Blvd. BRT (Fullerton to Costa Mesa) in Orange County
- Westminster/17th BRT (Santa Ana to Long Beach) in Orange County
- 28-Mile BRT (Brea Mall to Irvine Transportation Center) in Orange County
- E Street Transit Corridor (San Bernardino to Loma Linda) in San Bernardino County

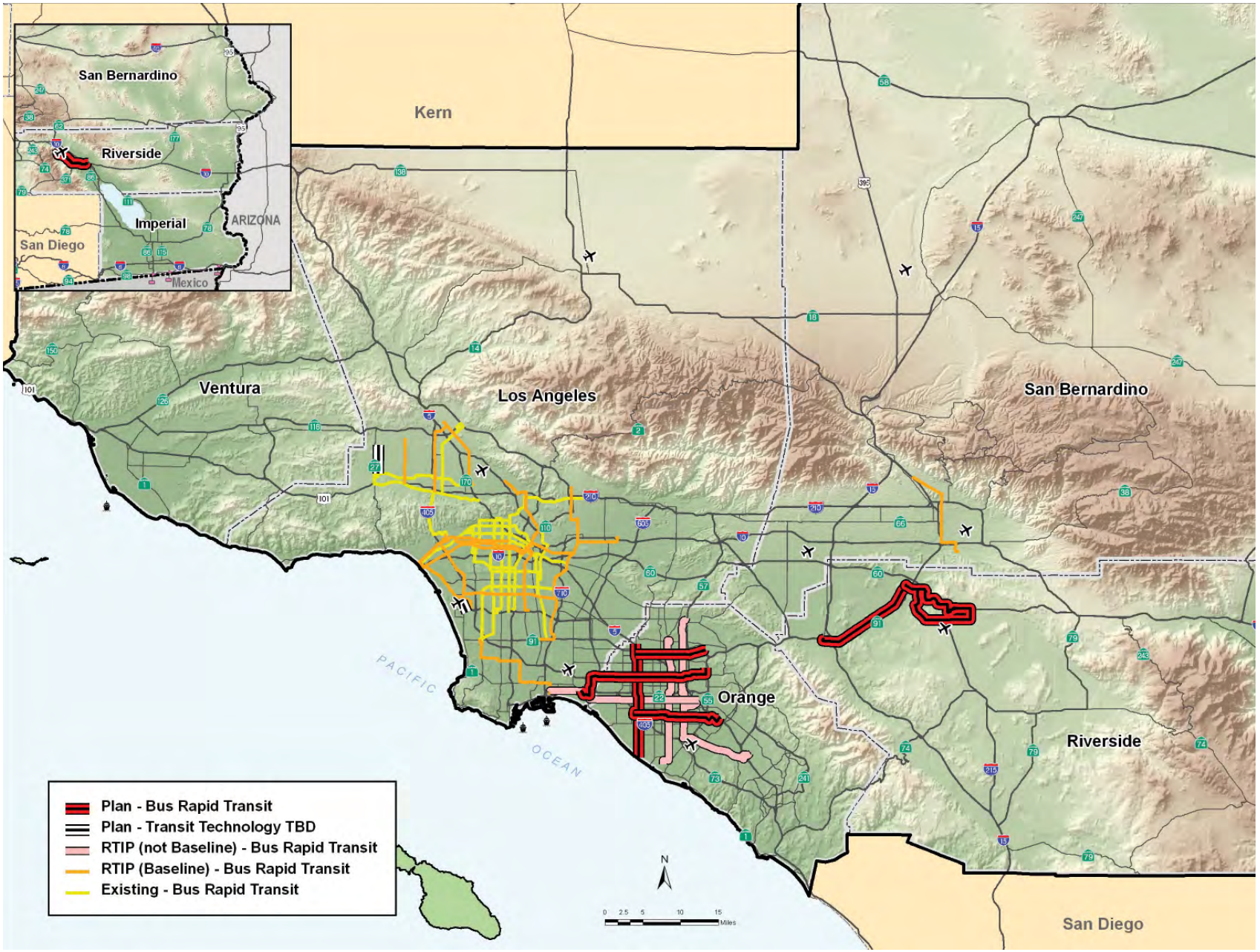
Metrolink is the commuter rail service that operates in five Southern California counties. The Southern California Regional Rail Authority (SCRRA) provides and maintains Metrolink services and facilities. The following commuter rail project is programmed in the RTIP.

- Perris Valley Line (Riverside to Perris) in Riverside County

Light Rail Transit (LRT) utilizes electric-powered vehicles that operate primarily on exclusive rights-of-way. The Metro Rail system comprises the Metro Blue, Green, Red, Purple and Gold Lines. LRT projects programmed in the RTIP include:

- Gold Line Eastside Extension (Union Station to Atlantic) in LA County
- Exposition Corridor Phase 1 (Downtown LA to Culver City - Washington/National) in LA County
- Exposition Corridor Phase 2 (Culver City - Washington/National to Santa Monica) in LA County
- Gold Line Foothill Extension Phase 1 (Pasadena to Azusa-Citrus) in LA County
- Crenshaw Corridor in LA County (may be BRT or LRT)

EXHIBIT 3.5 BUS RAPID TRANSIT PROJECTS



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 3.6 RAIL TRANSIT PROJECTS



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

Additional Investments

The 2008 RTP invests over $44.0 billion in transit projects. Of this amount, nearly $23.3 billion is allocated to bus and intermodal facilities; nearly $6.2 billion to commuter rail projects; and close to $14.5 billion to heavy rail, light rail, and other projects. The major projects included in the RTP that address system gaps and provide strategic corridor expansion are listed in Table 3.5.



TABLE 3.5 TRANSIT CORRIDOR PROJECTS

Project	County	Implementation Schedule*
Regional Connector LRT (Union Station to 7th St/Metro Center)	Los Angeles	2035
Gold Line Foothill Extension Phase 2 (Azusa-Citrus to Montclair)	Los Angeles	2020
Westside Extension (Metro Purple/Red Line Extension)	Los Angeles	2020
Green Line Extension (Mariposa/Nash to Century/Sepulveda LAX, technology TBD)	Los Angeles	2030
Katella BRT (Orange Transportation Center to Long Beach/Blue Line)	Orange	2014
Edinger BRT (Tustin to Huntington Beach)	Orange	2018
Beach Blvd BRT (Huntington Beach to Buena Park)	Orange	2012
La Palma BRT (Anaheim to Buena Park)	Orange	2018
Great Park/Spectrum 5-Mile Transit System	Orange	2012
Western Riverside BRT (Magnolia Corridor Phase 1 City of Riverside; Moreno Valley Corridor Phase 2 City of Moreno Valley)	Riverside	2018
Coachella Valley BRT	Riverside	2018
Perris Valley Line Extension (Perris to San Jacinto)	Riverside	2030
Perris Valley Line Extension (Perris to Temecula)	Riverside	2030
Redlands Extension (4th St/Mt. Vernon to Grove/Central, rail technology TBD)	San Bernardino	2014

** Represents the Plan network year for which a project was analyzed for the RTP modeling and regional emissions analysis*

AVIATION

The SCAG Region supports the nation's largest regional airport system in terms of number of airports and aircraft operations, operating in a very complex airspace environment. The system has six established air carrier airports including Los Angeles International (LAX), Bob Hope (formerly Burbank), John Wayne, Long Beach, Ontario and Palm Springs. There are also four new and emerging air carrier airports in the Inland Empire and North Los Angeles County. These include San Bernardino International Airport (formerly Norton AFB), March Inland Port (joint use with March Air Reserve Base), Southern California Logistics Airport (formerly George AFB) and Palmdale Airport (joint use with Air Force Plant 42). Southern California airports play a crucial role in international trade, particularly with Pacific Rim countries, and to the regional economy. The value of airborne commodity exports out of the Los Angeles Customs District are about equal to waterborne exports, and airborne export values would be significantly greater if service exports, including impacts from tourism, were added to total export values.

The aviation strategy is very similar to the 2030 decentralized regional aviation system adopted for the 2004 RTP. It respects all legally enforceable policy and physical-capacity constraints at urban airports. It assumes much more willingness on the part of the airlines to invest in new flights at new and emerging airports, and a package of market and ground access incentives to promote decentralization at underutilized suburban airports.

The aviation strategy incorporates the HSRT system Initial Operating Segment (IOS) running from West Los Angeles to Ontario Airport, and extending west to LAX and east to San Bernardino International. The region is projected to reach 165.3 million annual passengers (MAP) in 2035 (190.7 MAP including San Diego).

TABLE 3.6 2035 AIR PASSENGER ALLOCATIONS BY AIRPORT

Commercial Airports	Annual Air Passengers (in millions)
Bob Hope	9.4
John Wayne	10.8
LAX	78.9
Long Beach	4.2
March Inland Port	2.5
Ontario	31.6
Palmdale	6.3
Palm Springs	4.1
San Bernardino	9.4
So. Cal. Logistics	2.9
Imperial*	3.5
Oxnard*	1.7
Region Total	**165.3**

** Existing commuter airport with potential to accommodate short-haul service*

Regional Aviation Policies

New regional aviation policies have been developed for the 2008 RTP with input from both the SCAG Aviation Task Force and the SCAG Aviation Technical Advisory Committee. They respond to changing circumstances and new priorities in the regional aviation system. The policies are divided into Aviation Guiding Principles and Aviation Action Steps, as follows:

Aviation Guiding Principles:

- Provide for regional capture of economic development opportunities and job growth created by the prospect of significant regional air traffic growth between now and 2035

- Distribute maximum opportunity to Southern California airports where population and job growth are expected to be strong and where local communities desire air traffic for economic development
- Reflect environmental, environmental justice and local quality-of-life constraints at existing airports that operate in built-out urban environments
- Reflect that each county should have both the obligation and the opportunity to meet its own air traffic needs where feasible
- Reflect that the region as a whole has an obligation to help pay the costs of airport environmental mitigation and ground access improvement in counties that serve a disproportionate share of regional air travel demand at their airports

Aviation Action Steps:

- Support capacity enhancements at existing and potential airports to handle anticipated increases in passengers and cargo volume where it is desired
- Mitigate the effects of expanding airports and maximize air passenger and air cargo utilization of outlying airports in less-populated areas so that community impacts are minimized
- Support the continued responsibility of SCAG for developing regional aviation and ground access plans for the region
- Support the close cooperation between SCAG and other aviation organizations to facilitate the implementation of adopted regional aviation plans prepared by SCAG
- Support legislative, marketing and ground access initiatives that promote the decentralization of aviation demand to underutilized suburban airports where it is desired
- Support more flexible use of airport revenues for off-airport ground access projects
- Support giving priority to key airport ground access projects in the programming of transportation projects in the RTP and the RTIP
- Support the development of a regional network of new FlyAways that connect to multiple airports via HOV, light rail and commuter rail facilities, to help decentralize aviation demand to underutilized suburban airports where it is desired
- Support efforts to redesign the regional airspace system that may be needed to reduce significant conflicts and delays associated with future air traffic in SCAG's adopted 2035 regional aviation forecast
- Support a more active role by the federal government in developing substantial incentives for airlines to upgrade their aircraft fleet to cleaner and quieter aircraft

Air Cargo Forecasts

The aviation strategy forecasts a total of almost 8.3 million tons of air cargo for the region's airports in 2035. The adopted 2030 air cargo forecast for the 2004 RTP was 8,724 tons. There is a variety of reasons why the new air forecast is lower than the adopted forecast in the last RTP. These include more domestic cargo being transported by truck and train, more international air cargo over-flying the region on longer-range aircraft or flying the Arctic Circle route with a stop at Anchorage, and high value-to-weight goods such as computers forecast to be lighter per unit volume. The 2035 modeling results of the air cargo forecast are shown in Table 3.7.

TABLE 3.7 2035 TOTAL ANNUAL AIR CARGO TONNAGE BY AIRPORT (THOUSANDS)

Air Carrier Airports	Air Cargo Tonnage (thousands)
Bob Hope	86
John Wayne	45
LAX	2,496
Long Beach	134
March Inland Port	1,130
Ontario	1,959
Palmdale	781
Palm Springs	129
San Bernardino	1,290
So. Cal. Logistics	230
Region Total	**8,280**



Airport Ground Access

The 2008 RTP may have localized ground access impacts at a number of airports. The RTP will result in significant increases in airport activities (people as well as cargo) at Ontario, San Bernardino International, and Palmdale Airports. Regional Airport Demand Allocation Model (RADAM) modeling for the Preferred Scenario shows that airport ground access deficiencies are concentrated near airport areas but that background congestion affects both airports and local communities.

SCAG's adopted Regional Aviation Decentralization Strategy calls for making substantial airport ground access improvements throughout the region, in both the short term and long term. The short-term program emphasizes relieving immediate bottlenecks around airports through arterial, intersection and interchange improvements, and increasing transit access to airports. Many of these improvements were programmed in the RTIP, and have been updated with strong local input from airport, city and county transportation planners.

SCAG is currently working with Los Angeles World Airports (LAWA) on planning and programming a regional system of FlyAways, based on the very successful Van Nuys FlyAway, where passengers park their cars and take a bus to LAX. The locations of the proposed new FlyAways can be optimized by taking advantage of the region's developing high-occupancy vehicle (HOV) and light and heavy rail networks that can provide direct linkages to Ontario and Palmdale as well as LAX. Making seamless HOV and rail connections with enhanced service to those and other suburban airports will also compose SCAG's short- and medium-range airport ground access strategy. The FlyAway, HOV and rail improvements to the suburban airports will help establish a pattern of decentralization, by attracting a critical mass of passengers and airline service

at those emerging airports. SCAG is also working with the newly reactivated SCRAA in its ongoing efforts to restructure and redefine its mission, with the focus of helping to implement the Regional Aviation Decentralization Strategy through facilitating key airport ground access improvements.

Over the long term, SCAG aviation demand modeling indicates that the region will also need a system of high-speed rail to the suburban airports to reach our adopted air passenger and air cargo forecasts, which are moderate and even conservative when compared to other forecasts for the region such as those developed by the FAA. The high speed, reliability and predictability of high-speed airport access will be needed to overcome mounting and increasingly unpredictable traffic congestion. For example, the Initial Operating Segment of SCAG's proposed high-speed rail system from West Los Angeles to Ontario Airport will take only 33 minutes to travel from end to end, compared to over two hours by car in 2030. The regional high-speed rail system is an integral component of the 2008 RTP Preferred 2035 regional aviation demand forecast.

Provision of high-speed rail service to the suburban airports would also provide significant economic benefits to region. It is estimated that the regional aviation system with a full high-speed rail network would create an additional 76,600 direct, indirect and induced jobs by 2035, compared to a system with no high-speed access. These would include an additional 28,900 jobs from high-speed access to Palmdale Airport, and an additional 27,100 jobs from high-speed access to San Bernardino International Airport.

HIGH-SPEED REGIONAL TRANSPORT

SCAG has advanced a vision of regional transport based on high-performance, high-speed, and environmentally sensitive alternatives. A High-Speed Regional Transport (HSRT) system has the potential for relieving both airport and freeway congestion in urbanized areas by providing an alternative to the automobile as well as making less-congested airports more accessible to air travelers, and providing alternative capacity for freight movement in the region.

The HSRT system is a long-term vision connecting the region's ports, airports, and urban activity centers. The system can be constructed in multiple stages that can each be financially viable. The financial performance will be enhanced as the system is extended throughout the region and the volume of users increases. The HSRT plan is constructed on three core components:

- **Goods Movement/Logistics:**
  Connect the San Pedro Bay Ports with an inland port facility via the high-speed, high-capacity link. This would provide capacity to handle containers, relieving a major constraint to port expansion, and facilitate efficient and environmentally sensitive goods handling in areas that have sufficient space outside of the urban areas. A detailed discussion on goods movement strategies is included in this chapter.

- **Aviation System:**
  Create a direct and reliable link capable of connecting airports and urban centers. Continue use of LAX as a major hub and sharing de-



mand with other regional airports such as Ontario International Airport (ONT), Palmdale Regional Airport (PMD) and San Bernardino International Airport (SBD) based on a high-speed connection via the HSRT. This would enable a higher level of service for airport access and connecting passengers, improved operation of the aviation system for passengers and airborne cargo, and optimize investment in aviation system infrastructure.

- **Surface Transport System:**

  Link urban activity centers throughout the region, serving the needs of commuters while reducing the number of private vehicles on the road. This would lead to reduced traffic congestion, enhanced accessibility between activity centers, as well as reduced air and noise pollution from automobiles. Additionally, enhanced accessibility at transit stations would enable intensification of land uses and thereby encourage more effective land use patterns.

The SCAG HSRT system will ultimately grow to cover over 275 miles of corridors in the SCAG Region, and will move up to 500,000 riders a day. When fully deployed, the HSRT system could complement the regional state highway transportation system. The HSRT program also envisions a longer-term connection to San Diego and other southern airports in the SCAG Region, a connection between San Bernardino and Palmdale via a high desert alignment, an LAX to Orange County route, and a San Bernardino to the Coachella Valley segment, intertwining with the proposed state high-speed rail system.

The California High-Speed Rail Authority (CHSRA) has been commissioned to do preliminary development work on several north-south corridors. SCAG has supported the Antelope and San Joaquin Valley corridors (Resolution #96-357-1-B). The State of California should coordinate all high-speed rail-planning activities with SCAG and other stakeholders within the state, especially with regard to HSRT, aviation, environment, growth, access, finance, and community development. SCAG is supportive of CHSRA's efforts to build a high-speed rail system in Southern California.

Three phases have been developed to implement the HSRT deployment program:

- **Phase I**, Pre-Deployment Analysis, was completed in October 2003 and includes right-of-way assessment on the freeway system and railroad corridors, assessment of ridership and interaction with other transportation systems, Los Angeles Union Passenger Terminal (LAUPT) capacity analysis, stakeholder outreach, financial feasibility, public-private partnership, technology transfer, and identification of an Initial Operating Segment (IOS).
- **Phase 2**, Preliminary Engineering, was completed in 2006 for the IOS, and focused on defining the project to prepare preliminary engineering for the purpose of environmental assessment and analysis (EIR/EIS) for public-private investment.
- **Phase 3**, Project Deployment Strategy, was initially done via a consultant study completed in 2007. It focused on an extended IOS with a link to the Ports of Los Angeles and Long Beach. The goal was to provide an initial investment quality analysis necessary to take the deployment program to the private market. The next step in this phase (date to be determined) will include an investment-grade ridership and revenue forecast, operation plans, a detailed financial plan, and creation of a public-private consortium for project deployment.

In December 2002, SCAG's Regional Council approved the deployment of a 54-mile IOS of the HSRT system that would connect West Los Angeles via LAUPT to Ontario Airport. It is a component of an 81-mile corridor between LAX and the San Bernardino Airport. In selecting the IOS, SCAG considered the RTP performance measures, stakeholder support and environmental issues. At the same time, SCAG's Regional Council approved the advance planning of the LAX to Palmdale corridor and Los Angeles to Orange County corridor (Orangeline).

The feasibility studies for the four corridors demonstrated that the HSRT system could be constructed and deployed through a public-private partnership

structure administered through a public agency, a joint powers authority (JPA), a public nonprofit (PNP), or a public-private partnership (PPP) format using a number of innovative and traditional funding mechanisms.

A JPA is in the process of being formed for the express purpose of implementing the IOS (West Los Angeles/LAX to Ontario Airport). Voting members of the yet-to-be-named JPA are the City of Los Angeles, the City of West Covina, and the City of Ontario. SCAG would be one of several non-voting members of the JPA.

TABLE 3.8 2008 RTP REGIONAL HSRT MILESTONES

Milestone	Capital Cost (in nominal dollars, billions)	Implementation Schedule*
IOS: Ontario – West Covina-LA Union Station – West LA/LAX	$19	2020
IOS extension to San Bernardino	$3.5	2020
San Pedro Ports to the IOS	$18	2020
Anaheim - Ontario	$6.7	2020
California High-Speed Train (Union Station - Anaheim)	$4.0**	2020

** Represents the network year for which a project was analyzed for the RTP modeling and regional emissions analysis.*
*** Assumes cost covered by state HSRT Bond Act. State bond revenues for HSRT are not included in the regional revenue forecast.*

Implementation and operation of the HSRT is being proposed on the basis of a business plan approach whereby it will be largely self-financed based on the goods movement, aviation, and commuter operations. The use of public rights-of-way is a critical component of the system as is some level of financial commitment from the public sector. The net performance of the HSRT will be further bolstered by related development in real estate property. A business and institutional structure for the movement of goods, movement of people, and associated development patterns has been developed by SCAG to serve as the basis for implementation of the movement systems.

The HSRT would enhance airport access and connections between regional airports by allowing passengers to bypass the congested highway network. It is envisioned that the HSRT would serve as the basis for a regional airport system and aviation system users would become a key component of HSRT passenger ridership.

Next Steps:

- Prepare preliminary engineering for the Ontario – West Covina-LA Union Station – West LA/LAX IOS for the purpose of preparation of the federal Environmental Impact Statement (EIS) and/or State Environmental Impact Report (EIR) to a level necessary for public-private investment.
- Form a Joint Powers Authority (JPA) for the IOS, and market projects to public-private stakeholders.
- Secure federal, state and local funds to supplement private investment to complete deployment of the IOS and coalesce community support
- Seek legislative support at the regional, state and federal levels for the HSRT deployment
- Continue working on public-private partnerships (PPP) to fund HSRT projects and to fast-track institutional issues

Anaheim-Ontario Maglev Segment

The California-Nevada Super Speed Train Commission (CNSSTC) was formed in 1988 to promote the development of, and issue a franchise to build, a superspeed train system connecting Las Vegas with Anaheim and other points in Southern California. In 1991 the Commission selected Transrapid International (TRI) Maglev technology for the corridor.

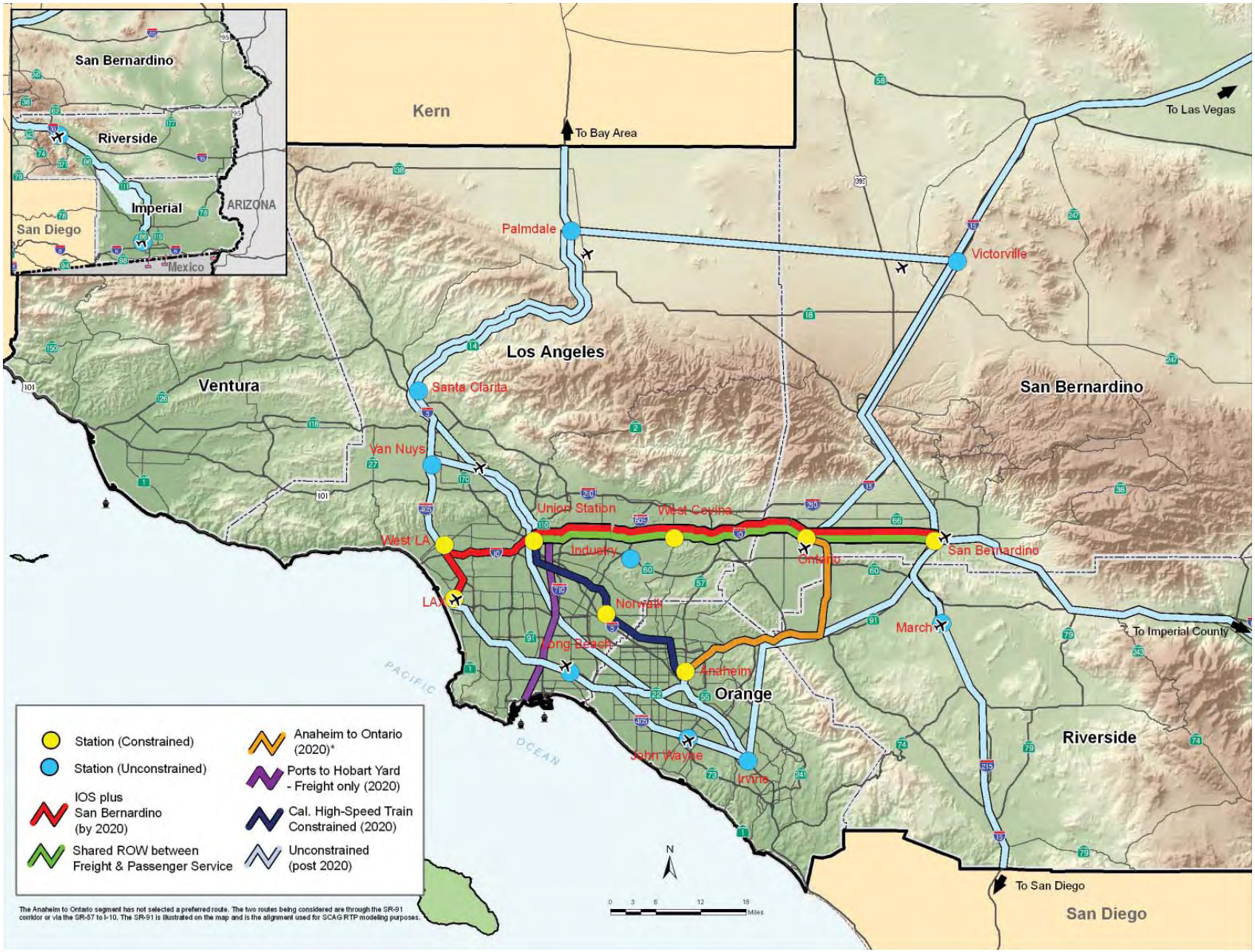
The critical segment of this route for Southern California is the Anaheim to Ontario Airport link. This would further the airport decentralization strategy for the region and provide a viable transit system to help mitigate transportation congestion/pollution caused by the jobs/housing imbalance between Orange and Riverside Counties.

EXHIBIT 3.7 IOS WITH EXTENSION TO SAN BERNARDINO AND LINK TO SAN PEDRO PORTS



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 3.8 PROPOSED HIGH-SPEED REGIONAL TRANSPORT SYSTEM



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

According to a feasibility study done by CNSSTC in 2000, the Anaheim to Ontario Airport segment will be 32 miles long and take 14.5 minutes with no stops between the two end points and 18 minutes with a station stop mid-route. The capital cost is estimated at $6.7 billion. Annual ridership projections are 13.9 million passengers per year (approximately 38,000 riders per day) with 10-minute headways.

It is not yet determined whether the primary route for this segment will be in the SR-91 corridor or the SR-57. These routes need to be re-examined in future feasibility and planning studies. For modeling purposes, the SR-91 corridor was the selected route.

CNSSTC is seeking funding for future studies and construction of the project from the U.S. federal government.

In 2002, the Western States Maglev Alliance was formed between SCAG and the California-Nevada Super Speed Train Commission and was approved by the Regional Council. As a result of this alliance, the Plan supports continued analysis of the proposed Las Vegas to Anaheim Maglev, especially the segment from Anaheim to Ontario.

California High-Speed Train

Established in 1996, the California High-Speed Rail Authority (CHSRA) is charged with planning, designing, constructing, and operating a high-speed steel wheels on steel rails train system. The financing plan is to pass statewide bonds to pay for the capital infrastructure. The first bond to fund the project is $9.95 billion and is currently on the ballot for November 2008.

The proposed system stretches from San Francisco, Oakland and Sacramento in the north -- with service to the Central Valley -- to Los Angeles and San Diego in the south. With bullet trains operating at speeds up to 220 mph, the express travel time from downtown San Francisco to Los Angeles is just under 2 ½ hours. Intercity travelers (trips between metropolitan regions) along with longer-distance commuters would enjoy the benefits of a system designed to connect with existing rail, air and highway systems.

In the SCAG Region there is a planned 210 miles of rail. One line covers 30 miles from Orange County to Union Station and the other from Union Station veering east to Riverside and then down Interstate 15 (I-15) to San Diego. Northbound from Union Station, the route heads through Burbank to Palmdale and then to the Central Valley. If built out, the state system is planned to connect up with SCAG's HSRT system in Palmdale, Union Station and Ontario. Funding ($7 million) to begin a project-specific EIR/EIS in the Union Station to Orange County segment in the LOSSAN corridor is being provided to CHSRA from OCTA.

SPOTLIGHT ON GOODS MOVEMENT

The goods movement strategies identified in the 2008 RTP merit a focused discussion because of the critical and far-reaching impacts on our region's transportation system, economy, and public health. The goods movement sector of transportation is growing at a tremendous pace and will continue to do so over the time frame of the RTP. The San Pedro Bay Ports (Port of Los Angeles and the Port of Long Beach) forecast that by 2030 container volume could triple. The productivity gains that are realized by Southern California's geographical advantage and the extraordinary logistics network of ports, warehouses and distribution systems are the primary reasons for this growth.

Cross-border trade activity also contributes to the region's international trade growth. The growth in the manufacturing industry in Mexico has increased truck trips through Calexico East in Imperial County by 77 percent between 1994 and 2005. Also, the Port of Hueneme plays an important role in facilitating the movement of goods. Approximately $7 billion in cargo traverses through the Port annually, and trade-related activity generated by the Port contributes significantly to the local economy.

To continue to provide this critical service, a combination of federal, state, local and private investment is needed. The 2008 RTP calls for approximately $13 billion in freight rail investments, nearly $18 billion in a freight HSRT system, and over $5 billion in highway investments to enable the region to handle the dramatic growth in goods movement. Rail investments consist of

additional mainline capacity, grade separations, and locomotive engine upgrades. About half of the rail-related investments are for highway-rail grade separations, which reduce traffic congestion, improve safety, and reduce pollution. Highway investments include the first phase of a dedicated, toll clean technology truck lane system and truck climbing lanes. Additionally, the proposed alternative technology system for freight includes a shared guideway with passenger vehicles. Service would be operating between passenger intervals, effectively utilizing the available capacity of the system (see Exhibit 3.8).

An essential element of improving the region's goods movement system is reducing its current and long-term impacts on public health and the environment. Accordingly, the 2008 RTP includes investments that integrate air quality mitigation into the goods movement system improvements. Substantial air quality benefits can be realized by accelerating fleet modernization with cleaner technologies.

Further, this Plan maximizes the utilization of the scarce land area near the ports, includes the development of inland port capacity, and has dedicated ground access systems that enable the region to protect communities and meet demand. Specific elements of this Plan are described in the following sections.

PORT ACCESS IMPROVEMENTS

Port access improvements include short-term initiatives to improve access to Terminal Island and to remove bottlenecks to truck movements. They include the replacement of the Gerald Desmond Bridge, SR-47 Truck Expressway/Heim Bridge replacement, I-110/SR-47 Connectors Improvement Program, and the SR-47/Navy Way Interchange. These projects are programmed over the short-term in the 2006 RTIP.

To provide for the landside port access improvements in Imperial County, the 2006 RTIP includes the Brawley Bypass project, which is a four-lane expressway connecting SR-78 and SR-111. The completion of the project will provide continuity between the California/Baja California border to Riverside County, ensuring smooth and reliable movement of goods through the border.

DEDICATED LANES FOR CLEAN TECHNOLOGY TRUCKS

Over the past several RTP updates, the region has been exploring dedicated truck-lane facilities and continues to refine the concept of such user-supported corridors to improve the flow of goods. More recent effort has focused on adding dedicated truck lanes for clean technology vehicles along truck-intensive corridors in Southern California. Operationally, such a corridor would be aligned to connect freight-intensive locations such as the Ports, warehousing/distribution center locations, and manufacturing locations. These dedicated



EXHIBIT 3.9 DEDICATED LANES FOR CLEAN TECHNOLOGY TRUCKS



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

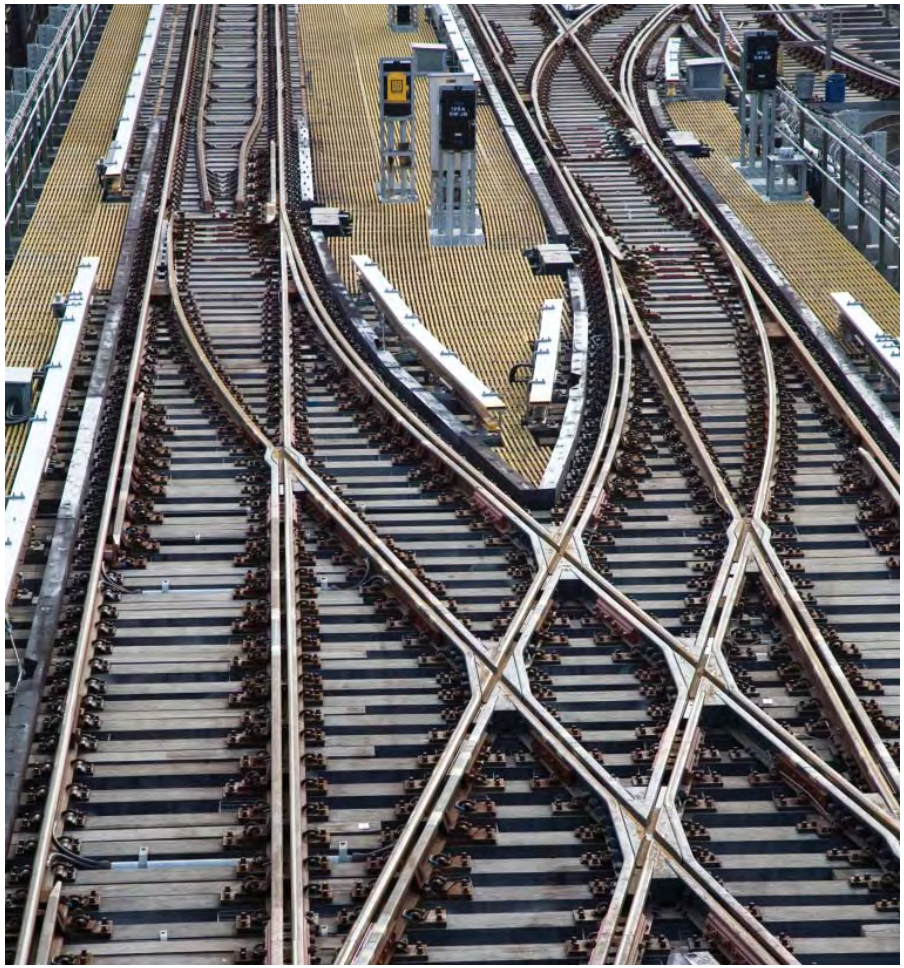
facilities would have fewer entrance/egress locations than typical urban interstates to smooth the flow of goods.

This proposal has the potential to relieve many of the negative truck impacts in Southern California such as recurrent delay, pavement deterioration, safety, emissions, and design deficiencies. Dedicated truck lanes would also increase reliability in the freeway system. Despite these benefits, substantial financial constraints as well as environmental impact considerations could hinder project implementation. Recognizing these challenges, the 2008 RTP funds the I-710 segment as the first phase of a comprehensive system that addresses truck-related issues in the region (Exhibit 3.9). This segment includes roughly 78 lane-miles (two lanes in each direction) of dedicated lanes for clean technology trucks along alignments extending from Ocean Blvd. in Long Beach to the intermodal railroad yards in Vernon/Commerce. This represents an investment of over $5 billion.

The region's longer-term strategic vision would include an east-west corridor and the I-15 freeway, serving strategic distribution centers in Barstow. Major corridor studies have already been completed for I-710, SR-60, and I-15. An EIR/EIS and preliminary engineering are currently underway for I-710. The technical analysis for the 2008 RTP assumes the implementation of dedicated lanes accommodating clean technology vehicles along the I-710 corridor until a preferred alternative is identified by the EIR/EIS.

REGIONAL FREIGHT RAIL INVESTMENT AND EMISSION REDUCTION PACKAGE

Recent projections included in SCAG's *Inland Empire Railroad Main Line Study* suggest that the number of freight trains on most BNSF and UP lines will more than double between 2000 and 2025 in response to a tripling of container volumes at the San Pedro Bay Ports. Passenger train volumes are expected to experience similar volume growth.



The UP and BNSF mainlines east of downtown Los Angeles will reach capacity before the end of the decade and will need to be triple-tracked or even quadruple-tracked in some segments. Investments in the 2008 RTP include $3.2 billion for mainline rail capacity improvements, $6.0 billion to build an estimated 131 highway-rail grade separations east of downtown Los Angeles, and a total of $3.8 billion for accelerating upgrades to cleaner diesel locomotive engines—namely, Tier 4 engines.

In March of 2007, the US Environmental Protection Agency (EPA) proposed new standards to reduce emissions from diesel locomotives: Tier 3 and Tier 4 exhaust emission standards for newly built engines with high-efficiency catalytic after-treatment technology. Tier 3 engines will be available in 2009 and the associated estimated reduction in emissions is less than 50 percent of current conditions. The reduction in emissions from Tier 4 engines is estimated at 90 percent of current conditions. The 2008 RTP assumes nearly $2 billion in federal EPA funding to accelerate the deployment of Tier 4 engines in the region.

Exhibit 3.10 shows planned projects for regional rail capacity enhancement in Southern California. Most of the BNSF system south and west of Colton Crossing will need additional track by 2025, and several of these segments will require additional track as soon as 2010. By 2025 this line will require grade-separated crossings at junctions where the two railroads have lines crossing. North of Colton Crossing over the Cajon Pass to Barstow substantial additional mainline capacity will be needed by 2010 as well as new connections to the system. In the UP system, most of the Yuma line will require double-tracking by 2025 and the San Gabriel line may require double-tracking over major segments during the same time frame. Also by 2025, UP will require several grade-separated junctions.

Exhibits 3.11, 3.12, 3.13, and 3.14 show the grade separation projects by county planned in the region. Stakeholder agencies throughout the region have identified priority grade separations that were analyzed in the Inland Empire Railroad Main Line Study and it was determined that without additional grade separations, motor vehicle delay at grade crossings will more than triple between 2000 and 2025. Analysis of vehicle delay from high-priority grade separations shows that these could reduce growth in vehicle hours of daily delay (VHDD), cutting delay in half by 2025. This will reduce motor vehicle idling delay and associated idling emissions, and by increasing train speeds, will reduce train emissions through more efficient operations.

ALTERNATIVE TECHNOLOGY-BASED GOODS MOVEMENT/LOGISTICS

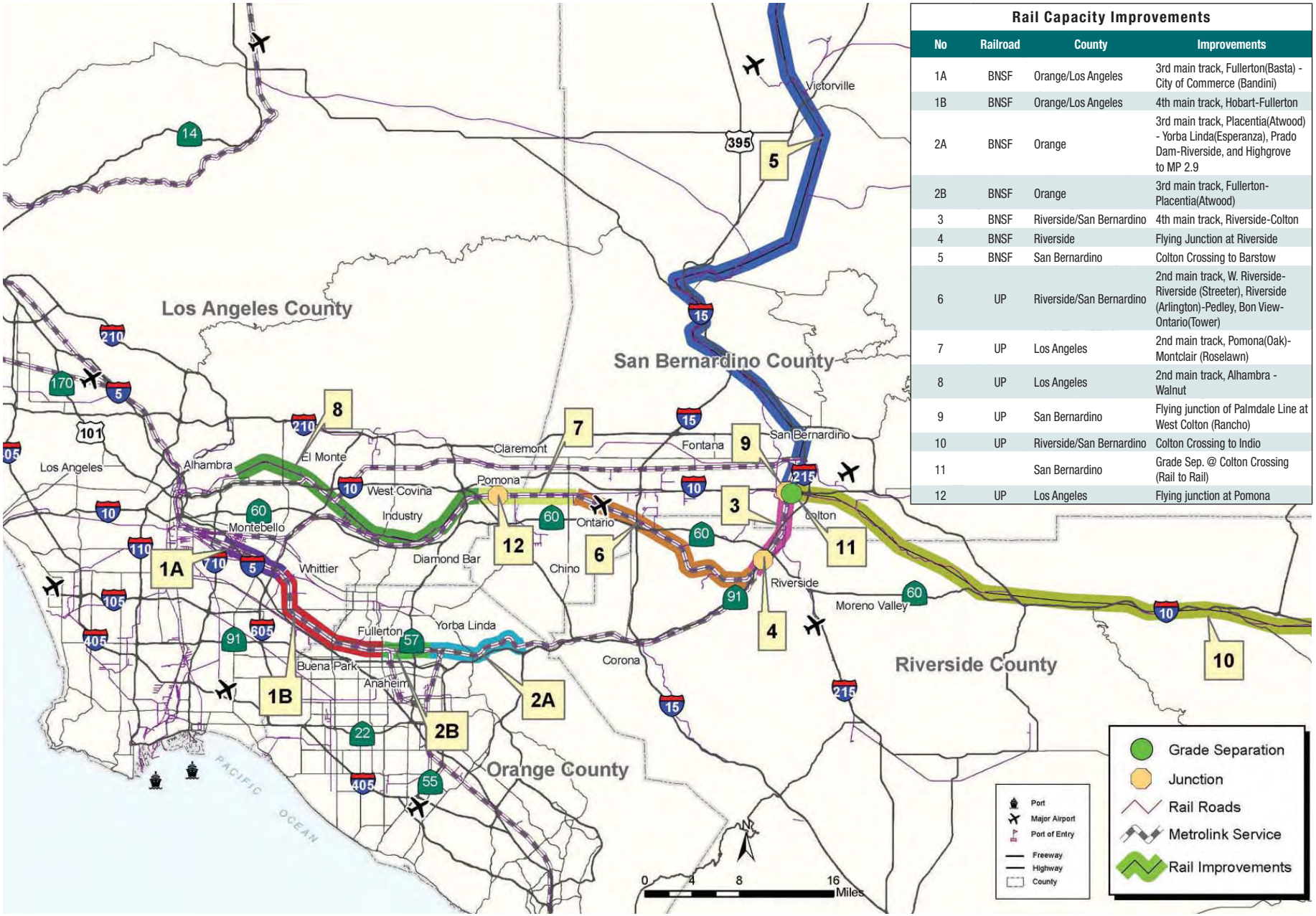
The region is also exploring new alternative technology-based systems that can provide greater throughput and reliability with near zero emissions (the emissions would be only those associated with electricity generation). A recent

TABLE 3.9 SBD CAPACITY SHARED GUIDEWAY WITH PASSENGER SERVICE - 9.2M TEU

Operating Period				Trains/Day/Direction		Potential Capacity				
	Hr/Day	Trains/Hr/Direction		Passenger	Freight	Per Day and Direction				Per Year and Direction
		Passenger	Freight			Passenger	Freight			(24/7 Operation)
							20 ft	40 ft	TEU	TEU
Peak	8	6	6	48	48	42,528	96	1,824	3,744	1,366,560
Off-Peak	10	3	9	30	90	26,580	180	3,420	7,020	2,562,300
Night	2	0	12	0	24	-	48	912	1,872	683,280
Maintenance	4	0	0	0	0	-	-	-	-	-
Total	24	9	27	78	162	69,108	324	6,156	12,636	4,612,140
Total Passengers/Freight in Both Directions						**138,216**	**648**	**12,312**	**25,272**	**9,224,280**

Source: IBI Group

EXHIBIT 3.10 PLANNED PROJECTS FOR REGIONAL RAIL CAPACITY ENHANCEMENT

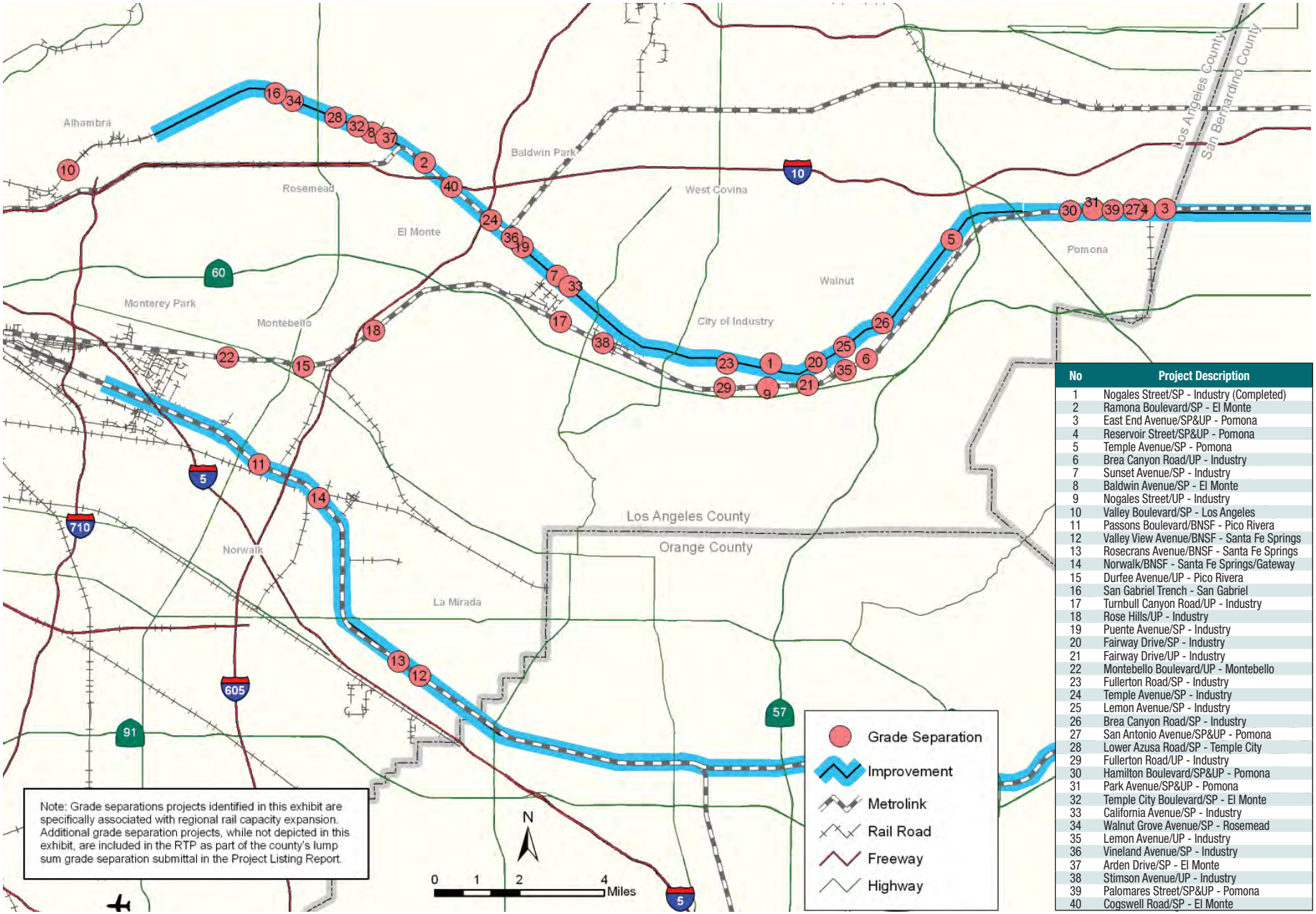


Rail Capacity Improvements

No	Railroad	County	Improvements
1A	BNSF	Orange/Los Angeles	3rd main track, Fullerton(Basta) - City of Commerce (Bandini)
1B	BNSF	Orange/Los Angeles	4th main track, Hobart-Fullerton
2A	BNSF	Orange	3rd main track, Placentia(Atwood) - Yorba Linda(Esperanza), Prado Dam-Riverside, and Highgrove to MP 2.9
2B	BNSF	Orange	3rd main track, Fullerton-Placentia(Atwood)
3	BNSF	Riverside/San Bernardino	4th main track, Riverside-Colton
4	BNSF	Riverside	Flying Junction at Riverside
5	BNSF	San Bernardino	Colton Crossing to Barstow
6	UP	Riverside/San Bernardino	2nd main track, W. Riverside-Riverside (Streeter), Riverside (Arlington)-Pedley, Bon View-Ontario(Tower)
7	UP	Los Angeles	2nd main track, Pomona(Oak)-Montclair (Roselawn)
8	UP	Los Angeles	2nd main track, Alhambra - Walnut
9	UP	San Bernardino	Flying junction of Palmdale Line at West Colton (Rancho)
10	UP	Riverside/San Bernardino	Colton Crossing to Indio
11		San Bernardino	Grade Sep. @ Colton Crossing (Rail to Rail)
12	UP	Los Angeles	Flying junction at Pomona

Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

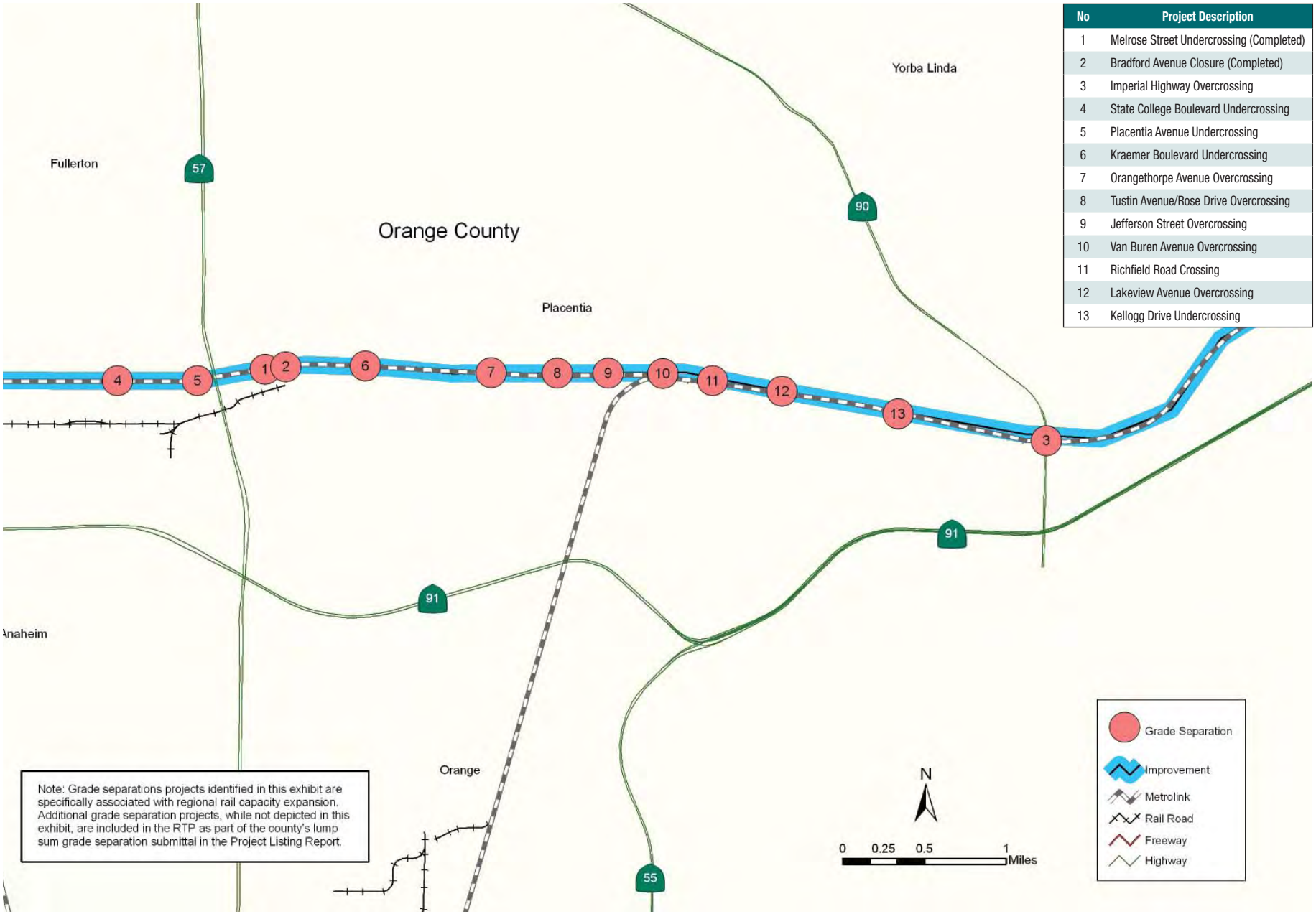
EXHIBIT 3.11 GRADE SEPARATION PROJECTS IN LOS ANGELES COUNTY



No	Project Description
1	Nogales Street/SP - Industry (Completed)
2	Ramona Boulevard/SP - El Monte
3	East End Avenue/SP&UP - Pomona
4	Reservoir Street/SP&UP - Pomona
5	Temple Avenue/SP - Pomona
6	Brea Canyon Road/UP - Industry
7	Sunset Avenue/SP - Industry
8	Baldwin Avenue/SP - El Monte
9	Nogales Street/UP - Industry
10	Valley Boulevard/SP - Los Angeles
11	Passons Boulevard/BNSF - Pico Rivera
12	Valley View Avenue/BNSF - Santa Fe Springs
13	Rosecrans Avenue/BNSF - Santa Fe Springs
14	Norwalk/BNSF - Santa Fe Springs/Gateway
15	Durfee Avenue/UP - Pico Rivera
16	San Gabriel Trench - San Gabriel
17	Turnbull Canyon Road/UP - Industry
18	Rose Hills/UP - Industry
19	Puente Avenue/SP - Industry
20	Fairway Drive/SP - Industry
21	Fairway Drive/UP - Industry
22	Montebello Boulevard/UP - Montebello
23	Fullerton Road/SP - Industry
24	Temple Avenue/SP - Industry
25	Lemon Avenue/SP - Industry
26	Brea Canyon Road/SP - Industry
27	San Antonio Avenue/SP&UP - Pomona
28	Lower Azusa Road/SP - Temple City
29	Fullerton Road/UP - Industry
30	Hamilton Boulevard/SP&UP - Pomona
31	Park Avenue/SP&UP - Pomona
32	Temple City Boulevard/SP - El Monte
33	California Avenue/SP - Industry
34	Walnut Grove Avenue/SP - Rosemead
35	Lemon Avenue/UP - Industry
36	Vineland Avenue/SP - Industry
37	Arden Drive/SP - El Monte
38	Stimson Avenue/UP - Industry
39	Palomares Street/SP&UP - Pomona
40	Cogswell Road/SP - El Monte

Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

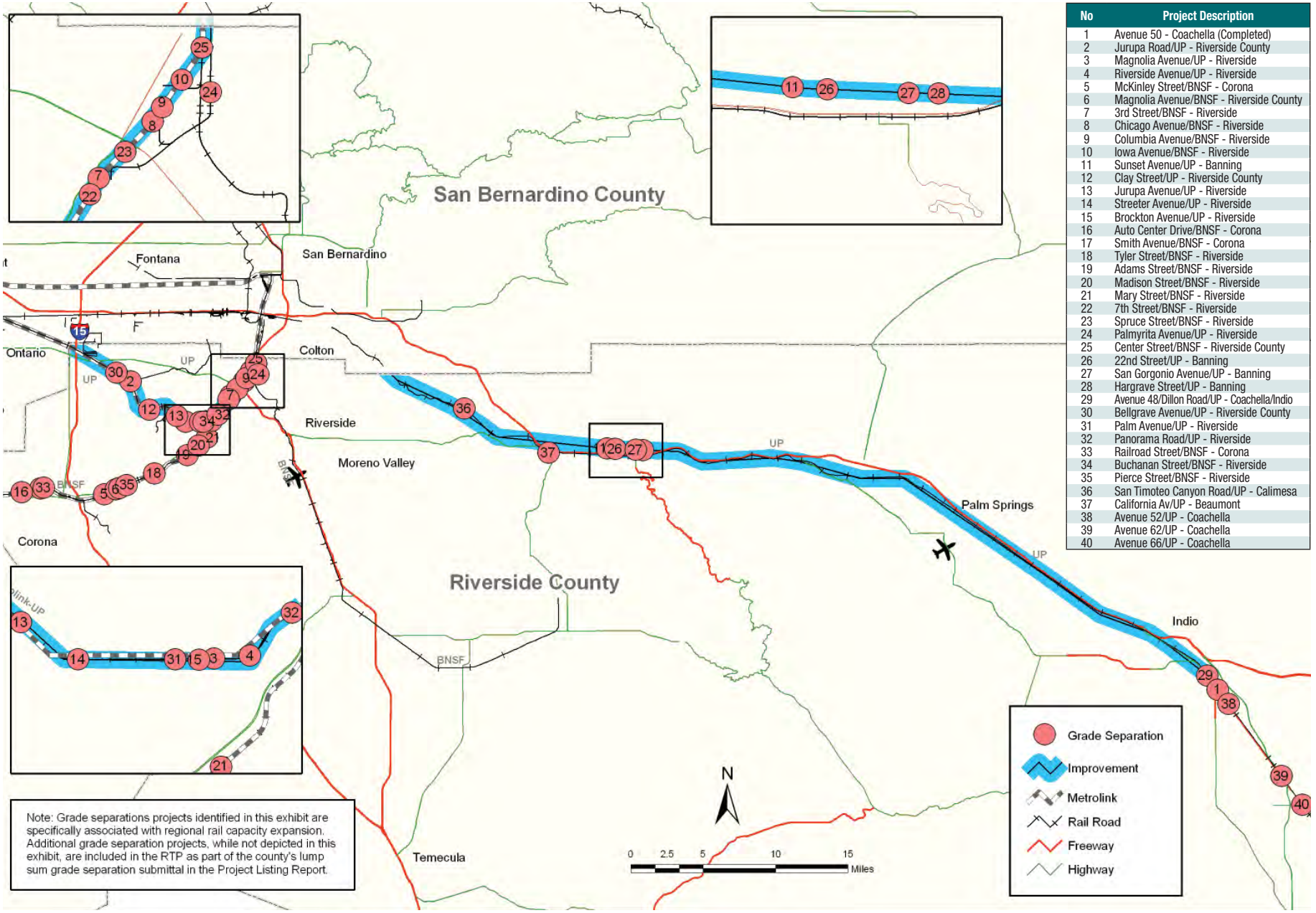
EXHIBIT 3.12 GRADE SEPARATION PROJECTS IN ORANGE COUNTY



No	Project Description
1	Melrose Street Undercrossing (Completed)
2	Bradford Avenue Closure (Completed)
3	Imperial Highway Overcrossing
4	State College Boulevard Undercrossing
5	Placentia Avenue Undercrossing
6	Kraemer Boulevard Undercrossing
7	Orangethorpe Avenue Overcrossing
8	Tustin Avenue/Rose Drive Overcrossing
9	Jefferson Street Overcrossing
10	Van Buren Avenue Overcrossing
11	Richfield Road Crossing
12	Lakeview Avenue Overcrossing
13	Kellogg Drive Undercrossing

Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

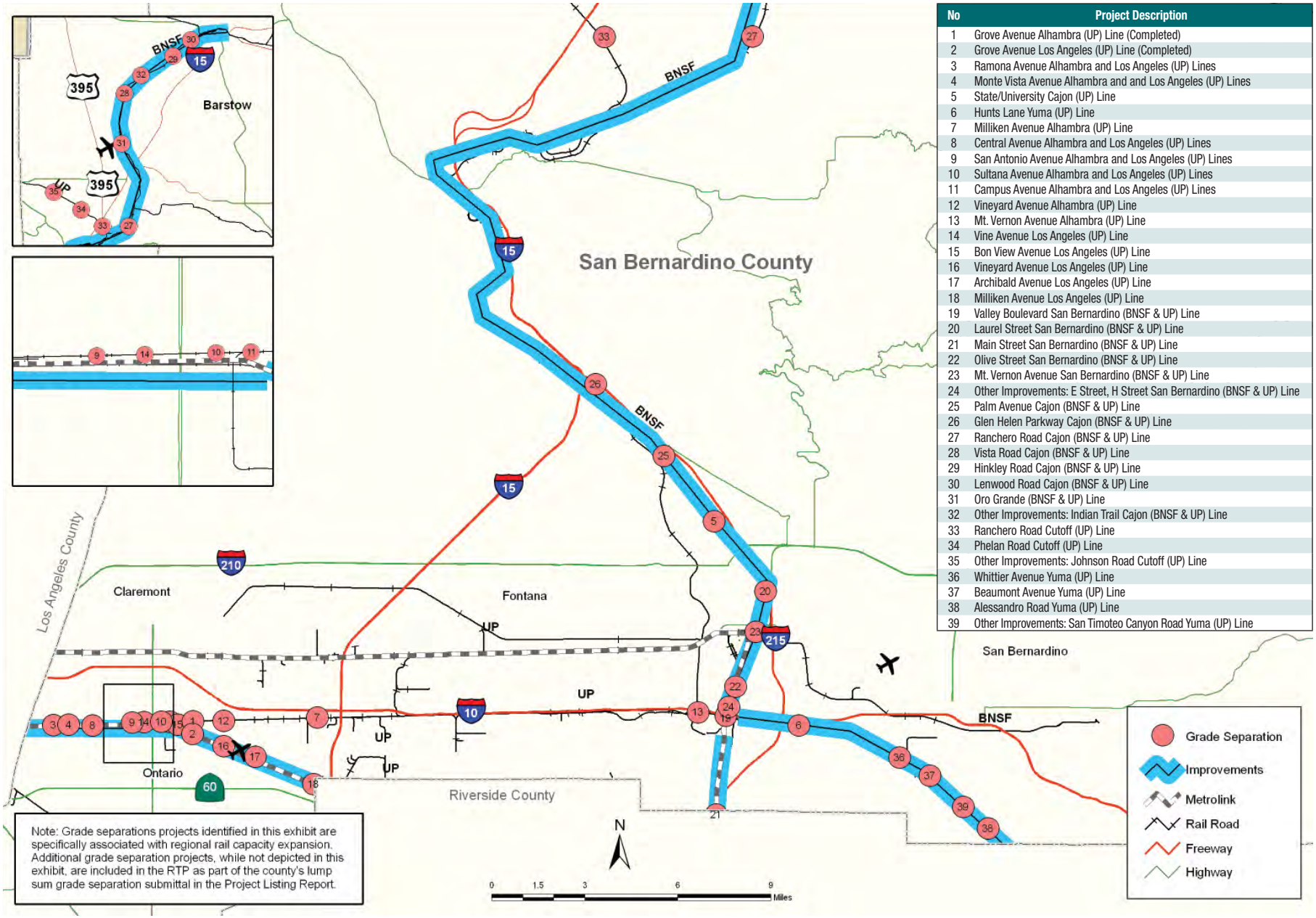
EXHIBIT 3.13 GRADE SEPARATION PROJECTS IN RIVERSIDE COUNTY



No	Project Description
1	Avenue 50 - Coachella (Completed)
2	Jurupa Road/UP - Riverside County
3	Magnolia Avenue/UP - Riverside
4	Riverside Avenue/UP - Riverside
5	McKinley Street/BNSF - Corona
6	Magnolia Avenue/BNSF - Riverside County
7	3rd Street/BNSF - Riverside
8	Chicago Avenue/BNSF - Riverside
9	Columbia Avenue/BNSF - Riverside
10	Iowa Avenue/BNSF - Riverside
11	Sunset Avenue/UP - Banning
12	Clay Street/UP - Riverside County
13	Jurupa Avenue/UP - Riverside
14	Streeter Avenue/UP - Riverside
15	Brockton Avenue/UP - Riverside
16	Auto Center Drive/BNSF - Corona
17	Smith Avenue/BNSF - Corona
18	Tyler Street/BNSF - Riverside
19	Adams Street/BNSF - Riverside
20	Madison Street/BNSF - Riverside
21	Mary Street/BNSF - Riverside
22	7th Street/BNSF - Riverside
23	Spruce Street/BNSF - Riverside
24	Palmyrita Avenue/UP - Riverside
25	Center Street/BNSF - Riverside County
26	22nd Street/UP - Banning
27	San Gorgonio Avenue/UP - Banning
28	Hargrave Street/UP - Banning
29	Avenue 48/Dillon Road/UP - Coachella/Indio
30	Bellgrave Avenue/UP - Riverside County
31	Palm Avenue/UP - Riverside
32	Panorama Road/UP - Riverside
33	Railroad Street/BNSF - Corona
34	Buchanan Street/BNSF - Riverside
35	Pierce Street/BNSF - Riverside
36	San Timoteo Canyon Road/UP - Calimesa
37	California Av/UP - Beaumont
38	Avenue 52/UP - Coachella
39	Avenue 62/UP - Coachella
40	Avenue 66/UP - Coachella

Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 3.14 GRADE SEPARATION PROJECTS IN SAN BERNARDINO COUNTY



No	Project Description
1	Grove Avenue Alhambra (UP) Line (Completed)
2	Grove Avenue Los Angeles (UP) Line (Completed)
3	Ramona Avenue Alhambra and Los Angeles (UP) Lines
4	Monte Vista Avenue Alhambra and and Los Angeles (UP) Lines
5	State/University Cajon (UP) Line
6	Hunts Lane Yuma (UP) Line
7	Milliken Avenue Alhambra (UP) Line
8	Central Avenue Alhambra and Los Angeles (UP) Lines
9	San Antonio Avenue Alhambra and Los Angeles (UP) Lines
10	Sultana Avenue Alhambra and Los Angeles (UP) Lines
11	Campus Avenue Alhambra and Los Angeles (UP) Lines
12	Vineyard Avenue Alhambra (UP) Line
13	Mt. Vernon Avenue Alhambra (UP) Line
14	Vine Avenue Los Angeles (UP) Line
15	Bon View Avenue Los Angeles (UP) Line
16	Vineyard Avenue Los Angeles (UP) Line
17	Archibald Avenue Los Angeles (UP) Line
18	Milliken Avenue Los Angeles (UP) Line
19	Valley Boulevard San Bernardino (BNSF & UP) Line
20	Laurel Street San Bernardino (BNSF & UP) Line
21	Main Street San Bernardino (BNSF & UP) Line
22	Olive Street San Bernardino (BNSF & UP) Line
23	Mt. Vernon Avenue San Bernardino (BNSF & UP) Line
24	Other Improvements: E Street, H Street San Bernardino (BNSF & UP) Line
25	Palm Avenue Cajon (BNSF & UP) Line
26	Glen Helen Parkway Cajon (BNSF & UP) Line
27	Ranchero Road Cajon (BNSF & UP) Line
28	Vista Road Cajon (BNSF & UP) Line
29	Hinkley Road Cajon (BNSF & UP) Line
30	Lenwood Road Cajon (BNSF & UP) Line
31	Oro Grande (BNSF & UP) Line
32	Other Improvements: Indian Trail Cajon (BNSF & UP) Line
33	Ranchero Road Cutoff (UP) Line
34	Phelan Road Cutoff (UP) Line
35	Other Improvements: Johnson Road Cutoff (UP) Line
36	Whittier Avenue Yuma (UP) Line
37	Beaumont Avenue Yuma (UP) Line
38	Alessandro Road Yuma (UP) Line
39	Other Improvements: San Timoteo Canyon Road Yuma (UP) Line

Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

analysis carried out by the IBI Group considered the application of an HSRT system for the movement of containers (logistics and systems technology) to and from the San Pedro Bay Ports. This container movement system would provide a high-capacity, fast, and efficient method of moving containerized cargo from the Ports to an inland port facility in San Bernardino. The system capitalizes on the inherent savings of multiple uses on a single infrastructure by operating on shared alignments with the HSRT passenger system. The technology permits operation of HSRT freight vehicles on a shared guideway with passenger vehicles even during peak hour service. Freight vehicle trips can be interspersed with passenger trips while still meeting required passenger vehicle headways. Additionally, full utilization of the freight line can be achieved during the passenger system's off-peak hours. The deployment of the HSRT system would create value in associated components which could in turn contribute to the HSRT's total financial performance.

The connection for the HSRT system would begin at the Ports and join up with the IOS2 at a point just east of LAUPT. This alignment runs north-south and is assumed to follow a route parallel to the I-710/Alameda Corridor. After connecting to the IOS and other segments, the freight-only service would be interspersed with passenger service.

As Table 3.9 shows, current estimates indicate that the HSRT container movement system is capable of moving over 9.2 million Twenty-foot Equivalent Units (TEUs) annually. The total freight component is estimated to cost nearly $18 billion in nominal dollars.

For a more detailed discussion of the regional HSRT system and associated documentation on its financial performance, refer to the supplemental HSRT Report. Critical to the implementation of an alternative technology system, such as this HSRT system, the location of inland port facilities and associated costs need to be further evaluated. The development of inland ports served by the system would reduce truck VMT, lower emissions, and encourage efficient patterns of industrial development and land use.

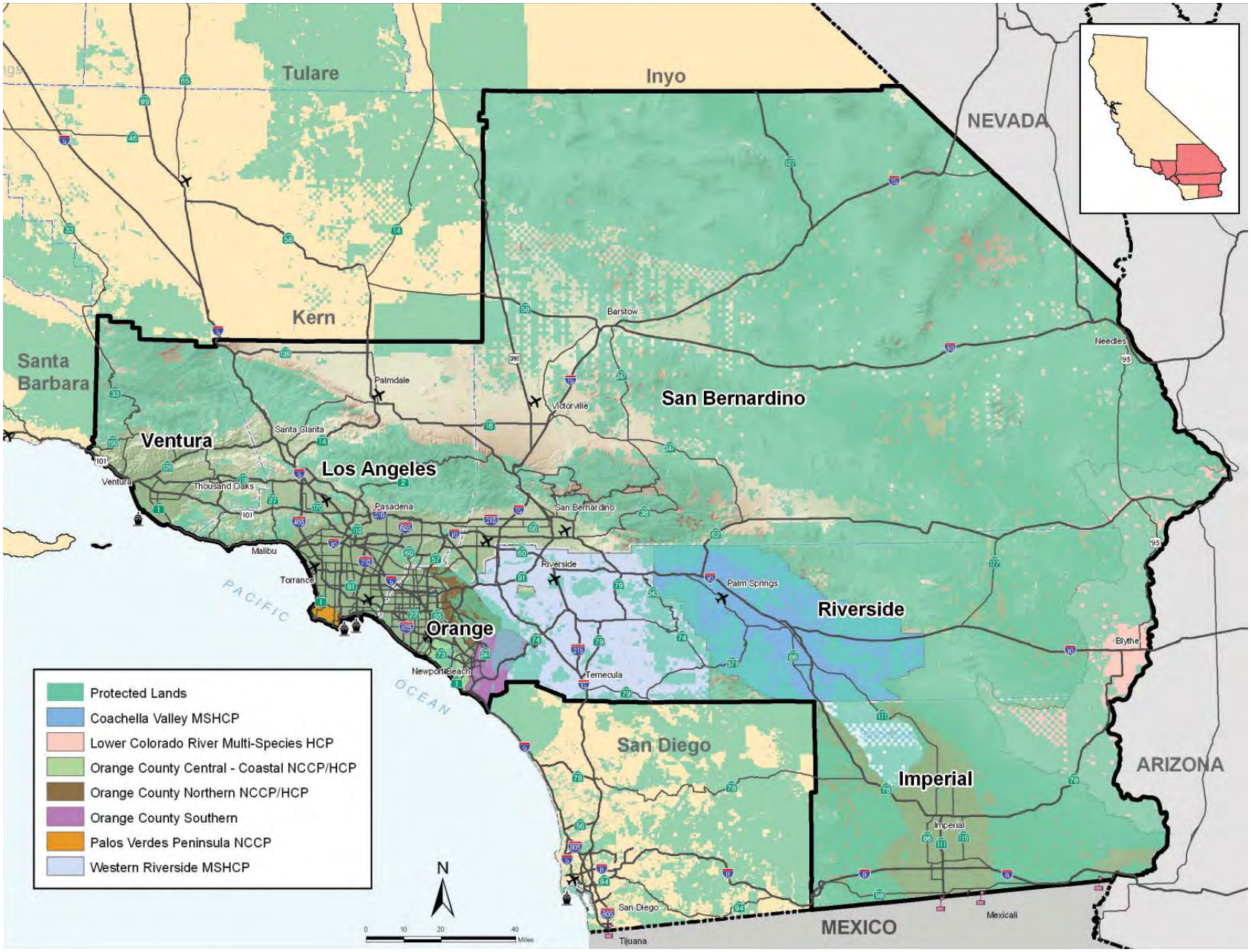
[2] Initial Operating Segment, or IOS, is discussed in further detail in the supplemental HSRT Report and Appendices.

Mitigating Environmental Impacts

California law requires SCAG to prepare and certify a Program Environmental Impact Report (PEIR) prior to adopting the RTP. The PEIR evaluates the environmental impacts of the RTP and proposes specific measures to mitigate impacts to the maximum extent feasible. Although the 2008 RTP, in and of itself, is a plan to mitigate the transportation-related effects of population growth, such as traffic congestion and poor air quality, because the transportation improvements can result in additional growth, the PEIR goes further by recommending additional environmental mitigation at the program level for those resource areas that would be affected by the Plan (and associated growth) such as land use, open space, biological resources, water and energy. The section below summarizes the mitigation program. A list of all the mitigation measures included in the 2008 RTP PEIR will be included in the Environmental Mitigation Report of the Final 2008 RTP.

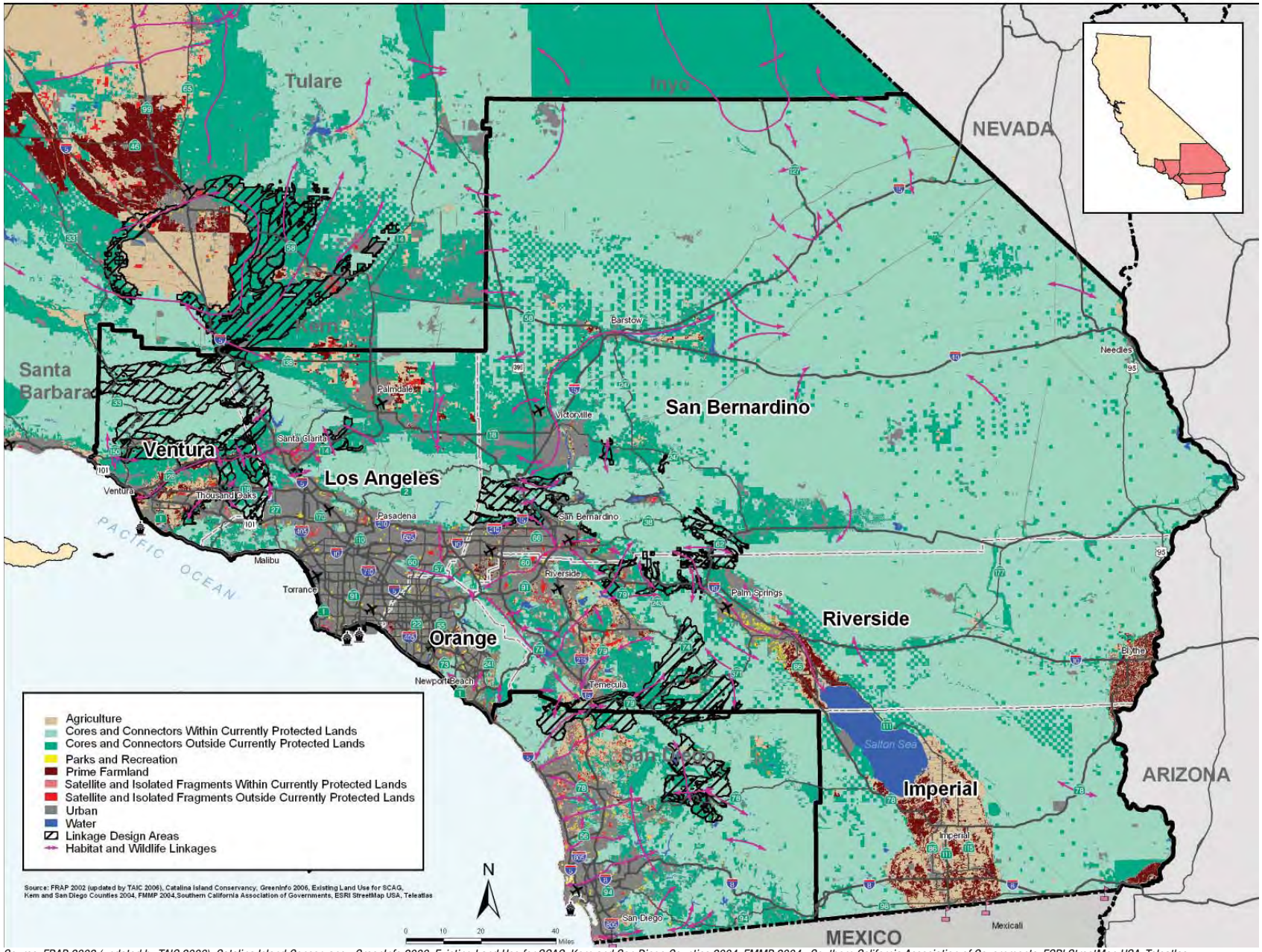
The general purpose of the mitigation measures included in the PEIR and summarized below, is to identify how to protect the environment, improve air quality, and promote energy efficiency in concert with the proposed transportation improvements and related planning. They provide a framework through which implementing agencies and subregions can address the environmental impacts of RTP projects, while implementing RTP goals and policies. The PEIR provides three different types of mitigation measures. The first type can be implemented by SCAG at the regional level. These measures are generally aimed at gathering additional information that can assist in measuring impacts and determining appropriate mitigation and promoting policies that reduce impacts. The second type of measures are to be implemented at the local level by implementing agencies, and individual cities and counties. These measures can strengthen planning documents to ensure for provision of mitigation in the planning process. The third type of measures are project specific and seek to reduce impacts for the myriad different types of projects anticipated in the region. As a programmatic document, many of the measures in the PEIR refer to performance standards because site-specific conditions are not reasonably evaluated at the programmatic level.

EXHIBIT 3.15 PROTECTED LANDS, NATURAL COMMUNITY CONSERVATION PLANS (NCCP) AND HABITAT CONSERVATION PLANS (HCP)



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas, California Legacy Project 2005

FIGURE 3.16 REGIONAL OPEN SPACE INFRASTRUCTURE



Source: FRAP 2002 (updated by TAIC 2006), Catalina Island Conservancy, GreenInfo 2006, Existing Land Use for SCAG, Kern and San Diego Counties 2004, FMMP 2004, Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

Summary of the Environmental Mitigation Program

As required by SAFETEA-LU, the RTP includes an environmental mitigation program that links transportation planning to the environment. Building on its strong commitment to the environment as demonstrated in the 2004 PEIR, SCAG's mitigation program creates an implementation strategy to show varying levels of authority (state, regional, and local). This mitigation discussion also utilizes documents created by the federal agencies to guide environmental planning for transportation projects.

OPEN SPACE

Section 6001(i) of SAFETEA-LU requires that long-range transportation plans such as the RTP include a discussion of potential environmental mitigation activities along with potential sites to carry out these activities. As a result of this expanded requirement, SCAG enhanced its Open Space Program to evaluate potential sites to mitigate the impacts associated with transportation activities. The RTP includes two regional scale maps (Exhibits 3.15 and 3.16) that identify sensitive environmental resources, such as protected lands and sensitive habitats. As part of the open space planning effort undertaken for the Regional Comprehensive Plan, SCAG completed a comprehensive evaluation of open space resources in the region, including Kern and San Diego Counties. SCAG collected GIS data from existing sources to assist with and inform the evaluation of open space planning issues. SCAG then evaluated and analyzed the data to show the distribution of existing open space resources, levels of existing and planning protection, and areas of key habitat linkages. Concurrent with this mapping effort, and as required under SAFETEA-LU, SCAG reviewed existing plans and programs to determine which areas were covered by conservation strategies.

According to the Federal Highways Administration, there are more than 3.9 million centerlane miles of public roads that span the United States. Each day, an estimated one million animals are killed on roads, making road kill the greatest human cause of wildlife mortality in the country. The open space program seeks to minimize transportation-related impacts on wildlife, and also better integrate transportation infrastructure into the environment.

Locations for Mitigation

Exhibit 3.15 shows the distribution of protected and unprotected lands within the SCAG Region and its vicinity. It also shows the location of county-level conservation efforts such as Habitat Conservation Plans (HCPs) and Natural Communities Conservation Plans (NCCPs). Although portions of these areas fall within the "protected" category, large portions of habitat within these areas remain "unprotected" and therefore should still be considered for mitigation activities. Beyond looking at just protected and unprotected lands, SCAG mapped locations of the protected and unprotected areas in relation to wildlife linkages, linkage design areas, park and recreation areas (from SCAG's 2005 land use inventory), agricultural lands, and developed lands. Together, these form the region's open space infrastructure. Exhibits 3.15 and 3.16 demonstrate areas where project sponsors should consider directing mitigation activities. Specifically, those areas that are "unprotected" could be possible locations for mitigation. Although SCAG does not have the authority to purchase or manage lands, conservation of these areas will be achieved through already-established programs or through compacts facilitated by SCAG.

Types of Mitigation Activities

The mitigation program of the 2008 RTP generally includes strategies to reduce impacts where transportation and sensitive lands intersect and also encourages smart land use strategies that maximize the existing system and eliminate the need for new facilities that might impact open space and habitat. Potential mitigation programs include better planning of transportation projects to avoid or lessen impacts to open space, recreation land, and agricultural lands through information and data sharing, increasing density in developed areas, and minimizing development in previously undeveloped areas that may contain important open space.

The mitigation program also emphasizes the importance of integrating consideration of wildlife and habitat into the design of transportation facilities in those areas where impacts cannot be avoided. SCAG encourages project sponsors to review Ventura County's Wildlife Crossing Guidelines and FHWA's Critter Crossings. Both documents provide examples of context-sensitive solutions (CSS) which is a way of involving all stakeholders to develop transportation facilities that fit their physical setting and preserve scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist. CSS principles include the employment of early, continuous, and meaningful involvement of the public and all stakeholders throughout the project development process. Additional information on CSS is available on FHWA's website at: http://www.fhwa.dot.gov/context/index.cfm

In summary, the open space mitigation programs include the following types of measures:

- Identifying open space areas that can be preserved and developing mitigation measures such as mitigation banking, transfer of development rights (for agricultural lands), and payment in lieu of fees
- Updating General Plan information from cities to provide the most recent land use data to the region
- Coordinating with cities and counties to implement growth strategies that maximize the existing transportation network
- Evaluating project alternatives and alternative route alignments where projects intersect with sensitive habitats
- Integrating the planning of transportation facilities with context-sensitive design elements such as wildlife crossings



ENERGY

As the region continues to add more people, households and jobs, the demand for energy will continue to grow. Every day, the SCAG Region consumes over 23 million gallons of oil and the SCAG Region's vehicle fuel consumption has increased 20 percent over the last ten years.[3] In the face of this growth in energy demand and concerns about future oil supplies, there is the mounting realization that we are living in an energy-constrained world. As such, the 2008 RTP includes strategies to reduce Vehicle Miles Traveled (VMT), and as a result, per capita energy consumption from the transportation sector. The PEIR also includes mitigation measures relating to energy designed to reduce

[3] California Department of Transportation, Division of Transportation System Information. (December 2006.) California Motor Vehicle Stock, Travel and Fuel Forecast.

consumption and increase the use and availability of renewable sources of energy in the region.

The mitigation program in the PEIR generally includes opportunities to reduce petroleum vehicle fuel consumption and increase energy efficiency in the region. Potential mitigation programs include coordinating transportation, land use and air quality planning to reduce VMT, energy use and greenhouse gas emissions as well as increasing automobile fuel efficiency and construction of infrastructure to accommodate increased use of motor vehicles powered by alternative fuels. In California, efforts are underway to reduce petroleum use, reduce emissions from light-duty vehicles, reduce the carbon intensity of fuels, improve transportation energy efficiency, and encourage smart land use and intelligent transportation strategies.

In addition to transportation strategies, building design and housing types also have a strong relationship to energy use and efficiency. The mitigation program generally includes energy-efficient building practices, smarter land use planning with a focus on access to public transportation, and participation in energy efficiency incentive programs. All publicly owned utilities and most municipality-owned utilities that provide electric or natural gas service also administer energy conservation programs. These programs typically include home energy audits; incentives for replacement of existing appliances with new, energy-efficient models; and provision of resources to inform businesses on development and operation of energy-efficient buildings.

In summary, the energy mitigation program includes the following types of measures:

- Considering best practices and technological improvements that can reduce the consumption of fossil fuels such as modernizing older engines and equipment
- Developing programs to reduce single-occupancy vehicle trips such as telecommuting, ridesharing, alternative work schedules, and parking cash-out (offering employees a cash allowance in lieu of a parking space)
- Creating communities where people live closer to work, bike, walk, and take transit as a substitute for personal auto travel
- Integrating green building measures into project design and zoning such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program

As stated above, energy experts have suggested that there is a potential for energy demand to exceed supply. Recommendations to reduce energy consumption are included in the EIR as mitigation measures. Over the next RTP planning cycle, as technology evolves, SCAG will continue to refine recommendations to reduce regional energy consumption.

AIR QUALITY AND CLIMATE CHANGE

The 2008 RTP includes programs, policies and measures to address air emissions including greenhouse gases. Measures that help mitigate air emissions, including GHG emissions, are comprised of strategies that reduce congestion, increase access to public transportation, improve air quality, and enhance coordination between land use and transportation decisions. SCAG's vision includes the introduction of a high-speed, high-performance regional transport system that may potentially reduce airport and freeway congestion and provide an alternative to the single-occupancy automobile. In order to disclose potential environmental effects of the RTP, SCAG has prepared an estimated inventory of the region's existing GHG emissions, identified mitigation measures, and compared alternatives in the PEIR. The mitigation measures seek to achieve the maximum feasible and cost-effective reductions in emissions. There are difficulties in quantifying reductions in GHG emissions due to insufficient data. During the next RTP cycle, SCAG will focus on refining techniques to better estimate emission reductions associated with identified mitigation measures.

The air quality mitigation program includes, but is not limited to, the following types of measures:

- ARB measures that set new on-road and off-road engine standards and accelerate turnover of higher emitting engines from the in-use fleet;
- Project specific measure to reduce impacts from construction activities such as the use of water and dust suppressants and restrictions on trucks hauling dirt, sand and soil.
- Encouragement of green construction techniques such as using the minimum amounts of GHG emitting construction equipment; and
- Incorporating planting of shade trees into construction projects where feasible

In addition, the RTP includes Transportation Control Measures (TCMs), which are those projects that reduce congestion and improve air quality in the region.

TRANSPORTATION

The 2035 transportation model takes into account the population, households, and employment projected for 2035, and therefore the largest demand on the transportation system expected during the lifetime of the 2008 RTP. In accounting for the effects of regional population growth, the model output provides a regional, long-term and cumulative level of analysis for the impacts of the 2008 RTP on transportation resources. The regional growth and thus cumulative impacts are captured in the VMT, VHT, and heavy-duty truck VHT data.

Implementation of the 2008 RTP would include implementation of a series of projects which are described in the Regional Transportation Plan. The 2035 transportation system performance is compared to the performance of the existing (2008) system for the purpose of determining the significance of impacts.

The transportation mitigation program includes the following types of measures:



- Increasing rideshare and work-at-home opportunities to reduce demand on the transportation system
- Investments in non-motorized transportation and maximizing the benefits of the land use-transportation connection
- Travel Demand Management (TDM) measures
- Goods movement capacity enhancements
- Key transportation investments targeted to reduce heavy-duty truck delay

POPULATION AND HOUSING

Transportation projects including new and expanded infrastructure are necessary to improve travel time and can enhance quality of life for those traveling throughout the region. However, these projects also have the potential to induce population growth in certain areas of the region. Although SCAG does not anticipate that the RTP would affect the total growth in population in the region, the RTP has the ability to affect the distribution of that growth. In addition to induced population growth, transportation projects in the RTP

also have the potential to divide established communities, primarily through acquisition of rights-of-way.

The population and housing mitigation program includes the following types of measures:

- Develop advisory land use policies and strategies that utilize the existing transportation network and enhance mobility while reducing land consumption
- Require project implementation agencies to provide relocation assistance, as required by law, for residences and businesses displaced
- Require project implementation agencies to design new transportation facilities that consider existing communities

LAND USE

The 2008 RTP contains transportation projects to help more efficiently distribute population, housing, and employment growth. These transportation projects are generally consistent with the county- and regional-level general plan data available to SCAG. However, general plans are not updated consistently. In addition, the RTP's horizon year of 2035 is beyond the timeline of even the most recent general plans.

The land use mitigation program includes the following types of measures:

- Encourage cities and counties to update their general plans and provide the most recent plans to SCAG
- Work with member cities to ensure that transportation projects are consistent with the RTP and general plans
- Work with cities and counties to ensure general plans reflect RTP policies

AESTHETICS

The SCAG Region includes several highway segments that are recognized by the State of California as designated scenic highways or are eligible for such designation. Construction and implementation of projects in the RTP could impact designated scenic highways and restrict or obstruct views of scenic resources such as mountains, ocean, rock outcroppings, etc. In addition, some transportation projects could add urban visual elements, such as transportation infrastructure (highways, transit stations) to previously natural areas.

In summary, the aesthetics mitigation program includes the following types of measures:

- Require project implementation agencies to implement design guidelines to protect views of scenic corridors
- Require project implementation agencies to use construction screens and barriers that complement the existing landscape
- Require project implementation agencies to complete design studies for projects in designated or eligible scenic highways
- In visually sensitive areas, require local land use agencies to apply development standards and guidelines that maintain compatibility

PUBLIC SERVICES

Impacts to public services from the 2008 RTP generally include additional demands on fire and police services, schools and landfills. Additional police and fire personnel would be needed to adequately respond to emergencies and routine calls, particularly on new or expanded transportation facilities. The 2008 RTP's influence on growth could contribute to impacts on public schools, requiring additional teachers and educational facilities. Additional population growth could result in a greater demand for solid waste disposal facilities. Furthermore, collecting solid waste and transporting it to an available disposal facility would impact roads and railways.

In summary, the public services mitigation program includes the following types of measures:

- Require the project implementation agencies to identify police protection, fire service, emergency medical service, waste collection and public school needs and coordinate with local officials to ensure that the existing public services would be able to handle the increase in demand for their services
- Require the project implementation agencies to identify the locations of existing utility lines and avoid all known utility lines during construction
- Encourage green building measures to reduce waste generation and reduce the amount of waste sent to landfills
- Encourage the use of fire-resistant materials and vegetation when constructing projects in areas with high fire threat

BIOLOGICAL RESOURCES

Impacts to biological resources generally include displacement of native vegetation and habitat on previously undisturbed land; habitat fragmentation and decrease in habitat connectivity; and displacement and reduction of local, native wildlife including sensitive species. Building new transportation routes and facilities through undisturbed land or expanding facilities and increasing the number of vehicles traveling on existing routes will directly injure wildlife species, cause wildlife fatalities, and disturb natural behaviors such as breeding and nesting. This will result in the direct reduction or elimination of species populations (including sensitive and special-status species) and native vegetation (including special-status species and natural communities) as well as the disruption and impairment of ecosystem services provided by native habitat areas.

The biological resources mitigation program includes the following types of measures:

- Planning transportation routes to avoid/minimize removal of native vegetation, displacement of wildlife, and impacts to regionally and locally significant habitat types such as oak woodlands, vernal pools, estuaries, lagoons, and other riparian areas
- Including provisions for habitat enhancement such as mitigation banking, improving/retaining habitat linkages, preserving wildlife corridors and wildlife crossings to minimize the impact of transportation projects on wildlife species and habitat fragmentation
- Conducting appropriate surveys to ensure no sensitive species' habitat or special-status natural communities is unnecessarily destroyed
- Avoiding and minimizing impacts to wildlife activities (such as breeding, nesting, and other behaviors) during construction of the project by avoiding construction during critical life stages or sensitive seasons
- Avoiding and minimizing impacts to habitat during project construction through actions such as fencing off sensitive habitat, minimizing vehicular accessibility, and salvaging native vegetation and topsoil
- Minimizing further impacts to wildlife and their habitats after project construction by replanting disturbed areas; providing vegetation buffers at heavily trafficked transportation facilities; and restoring local, native vegetation

GEOLOGY, SOILS, AND SEISMICITY

Impacts to geological resources generally include the disturbance of unstable geologic units (rock type) or soils, causing the loss of topsoil and soil erosion, slope failure, subsidence, project-induced seismic activity and structural damage from expansive soils. These activities, in addition to building projects on and around Alquist-Priolo Fault Zones and other local faults, could expose people and/or structures to the risk of loss, injury, or death.

The geological mitigation program includes the following types of measures:

- Employing appropriate grading, construction practices, siting, and design standards, such as adherence to the California Building Code and State of California design standards
- Obtaining site-specific geotechnical data from qualified geotechnical experts
- Complying with all relevant local, state, and federal construction and design requirements for structures located on or across Alquist-Priolo Fault Zones and other local faults

CULTURAL RESOURCES

Impacts to cultural resources generally include substantial adverse changes to historical and archaeological resources and direct or indirect changes to unique paleontological resources or sites or unique geological features. Adverse changes include the destruction of culturally and historically (recent or geologic time) significant and unique historical, archaeological, paleontological, and geological features.

The cultural resources mitigation program includes the following types of measures:

- Obtaining consultations from qualified cultural and paleontological resource experts to identify the need for surveys and preservation of important historical, archaeological, and paleontological resources
- Implementing design and siting measures that avoid disturbance of cultural and paleontological resource areas, such as creating visual buffers/landscaping or capping/filling the site to preserve the contextual setting of the resource
- Monitoring construction activity in areas with moderate to high potential to support paleontological resources and overseeing salvage operations of paleontological resources
- Consulting local tribes and the Native American Heritage Commission for project impacts to sacred lands and burial sites

WATER RESOURCES

Impacts to water resources from the 2008 RTP include potential water quality impairment from increased impervious surfaces. Increased impervious surfaces in water recharge areas potentially impact groundwater recharge and groundwater quality. Cumulative impacts from the projected growth induced by the RTP include increased impervious surfaces; increased development in alluvial fan floodplains; and increased water demand and associated impacts, such as drawdown of groundwater aquifers. Increased output of greenhouse gases from the region's transportation system impacts the security and reliability of the imported water supply.

The water resources mitigation program includes the following types of measures:

- Utilizing advanced water capture and filtration techniques, showing a preference for naturalized systems and designs, to control stormwater at the source
- Avoiding any new construction of impervious surfaces in non-urbanized areas, such as wetlands, habitat areas, parks, and near river systems
- Avoiding any new construction that provides access to flood-prone areas, such as in alluvial fans and slide zones
- Protection and preservation of existing natural flood control systems, such as wetlands and riparian buffers, and expansion of such systems in areas where they do not currently exist
- Constructing projects according to Best Management Practices for water quality protection and water conservation, including low-impact development and green building standards

- Coordinating project development and construction efforts across jurisdictional, agency, and departmental boundaries, to increase project benefits

HAZARDOUS MATERIALS

Implementation of the 2008 RTP would affect the transportation and handling of hazardous materials in the SCAG Region. Expected significant impacts include risk of accidental releases due to an increase in the transportation of hazardous materials and the potential for such releases to reach neighborhoods and communities adjacent to transportation facilities.

The hazardous materials mitigation program aims to minimize the significant hazard to the public or the environment that involves the release of hazardous materials into the environment. Potential mitigation programs include active coordination with regulatory agencies and first responders in order to ensure proper handling and transport of hazardous materials and their containers. Mitigation measures also involve ensuring that the project implementation agency complies with all applicable laws, regulations, and health and safety standards set forth by federal, state, and local authorities that regulate the proper handling of such materials and their containers and that the routine transport, use, and disposal of hazardous materials does not create a significant hazard to the public or the environment.

The hazardous materials mitigation programs include the following types of measures:

- Coordinating with regulatory agencies and first responders in order to continue to govern goods movement and hazardous materials transportation throughout the region
- Considering existing and known planned school locations when determining the alignment of new transportation projects and modifications to existing transportation facilities
- Encouraging project sponsors to consider published lists of contaminated properties, which are continually updated, in order to identify cases where new development would involve the disturbance of contaminated properties
- Developing appropriate mitigation measures to assure that worker and public exposure is minimized to an acceptable level and to prevent any further environmental contamination as a result of construction
- Ensuring that project implementation agencies comply with all applicable laws, regulations, and health and safety standards set forth by federal, state, and local authorities that regulate the proper handling of such materials and their containers and that the routine transport, use, and disposal of hazardous materials does not create a significant hazard to the public or the environment

SAFETY AND SECURITY

The SCAG Region is vulnerable to numerous threats that include both natural and human-caused incidents. A large-scale evacuation would be difficult in the SCAG Region. Impacts to safety and security resulting from the 2008 RTP include: 1) impairment of transportation safety, security, and reliability for all people and goods in the region; 2) prohibiting the prevention, protection, response to, and recovery from major human-caused or natural events that would create a significant hazard to the public, threatening and impacting lives, property, the transportation network and the region; and 3) exposure of people or structures to a significant risk of loss, injury or death involving wildland fires. As such, the mitigation programs for Safety and Security in the 2008 RTP aim for extensive coordination, collaboration and flexibility among all of the agencies and organizations involved in planning, mitigation, response and recovery.

The Safety and Security mitigation programs include the following types of measures:

- Continuing deployment and promotion of intelligent transportation system technologies that enhance transportation security
- Establishing transportation infrastructure practices that promote and enhance security
- Establishing a forum where policy-makers can be educated and regional policy can be developed
- Helping to enhance the region's ability to deter and respond to terrorist incidents, and human-caused or natural disasters by strengthening relationships and coordination with transportation agencies
- Working to enhance emergency preparedness awareness among public agencies and with the public at large

NOISE

Some of the principal noise generators within the SCAG Region are associated with transportation (i.e., airports, freeways, arterial roadways, seaports, and railroads). Additional noise generators include stationary sources, such as industrial manufacturing plants and construction sites. Noise impacts resulting from the 2008 RTP generally include exposure of sensitive receptors to noise in excess of normally acceptable noise levels or substantial increases in noise as a result of the operation of expanded or new transportation facilities. As such, the noise mitigation program includes mitigation measures designed to minimize the impact of noise on sensitive receptors as a result of the implementation of the 2008 RTP.

These mitigation measures include ensuring that project implementing agencies comply with all local sound control and noise level rules, regulations, and ordinances; utilizing the best available noise control techniques (including mufflers, intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) in order to minimize construction noise impacts; and utilizing land use planning measures, such as zoning, restrictions on developments, buffers, etc., to minimize exposure to sensitive receptors.

The noise mitigation programs include the following types of measures:

- Encouraging project implementing agencies to comply with all local sound control and noise level rules, regulations, and ordinances
- Developing the best available noise control techniques in order to minimize construction noise impacts
- Conducting a project-specific noise evaluation as part of the appropriate environmental review of each project
- Encouraging project implementation agencies to maximize the distance between noise-sensitive land uses and new roadway lanes, roadways, rail, transit centers, park-and-ride lots, and other new noise-generating facilities



IV. FINANCIAL PLAN



The financial plan identifies how much money is available to support the region's surface transportation investments including transit, highways, local road improvements, system preservation and demand management goals. It also addresses the need for investment in goods movement infrastructure. Improving ground access in and around major goods movement facilities, and enhancing major highways and railways are critical to maintaining the health of Southern California's economy. The 2008 RTP calls for traditional and non-traditional revenue sources for implementing a program of infrastructure and environmental improvements to keep both freight and people moving.

The 2008 RTP financial plan identifies a number of new revenue sources to provide additional funding beyond existing transportation dollars. The SCAG region's financially constrained plan includes a core revenue forecast of existing local, state, and federal sources along with new funding sources that are reasonably available over the time horizon of the RTP. The plan also includes action steps to obtain the revenues necessary for implementing the region's transportation vision. The region has successfully secured the necessary resources to support transportation investments proposed in past RTPs and this plan will continue to meet the necessary milestones for implementation. Since 2002, three counties within the SCAG region (Riverside, San Bernardino, and Orange) reauthorized their local sales tax measures with overwhelming voter approval. More recently, the general electorate of California approved Proposition 1B, the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, which provides $19.9 billion in infrastructure bonds for transportation improvements throughout the state. Additional legislative gains include the protection of Proposition 42 revenues (sales tax on gasoline) for transportation purposes with the passage of Proposition 1A.

In 2006, the State Legislature also reviewed the potential for using public-private partnerships to facilitate project delivery. With the passage of AB 1467 (Nunez, Chapter 32, Statutes of 2006), the state established a framework for moving forward with partnership demonstration projects. Further, AB 521 (Runner, Chapter 542, Statutes of 2006) clarified the State Legislature's role in evaluating partnership proposals, mandating that the Legislature can only disapprove of the proposals. AB 1467 authorizes two public-private partnerships related to goods movement in Southern California. The bill also authorizes the implementation of high-occupancy toll (HOT) lanes, which would allow the region to better utilize its High-Occupancy Vehicle (HOV) lanes and generate toll revenues. Recent passage of AB 1467 and AB 521 provides a sound basis for SCAG's 2008 RTP financial strategies.

In developing the financial plan, SCAG followed a few basic principles to guide its regional financial forecast:

- Incorporate financial planning documents developed by local county transportation commissions and transit operators in the region where available
- Ensure consistency with both local and state planning documents
- Utilize published data sources to evaluate historical trends and augment local forecasts as needed, and
- Recommend new funding sources that target beneficiaries of transportation investments

The rest of the plan outlines our financial strategies and provides documentation of the financial assumptions and methodologies used for forecasting revenues and expenditures.

The Economic Outlook

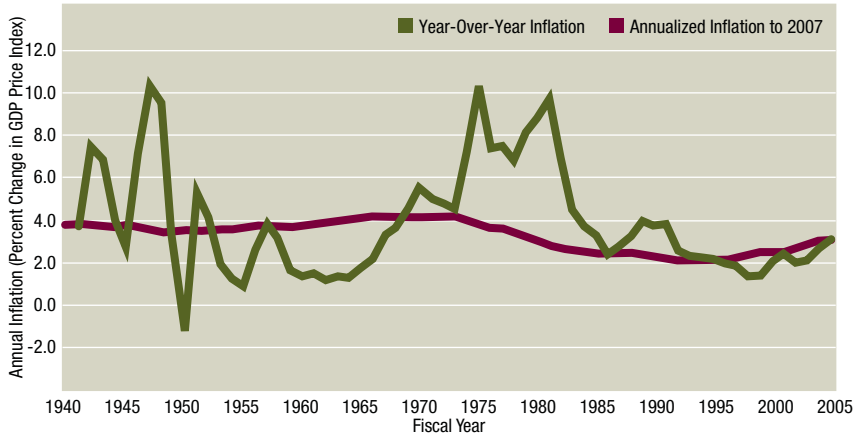
Overall economic conditions play a large role in determining the level of revenues available for transportation. Although it is difficult to predict the future, SCAG's financial model takes a conservative approach in forecasting the latter years of the RTP planning horizon. The approach also includes maintaining historical growth trends for key revenue sources, including locally generated sales tax revenues as well as both state and federal gas tax revenues.



INFLATION

The effect of inflation over a long-range plan is significant, particularly in the last few years when inflation has had nearly 30 years to erode the value of money. This causes both costs and revenues to be higher in nominal dollar terms. Figure 4.1 shows inflation trends since World War II as measured by the Gross Domestic Product (GDP) Price Deflator. Inflation has varied considerably over the long term, but has trended between 2 and 4 percent, as illustrated by the red line. In recent years, inflation has increased. SCAG's revenue model utilizes historical inflation trends as measured by the GDP Price Deflator – an approach consistent with that used by the Federal Office of Management and Budget in preparing the Budget of the United States Government. On the basis of this information, a 3.8 percent inflation rate is used to adjust revenue model data to nominal dollars (year-of-expenditure dollars).

FIGURE 4.1 HISTORICAL INFLATION TRENDS

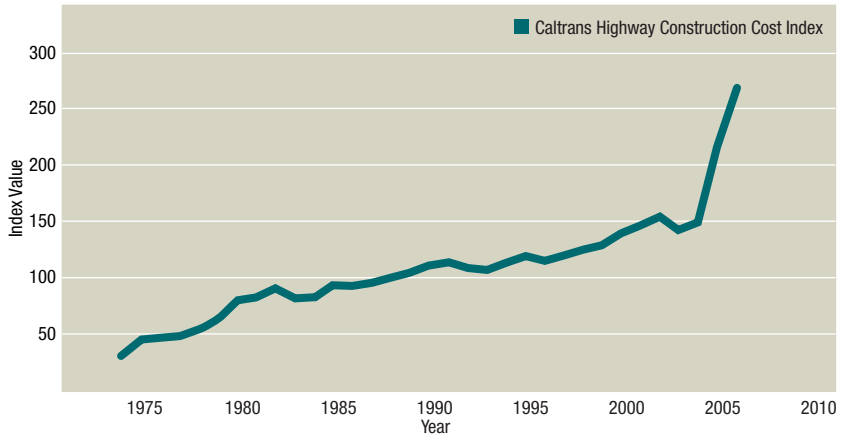


Source: Office of Management and Budget, Budget of the United States Government, Fiscal Year 2008 Budget (FY08).

CONSTRUCTION COST INCREASES

While revenues can be eroded by inflation, construction costs in California and the nation have escalated considerably over the last four years. This has been a major impediment to delivering transportation projects. The recent large increase in construction costs is due to a variety of factors, including a building boom and higher demand for commodities in developing countries, especially China with construction for the 2008 Olympics. Figure 4.2 shows the increase in California highway construction costs. It is unlikely that costs will continue to increase at a such a rapid rate in the future. The increase over the last few years is unprecedented. The financial plan uses a 5.3 percent annual inflation factor to estimate future, nominal costs.

FIGURE 4.2 HIGHWAY PROJECT COSTS



Source: California Department of Transportation



RETAIL SALES GROWTH

Available land, population increases, and new retail locations are the biggest contributors to growth in retail sales. According to statistics from the California Board of Equalization, retail sales grew by 2.3 percent in the SCAG region from FY1978 to FY2004, a period roughly equal in length to the 2008 RTP. Growth was uneven, ranging from 1.3 percent in Los Angeles County to 5.5 percent in Riverside County. The financial plan assumes that uneven growth will continue, with retail sales growth ranging from 1.2 to 4.7 percent.

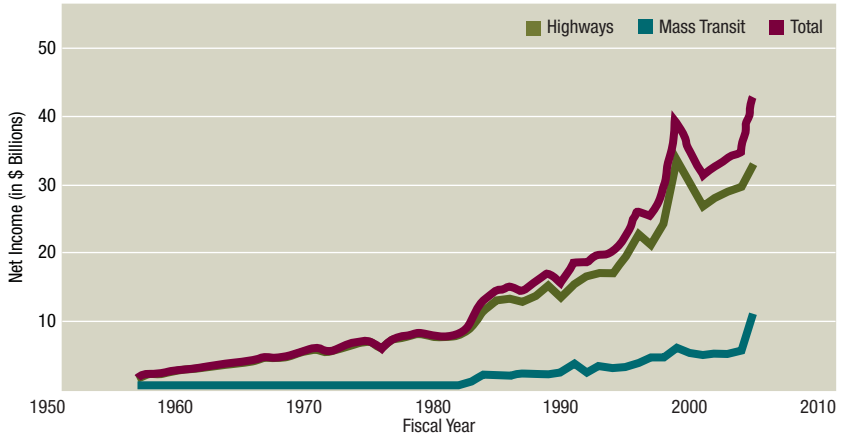
FUEL CONSUMPTION

Taxes on gasoline and diesel fuels are the basis of many transportation revenue sources. These types of revenues are solely dependent on fuel consumption. Over the next several decades, fuel consumption will continue to be impacted by increases in vehicle-miles traveled, increases in conventional vehicle fuel economy, and the adoption of alternative fuel vehicles. While Caltrans estimates that fuel consumption statewide will increase by 1.7 percent between 2004 and 2030, the financial plan takes a more conservative approach and assumes that fuel consumption will not increase over the RTP planning horizon.

STATUS OF THE FEDERAL HIGHWAY TRUST FUND

The Federal Highway Trust Fund provides federal highway and transit funding from a nationally imposed 18.3-cent-per-gallon gasoline tax. The Federal Highway Trust Fund has grown by 3.4 percent annually due to historical increases in fuel consumption, but recently, a larger share is being devoted to transit, as shown in Figure 4.3.

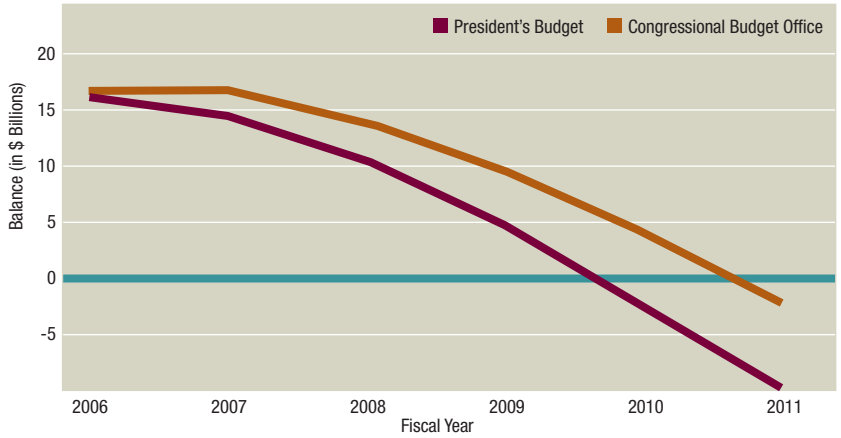
FIGURE 4.3 STATUS OF THE FEDERAL HIGHWAY TRUST FUND



Source: Federal Highway Administration, Federal Highway Statistics 2005

Many public officials and transportation professionals have become concerned about the health of the Federal Highway Trust Fund, as expenditures authorized under Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) have outstripped revenues generated by the tax. Figure 4.4 shows a chart from a recent Government Accountability Office (GAO) analysis of Federal Highway Trust Fund forecasts. Congressional leadership has shown concern over the problem and the SCAG 2008 RTP assumes that Congress will take action to ensure that the Highway Trust Fund maintains current funding levels.

FIGURE 4.4 CURRENT HIGHWAY TRUST FUND YEAR-END BALANCE ESTIMATES

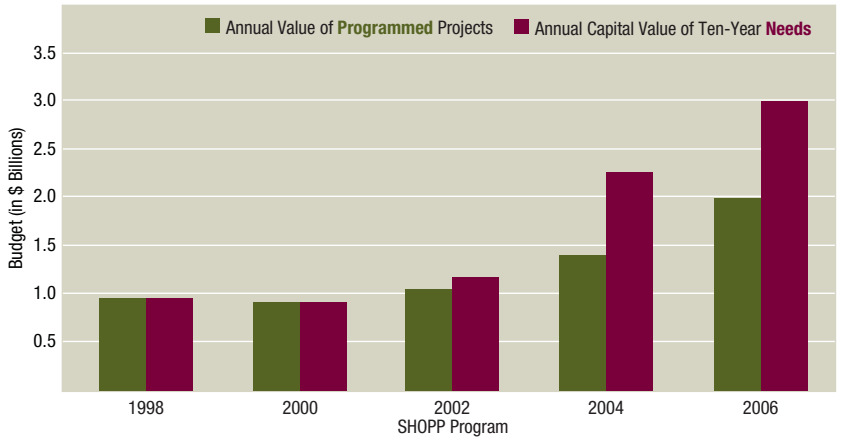


Source: United States Government Accountability Office, Highway Trust Fund: Overview of Highway Trust Fund Estimates, GAO Testimony before the Subcommittee on Highways, Transit, and Pipelines, Committee on Transportation and Infrastructure, GAO-06-572T

STATUS OF THE STATE HIGHWAY ACCOUNT

The viability of the State Highway Account remains a critical issue. The state's gasoline tax revenues are now exclusively dedicated to funding the State Highway Operation and Protection Program (SHOPP). As shown in Figure 4.5, previous levels of funding have been considerably less than actual needs. Continued under investment in the rehabilitation and maintenance needs of the State Highway System has serious ramifications—rapidly increasing the number of distressed lane-miles on the State Highway System and eroding the condition of the state's bridges.

FIGURE 4.5 STATE HIGHWAY OPERATION AND PROTECTION PROGRAM



Source: California Department of Transportation, 2007 Ten-Year SHOPP Plan



Statewide, the 2007 Ten-Year SHOPP Plan identifies $4.2 billion in annual needs, while fiscally constrained funding plan for the next four years are only $1.9 billion annually. The RTP assumes that the State Legislature will address this need through an adjustment in the state gas excise tax and that other revenues will continue to be available for capital projects.

AIR QUALITY ATTAINMENT

Air quality determines the amount of Congestion Mitigation and Air Quality (CMAQ) funding available to the SCAG region. The 2008 RTP assumes that the region will be in attainment for a number of pollutants. It also assumes the severity level for other pollutants will lessen as of 2020. As a result, CMAQ funding is halved.

LOCAL SALES TAX MEASURES

Most of the counties in the SCAG region impose a local sales tax to fund transportation projects. Ventura County is the only county in the region without a dedicated sales tax. In recent years, several local sales taxes have been renewed and the 2008 RTP reflects these additional revenues:

- San Bernardino County renewed Measure I through 2040.
- Riverside County renewed Measure A through 2039.
- Orange County recently renewed Measure M through 2041.

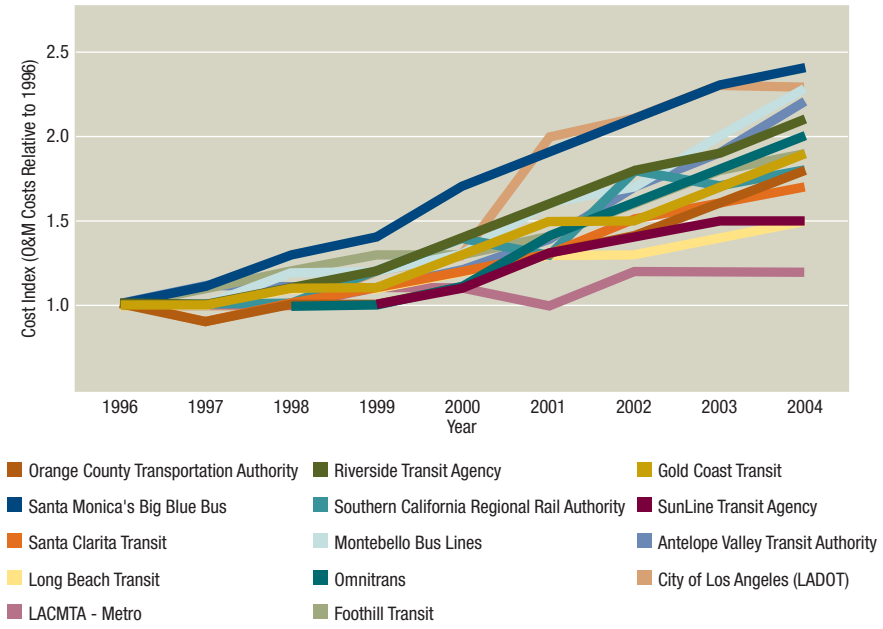
Los Angeles County levies a permanent 1 percent tax (a combination of two half-cent sales taxes). In Imperial County, Measure D will expire in 2010. However, the 2008 RTP assumes an extension of Measure D as part of new revenue sources.

TRANSIT OPERATING AND MAINTENANCE (O&M) COSTS

Future transit O&M costs are difficult to predict because they depend on a variety of factors, such as future revenue-miles of service, labor contracts, and the age of rolling stock. The addition of new transit service and capital proj-

ects, such as the Mid-City/Exposition Corridor Light Rail Transit (LRT), can add to ongoing O&M costs. Over the last decade, these O&M costs grew 1 to 10 percent annually, depending on the transit operator (see Figure 4.6). Some of the differences in O&M growth are due to rapid expansion among the newer operators and outsourcing among the older operators.

FIGURE 4.6 GROWTH IN TRANSIT OPERATING AND MAINTENANCE COSTS



Source: SCAG Analysis of National Transit Database Statistics

For the 2008 RTP, transit O&M costs are estimated based upon historical increases:

- The regional average increase (4 percent) is used for most operators. This assumes that some of the extraordinary increases for individual operators due to rapid expansion will not continue into the future.
- For Los Angeles County, the financial plan relies on detailed forecasts from the county transportation commission. These forecasts are consistent with historical data and take into account large shifts in O&M costs due to major capital projects.

DEBT SERVICE

Local agencies in the SCAG region have historically relied on debt financing to ensure that revenues are available to meet the cash flow requirements of future expenditures. The Los Angeles County Metropolitan Transportation Authority (LACMTA - Metro) has a detailed county financial model that estimates debt service on a project basis. Other county transportation commissions prepare debt service forecasts for rating agencies and report current debt service in their comprehensive annual financial reports (CAFRs). The 2008 RTP includes all outstanding commitments and interest payments on future bonds and commercial paper. Issued debt is expected to remain under debt ceilings. For counties without an established policy, debt service is assumed to be constrained to 50 percent of revenues.

Definition of Revenue Scenarios and Expenditure Categories

CORE AND REASONABLY AVAILABLE REVENUE SCENARIOS

For the 2008 RTP, SCAG prepared two types of revenue forecasts. Both are included in the financially constrained plan:

- Core revenues
- Reasonably available revenues

The *core revenues* identified are those that have been committed or historically available for the building, operations, and maintenance of the current roadway and transit systems in the SCAG region. Essentially, these revenues are existing transportation funding sources projected to FY2036. The core forecast includes neither future increases in tax rates nor extensions of tax

measures beyond their expiration date—unless already approved through ballot initiatives. These revenues provide a benchmark from which additional funding can be identified.

The region's *reasonably available revenues* include new sources of transportation funding likely to materialize within the 2008 RTP time frame. These new sources include adjustments to state and federal gas tax rates based on historical trends, extension of a local option sales tax, localized value capture strategies, container fees, as well as passenger and commercial truck tolls for specified facilities. Reasonably available revenues also include innovative financing strategies, such as private equity participation. In accordance with federal guidelines, the plan includes strategies for ensuring the availability of these sources.

EXPENDITURE CATEGORIES

Transportation expenditures in the SCAG region can be summarized into three main categories:

- Capital costs for state highways, regionally significant arterials, local streets and roads, as well as transit
- Operating and maintenance costs for state highways, regionally significant arterials, local streets and roads, as well as transit
- Debt service payments for current and anticipated bond issuances

Core Revenues

A regional revenue model was developed to forecast the revenues over the entire RTP time horizon. The revenue model is detailed and supports analysis by county or funding source. The basic process for developing the revenue forecast is as follows:

- Build on the revenue forecasts provided by the county transportation commissions
- Add assumptions based on historical data
- Compare historical data to Short-Range Transit Plans and other agency documents
- Work with the transportation commissions to modify assumptions and forecasts as needed

The region's revenue forecast horizon for the 2008 RTP is FY2007 through FY2036. Consistent with federal guidelines, the 2008 RTP takes into account inflation and reports statistics in nominal (year of expenditure) dollars. Table 4.1 shows these core revenues in five-year increments by county.

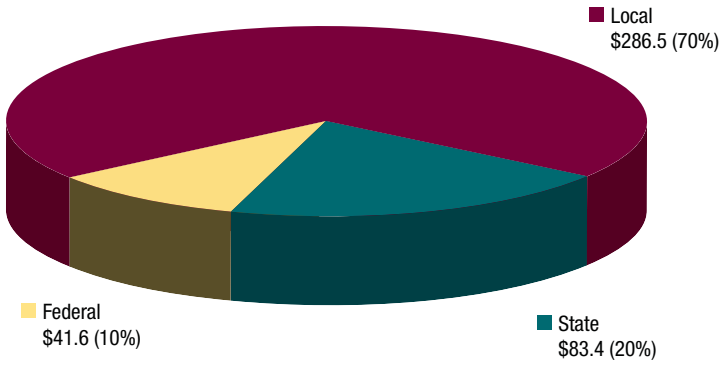
TABLE 4.1 CORE REVENUE FORECAST FY 2007-2036 (IN NOMINAL DOLLARS, BILLIONS)

County	FY2007-11	FY2012-16	FY2017-21	FY2022-26	FY2027-31	FY2032-36	Total
Imperial	$0.4	$0.4	$0.3	$0.4	$0.4	$0.4	$2.3
Los Angeles	$29.1	$30.5	$32.8	$39.7	$45.3	$53.2	$230.6
Orange	$6.8	$7.8	$9.2	$11.5	$14.4	$17.9	$67.7
Riverside	$4.3	$5.3	$6.8	$9.0	$12.9	$18.5	$56.8
San Bernardino	$5.2	$5.7	$6.6	$7.1	$8.9	$11.4	$44.9
Ventura	$1.0	$1.1	$1.2	$1.5	$1.9	$2.4	$9.1
Total	**$46.8**	**$50.7**	**$56.9**	**$69.2**	**$83.8**	**$103.9**	**$411.4**

Note: Numbers may not add due to rounding.

As shown in Figure 4.7, the majority of revenues in the SCAG region come from local sources. The share of state sources (20 percent) has increased since the last RTP (15 percent) as a result of two propositions. Proposition 1A protects funding from the state gasoline sales tax, and Proposition 1B authorizes $19.9 billion in bonds over the next several years to fund existing and new statewide transportation-related infrastructure programs.

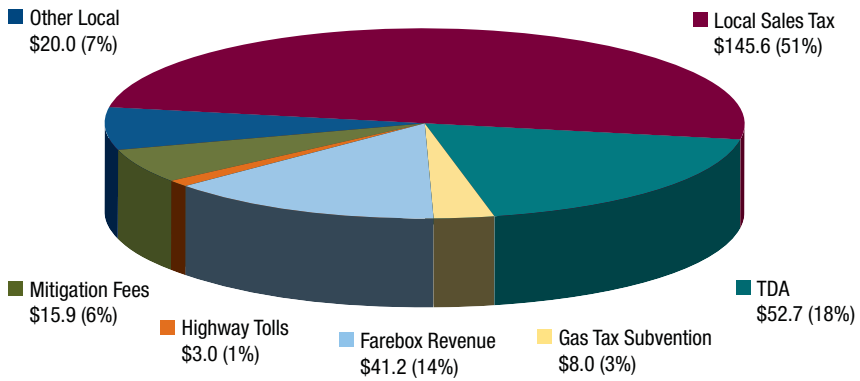
FIGURE 4.7 SCAG REGIONAL REVENUES (IN NOMINAL DOLLARS) $411.4 BILLION TOTAL



Source: SCAG Revenue Model 2007

Note: Numbers may not add due to rounding.

FIGURE 4.8 SCAG REGIONAL REVENUES, LOCAL SOURCES (IN NOMINAL DOLLARS) $286.5 BILLION TOTAL



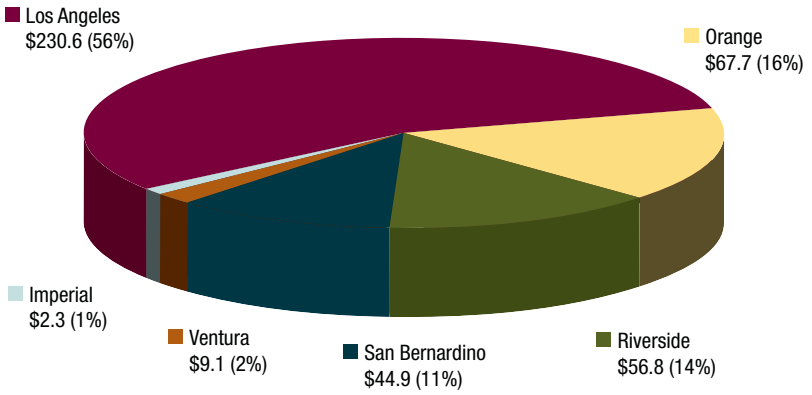
Source: SCAG Revenue Model 2007

Note: Numbers may not add due to rounding.

Local option sales taxes provide the largest single source of local funding as shown in Figure 4.8 and compose roughly a third (35.6 percent) of overall funding for the RTP. Local sales tax revenues have been boosted by the renewal of several local measures.

Specifically, sales tax extensions have significantly increased the funding available in San Bernardino and Riverside Counties and their shares of overall regional transportation revenues. Figure 4.9 shows the breakdown of revenues by county.

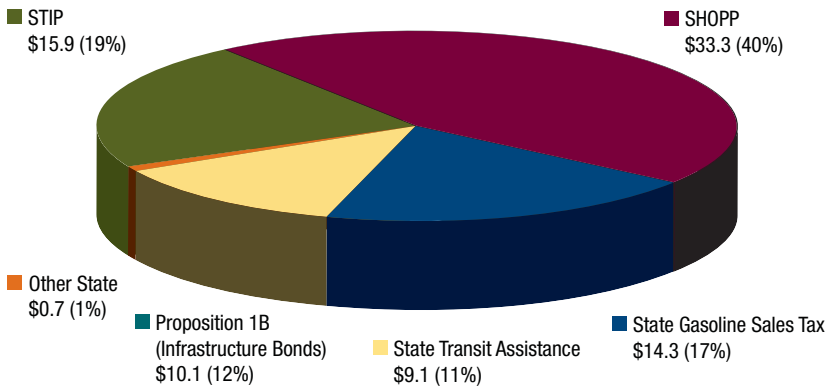
FIGURE 4.9 SCAG REGIONAL REVENUES BY COUNTY (IN NOMINAL DOLLARS) $411.4 BILLION TOTAL



Source: SCAG Revenue Model 2007

State sources generate a larger share of revenues than in the 2004 RTP, mostly due to the infrastructure bonds (Proposition 1B) and state gasoline sales tax protection (Proposition 1A). The infrastructure bonds and state gasoline sales taxes make up roughly 30 percent of the total $83.4 billion in forecasted state revenues (see Figure 4.10).

FIGURE 4.10 SCAG REGIONAL REVENUES, STATE SOURCES (IN NOMINAL DOLLARS) $83.4 BILLION TOTAL

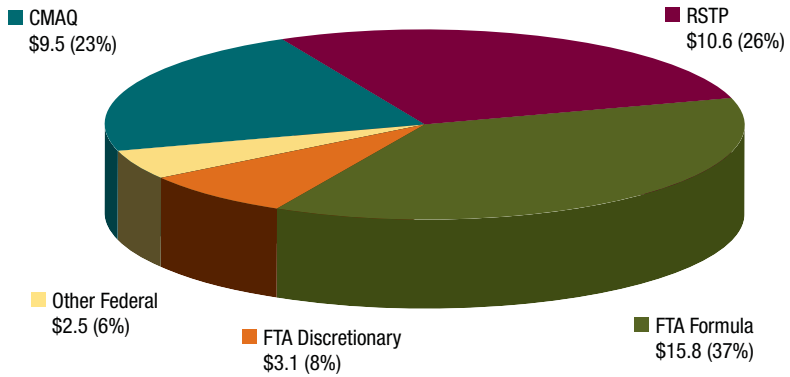


Source: SCAG Revenue Model 2007

Note: Numbers may not add due to rounding.

As shown in Figure 4.11, federal sources are anticipated to remain steady and represent a small portion of overall transportation funds ($41.6 billion). One of the largest declines in federal funding will be due to the region achieving attainment for a number of pollutants by 2020. This will result in less CMAQ funding.

FIGURE 4.11 SCAG REGIONAL REVENUES, FEDERAL SOURCES (IN NOMINAL DOLLARS) $41.6 BILLION TOTAL



Note: Numbers may not add due to rounding.

Reasonably Available Revenues

There are several new funding sources that will increase the revenues available for the 2008 RTP. The region also expects to leverage innovative financing strategies.

Table 4.2 presents twelve categories of funding sources and financing techniques that were evaluated for the RTP. They were selected as a result of their use in other areas of the state, the burgeoning potential, historical precedence and likelihood of implementation within the time frame of the 2008 RTP. These funding sources are reasonably available and are included in the financially constrained plan. For each funding source, SCAG has examined the policy and legal context of implementation and has prepared an estimate of the revenue potential.



TABLE 4.2 NEW REVENUE SOURCES AND INNOVATIVE FINANCING STRATEGIES (IN NOMINAL DOLLARS, BILLIONS)

Revenue Source	Description	Amount	Actions to Ensure Availability	Responsible Party
Value Capture Strategies	Various techniques assumed: formation of special districts, including Benefit Assessment Districts, Mello-Roos Community Facility Districts, as well as tax increment financing and joint development to provide gap financing for specific transit investments (Gold Line extension, Purple Line extension, and the HSRT system). SCAG also assumes one-time proceeds from the sale of Caltrans-owned property within the SR-710 tunnel vicinity.	$3.7	Pursue necessary approvals for special districts by 2012 (Benefit Assessment Districts require majority approval by property owners; Mello-Roos tax requires two-thirds approval); work with private entities for joint development opportunities; also, work with Caltrans to utilize proceeds from real estate sales to partially fill funding gap for the SR-710 tunnel; pursue legislation to enable sales and to establish escrow account for the proceeds	MPO, transit operators, local jurisdictions, property owners along project corridors, developers, Caltrans
Local Option Sales Tax Extension	Half-cent sales tax measure extension for Imperial County—existing Measure D expires in 2010	$0.8	Local sales tax measure to be placed on ballot by 2010	Imperial County
Highway Tolls (includes toll revenue bond proceeds)	Toll revenues generated from the SR-710 tunnel, I-710 dedicated truck lanes, High Desert Corridor, and CETAP Corridor	$22.0	Region was granted authority under AB 1467 (2006) to impose tolls and work with private entities for the financing of goods movement related facilities including the I-710 dedicated truck lanes; additional state legislative approval needed for the SR-710 tunnel	MPO, local county transportation commissions (LACMTA, SANBAG, RCTC), State Legislature
State and Federal Gas Excise Tax Adjustment to Maintain Historical Purchasing Power	Estimate equivalent to additional ten cent per gallon gasoline tax imposed by the state and federal government starting in 2012—extrapolation of historical trend	$17.0	Congressional and state legislative approval	MPO, State Legislature, Congress
Container Fees (includes container fee bond proceeds)	Charge imposed on containerized cargo moving through the Ports of LA/LB (includes railroad user-fees for rail capacity improvement program); fees are directly linked to specific goods movement projects	$41.5	Negotiated by ports, shipping community, regional stakeholders or state legislative approval (upon passage of SB 974 or other legislative effort)	Ports, shippers, goods movement stakeholders (MPO, railroads, local county transportation commissions), State Legislature
Private Equity Participation	Public Private Partnership arrangement whereby a private entity designs, finances, builds, operates, and maintains a facility under a lease arrangement for a fixed period of time	$4.4	Region was granted authority under AB 1467 (2006) to work with private entities for the financing of freight-related projects; additional state legislative approval needed for the SR-710 tunnel	MPO, local county transportation commissions, private consortium, State Legislature

Revenue Source	Description	Amount	Actions to Ensure Availability	Responsible Party
Private Activity Bonds (PAB)	Interest savings from the issuance of tax-exempt private activity bonds	$0.4 (included in container fees)	Work with railroads and other regional stakeholders to receive federal PAB allocation	MPO, freight railroads, local county transportation commissions, US DOT
U.S. Environmental Protection Agency (EPA) funding for clean freight rail technology	EPA subsidies to help mitigate locomotive emissions per the 2007 State Implementation Plan (SIP)	$1.9	Work with railroads, AQMD, ARB and US EPA for federal clean technology funding allocation	MPO, freight railroads, AQMD, ARB, US EPA
Interest Earnings	Interest earnings from toll bond proceeds (High Desert Corridor, CETAP, SR-710 tunnel, and I-710 truck lanes)	$0.4	See Highway Tolls	See Highway Tolls
Riverside County Measure A (Bond Anticipation Notes)	Short-term debt to help fund the CETAP Corridor in anticipation of the sale of Measure A revenue bonds	$1.5	Issuance of debt subject to RCTC Board policy	RCTC
Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan	The TIFIA loan program provides credit assistance for transportation investments of national/regional significance; TIFIA loan assumed for the CETAP Corridor	$0.9	Work with US DOT and RCTC to evaluate applicability of the TIFIA loan program for the CETAP Corridor; further feasibility work necessary to assess traffic and revenue potential on CETAP Corridor	MPO, RCTC, US DOT TIFIA Office
HSRT Passenger System (Private Contribution & User Fee)	User fee-supported initiative for HSRT system. Assumes private-sector development: design, finance, build, operate and maintain. See HSRT Report for further details	$26.2	For the IOS: form JPA, finalize development of a comprehensive business plan; work with private entity to ensure commitment	MPO, private consortium, local/regional stakeholders

Summary of Revenue Sources and Expenditures

TABLE 4.3.1 CORE AND REASONABLY AVAILABLE REVENUE PROJECTIONS (IN NOMINAL DOLLARS, BILLIONS)

Revenue Source	Revenue Projection Assumptions	Revenue Estimate
LOCAL REVENUE SOURCES		
Local Option Sales Tax Measures	**Description:** Locally imposed ½ percent sales taxes in four counties (Imperial, Orange, Riverside, and San Bernardino). Permanent 1 percent (combination of two ½ cent sales taxes) in Los Angeles. **Assumptions:** Sales taxes grow consistent with county transportation commission forecasts and historical trends.	$145.6
Transportation Development Act (TDA) – Local Transportation Fund	**Description:** Local Transportation Funds (LTF) are derived from a ¼ cent sales tax on retail sales statewide. Funds are returned to the county of generation and used mostly for transit operations and transit capital expenses. **Assumptions:** Same sales tax growth rate as used for local option sales tax measures	$52.7
Gas Excise Tax Subventions (to Cities and Counties)	**Description:** Subventions to counties and local jurisdictions in region from the California state gas tax. Revenues for the forecast are proportionate to the percentage of streets and roads that are regionally significant. **Assumptions:** Fuel consumption does not grow except in Los Angeles and Orange counties where growth is less than historical trends and consistent with forecasts by local transportation commissions. Regionally significant streets and roads (37 to 50 percent of roads) are classified as either arterials or collectors.	$8.0
Transit Farebox Revenue	**Description:** Transit fares collected by transit operators in the SCAG region. **Assumptions:** Farebox revenues increase consistent with historic trends, planned system expansions, and operator forecasts.	$41.2
Highway Tolls (in core revenue forecast)	**Description:** Revenues generated from toll roads operated by the Transportation Corridor Agencies (TCA). **Assumptions:** Traffic does not grow (compared to historical growth of about 3.8 percent) in core revenue forecast scenario.	$3.0
Mitigation Fees	**Description:** Revenues generated from development impact fees. The revenue forecast includes fees from the Transportation Corridor Agency (TCA) development impact fee program; the Riverside County's Transportation Uniform Mitigation Fee (TUMF) for both the Coachella Valley and Western Riverside County; and the San Bernardino County's Development Impact Fee (DIF) program. **Assumptions:** The financial forecast is consistent with revenue forecasts from Riverside County Transportation Commission (RCTC), and San Bernardino Associated Governments (SANBAG).	$15.9
Local Agency Funds	**Description:** Includes committed local revenue sources, such as transit advertising and auxiliary revenues, lease revenues, and interest and investment earnings from reserve funds. **Assumptions:** Revenues are based on financial data from transit operators and local county transportation commissions.	$20.0
LOCAL SUBTOTAL		**$286.5**

Note: Numbers may not add due to rounding

TABLE 4.3.2 CORE AND REASONABLY AVAILABLE REVENUE PROJECTIONS (IN NOMINAL DOLLARS, BILLIONS)

Revenue Source	Revenue Projection Assumptions	Revenue Estimate
STATE REVENUE SOURCES		
State Transportation Improvement Program (STIP)	**Description:** The STIP is a five-year capital improvement program that provides funding from the State Highway Account (SHA) for projects that increase the capacity of the transportation system. The SHA is funded through a combination of state gas excise tax, the Federal Highway Trust Fund, and truck weight fees. The STIP may include projects on state highways, local roads, intercity rail, or public transit systems. The Regional Transportation Planning Agencies (RTPAs) propose 75 percent of STIP funding for regional transportation projects in Regional Transportation Improvement Programs (RTIPs). Caltrans proposes 25 percent of STIP funding for interregional transportation projects in the Interregional Transportation Improvement Program (ITIP). **Assumptions:** Funds are based upon the 2006 STIP program of projects. Long-term forecasts assume no growth in fuel consumption..	$15.9
State Highway Operation and Protection Plan (SHOPP)	**Description:** Funds state highway maintenance and operations projects. **Assumptions:** Short-term revenues are based on overlapping 2004, 2006 and 2008 SHOPP programs. Long-term forecasts are consistent with STIP forecasts and assume no growth in the fuel consumption.	$33.3
State Gasoline Sales Tax	**Description:** The state gasoline sales tax funds discretionary projects through the former Traffic Congestion Relief Program (TCRP). Proposition 42, recently restored by Proposition 1A, transfers future revenues to the Transportation Investment Fund, which distributes revenues to the STIP, local streets and roads, and transit. **Assumptions:** The financial forecast assumes that each county receives its fair share of state gasoline sales tax based upon county population. Future revenues are not expected to grow, with the exception of Orange County, which is expected to grow by a modest one percent.	$14.3
State Transit Assistance Fund (STA)	**Description:** STA is funded with 50 percent of State Public Transit Account (PTA) revenues, which come from diesel sales tax and "spillover" in the gasoline sales tax. Funding is distributed 50 percent by population share and 50 percent by revenue share of the transit operators. **Assumptions:** The forecast is based on current funding levels reported by the State Controller., except in Los Angeles and Orange counties, where growth is less than historical trends and consistent with forecasts by local transportation commissions.	$9.1
Highway Safety, Traffic, Air Quality, and Port Security Bond Act of 2006 (Proposition 1B)	**Description:** Proposition 1B authorizes $19.9 billion to be spent statewide over the next several years on existing and new statewide transportation-related infrastructure programs and projects. Several programs are included under Proposition 1B. The California Transportation Commission has not yet established priorities and funding formulas for all categories. **Assumptions:** The forecast assumes that the SCAG region receives its fair share of funding under the categories with established funding formulas. Other categories are assumed to be allocated according to population.	$10.1
Other State Sources	**Description:** Other state sources include Service Authority for Freeways and Expressways (SAFE), Freeway Service Patrol, Air Quality Vehicle Registration Fee (AB 2766), Environmental Enhancement and Mitigation, and other miscellaneous state grants. The Clean Air and Transportation Improvement Act added Proposition 116 to use state general obligation bonds to finance rail infrastructure. **Assumptions:** The RTP uses forecasts provided by LACMTA for Los Angeles County for consistency with the LACMTA long-range transportation plan. These revenues are not estimated for other counties.	$0.7
STATE SUBTOTAL (State STIP funds include FHWA IM and NHS funding categories)		**$83.4**

TABLE 4.3.3 CORE AND REASONABLY AVAILABLE REVENUE PROJECTIONS (IN NOMINAL DOLLARS, BILLIONS)

Revenue Source	Revenue Projection Assumptions	Revenue Estimate
FEDERAL REVENUE SOURCES		
FHWA Non-Discretionary Congestion Mitigation and Air Quality (CMAQ) Program	**Description:** Program to reduce traffic congestion and improve air quality in non-attainment areas. **Assumptions:** Short-term revenues are based upon the Caltrans apportionment estimates. Long-term revenues assume that the Federal Highway Trust Fund stays solvent, but revenues do not grow. CMAQ funding is assumed to be halved starting in 2020 due to improved air quality.	$9.5
FHWA Non-Discretionary Regional Surface Transportation Program (RSTP)	**Description:** Projects eligible for RSTP funds include rehabilitation and new construction on any highways included in the National Highway System (NHS) and Interstate Highways (including bridges). Also, transit capital projects, as well as intracity and intercity bus terminals and facilities, are eligible. **Assumptions:** Short-term revenues are based upon the Caltrans apportionment estimates. Long-term revenues assume that the Federal Highway Trust Fund stays solvent, but revenues do not grow.	$10.6
FTA Formula Programs 5307 Urbanized Area Formula (Capital), 5310 Elderly and Persons with Disabilities Formula, 5311 Non-Urbanized Area Formula, 5309 Fixed Guideway Program	**Description:** This includes a number of FTA programs that are distributed by formula. 5307 is distributed annually to state urbanized areas with a formula based on population, population density and transit revenue miles of service. Program funds capital projects (and operations expenses in areas under 200,000 in population), preventative maintenance and planning activities. 5310 funds are allocated by formula to states for capital costs of providing services to the elderly and disabled. The 5311 program provides capital and operating expenses for rural and small urban public transportation systems. Section 5309 Fixed Guideway (FG) funds are also distributed to regions on an urbanized area formula. **Assumptions:** Formula funds are assumed to increase in proportion with the Federal Highway Trust Fund. As with the FHWA sources, the Trust Fund is expected to stay solvent, but not grow. For Los Angeles and Orange Counties, the local transportation commissions have estimated formula allocations based on future increases in service and past allocations that yield results consistent with a no-growth assumption.	$15.8
FTA Non-Formula Program 5309 New and Small Starts, 5309 Bus & Bus-Related Grants	**Description:** Capital projects include preliminary engineering, acquisition of real property, final design and construction, initial acquisition of rolling stock for new fixed guideway systems or extensions, including bus rapid transit, light rail, heavy rail, and commuter rail systems. Capital investment grants of less than $75 million are considered “small starts.” “Small starts” will have a separate funding category beginning in FY07. Program funds bus acquisition and other rolling stock, ancillary equipment and the construction of bus facilities. Also includes bus rehabilitation and leasing, park-and-ride facilities, parking lots associated with transit facilities and bus passenger shelters. **Assumptions:** Operators are assumed to receive FTA discretionary funds in rough proportion to what they have received historically. The Federal Highway Trust Fund is expected to stay solvent, but not grow. For Los Angeles and Orange counties, the local transportation commissions have estimated discretionary allocations based on future increases in service and past allocations. Los Angeles expects discretionary allocations to remain constant in nominal terms, while Orange County expects discretionary allocations to grow slower than inflation.	$3.1
Other Federal Funds	**Description:** Includes other federal programs, such as Regional Transportation Enhancements, Highway Bridge Replacement and Rehabilitation, Homeland Security Grants, Bus Preferential Signal Systems, Highway Earmarks, Hazard Elimination Safety, and Railroad/Highway Grade Crossing Protection (Section 130). **Assumptions:** LACMTA provided forecasted revenues for these programs, which have been adopted in the RTP for Los Angeles County. For other counties, Highway Bridge Program revenues are estimated in the short term using program allocations provided by the California Department of Transportation through FY2010. Longer-term estimates are based upon the no-growth assumption used for other federal funding sources.	$2.5
FEDERAL SUBTOTAL		**$41.6**

Note: Numbers may not add due to rounding

TABLE 4.3.4 CORE AND REASONABLY AVAILABLE REVENUE PROJECTIONS (IN NOMINAL DOLLARS, BILLIONS)

Revenue Source	Revenue Projection Assumptions	Revenue Estimate
INNOVATIVE FINANCING & NEW REVENUE SOURCES		
Value Capture Strategies	**Description:** This strategy refers to capturing the incremental value generated by transportation investments through formation of special districts, joint development, and tax increment financing. Also includes sale of Caltrans-owned property. **Assumptions:** SCAG assumes the formation of special districts, including Benefit Assessment Districts, Mello-Roos Community Facilities Districts, as well as use of tax increment financing and joint development to provide gap financing for specific transit investments: Gold Line extension, Purple Line extension, and passenger HSRT system. SCAG also assumes one-time proceeds from the sale of Caltrans-owned property within the SR-710 tunnel vicinity.	$3.7
Local Option Sales Tax Extension	**Description:** Locally imposed ½ percent sales tax measure extension for Imperial County—existing Measure D expires in 2010. **Assumptions:** Sales tax grows consistent with historical trends in county retail sales.	$0.8
Highway Tolls	**Description:** Toll revenues generated from SR-710 tunnel. Also, tolls assumed for the I-710 dedicated truck lanes, High Desert Corridor, and CETAP Corridor as well as SR-91. **Assumptions:** Toll revenues based on recent feasibility studies for applicable corridors. Also includes toll revenue bond proceeds.	$22.0
State and Federal Gas Excise Tax Adjustment to Maintain Historical Purchasing Power	**Description:** Equivalent to additional ten cent per gallon gasoline tax imposed by the state and federal government starting in 2012 - based on historical extrapolation. **Assumptions:** Forecast consistent with historical adjustments for both state and federal gas taxes.	$17.0
Container Fees	**Description:** Charge imposed on containerized cargo moving through the Ports of LA/LB and region (includes railroad user fees for rail capacity improvement program) and directly linked to specific goods movement projects. **Assumptions:** Container fees at $30 per Twenty-foot Equivalent Unit (TEU). Revenue total also includes railroad user fees assessed on a TEU basis for the rail capacity improvement program; revenue total includes bond proceeds.	$41.5
Private Equity Participation	**Description:** Public Private Partnership arrangement whereby a private entity designs, finances, builds, operates, and maintains a facility under a lease arrangement for a fixed period of time. **Assumptions:** Private capital is assumed for the financing of a number of projects including the SR-710 tunnel, CETAP Corridor and the HSRT system (freight only component assumed in this total). See separate line-item for passenger HSRT.	$4.4
Private Activity Bonds	**Description:** Title XI Section 11142 of SAFETEA-LU amends Section 142(a) of the IRS Code to allow the issuance of tax exempt private activity bonds for highway and freight transfer facilities. States and local governments are allowed to issue tax-exempt bonds to finance highway and freight transfer facility projects sponsored by the private sector. **Assumptions:** Partial interest savings from the issuance of tax-exempt private activity bonds for freight rail investment package are assumed to offset some of the grade separation costs.	$0.4 (included in container fees)
Federal (EPA) funding for clean freight rail technology	**Description:** Federal funding to mitigate locomotive emissions. **Assumptions:** In accordance with the proposed 2007 State Implementation Plan (SIP), it is assumed that the federal government (US EPA) will provide subsidies to mitigate locomotive emissions; the severity of the region's PM2.5 problem and the attainment deadline make it necessary to mitigate locomotive emissions	$1.9
Interest Earnings	**Description:** Interest earnings from toll bond proceeds. **Assumptions:** Interest earnings are assumed from toll bond proceeds (High Desert Corridor, CETAP, SR-710 tunnel, and I-710 truck lanes.	$0.4

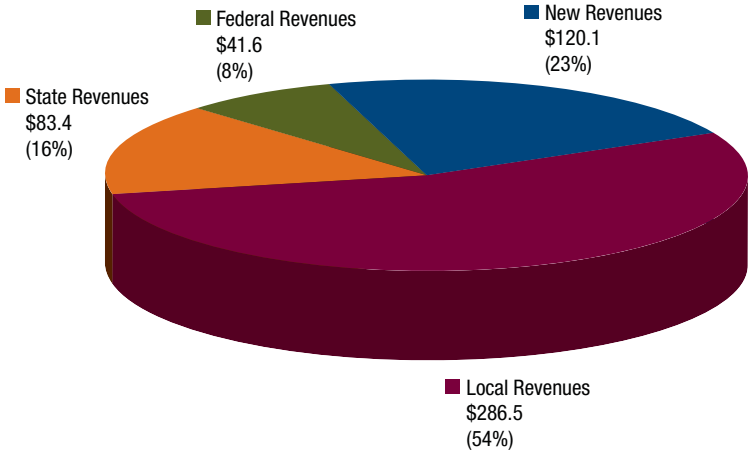
Revenue Source	Revenue Projection Assumptions	Revenue Estimate
Riverside County Measure A (Bond Anticipation Notes)	**Description:** BANs are short-term debt financing strategies often used by local governments. The proceeds of a future issue are expected to cover anticipation notes. **Assumptions:** Short-term debt is assumed in the latter years of the RTP to help fund the CETAP Corridor in anticipation of the sale of Measure A revenue bonds.	$1.5
TIFIA Loan	**Description:** TIFIA loan program provides credit assistance under flexible terms for transportation investments of national or regional significance. **Assumptions:** A TIFIA loan is assumed to facilitate financing of the CETAP Corridor; a direct loan is assumed to be repaid by project generated toll revenue.	$0.9
HSRT Passenger System (Private Contribution & User Fee	**Description:** User-fee supported initiative for HSRT system. **Assumptions:** Assumes private sector development including design, finance, build, operate, and maintain. See HSRT report for further details.	$26.2
NEW REVENUE SOURCE SUBTOTAL		**$120.1**
GRAND TOTAL		**$531.5**

Note: Numbers may not add due to rounding



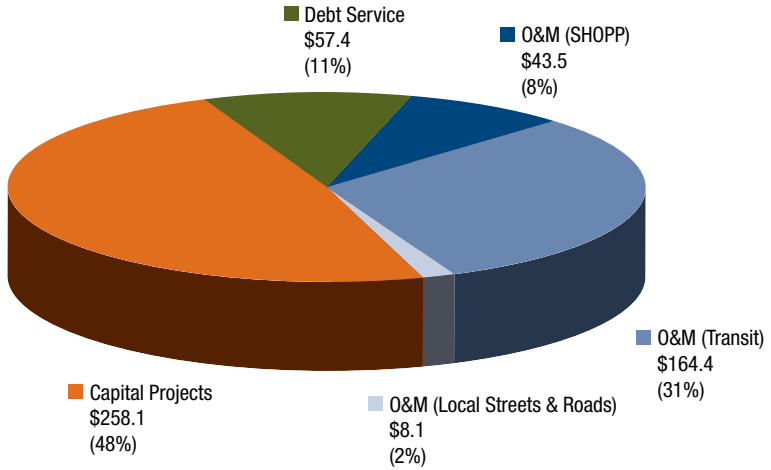
The SCAG region's financially constrained RTP includes revenues from both the core and reasonably available revenue sources. A summary of these forecasted revenues and expenditures is presented in Figures 4.12 and 4.13. As shown in these figures, the SCAG region's budget over the next 30 years totals an estimated $531.5 billion.

FIGURE 4.12 2008 RTP REVENUE SUMMARY
$531.5 BILLION (IN NOMINAL DOLLARS) FY2007-FY2036



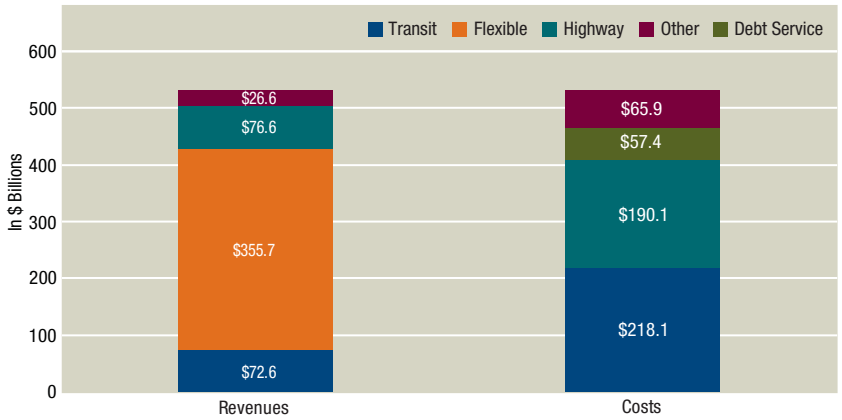
Note: Numbers may not add due to rounding.

FIGURE 4.13 2008 RTP EXPENDITURE SUMMARY
$531.5 BILLION (IN NOMINAL DOLLARS) FY2007-2036



As shown in Figure 4.14, transit and highway expenditures are roughly comparable at 41 and 36 percent, respectively, of the RTP costs for each category. About 12 percent of costs are attributable to an "other" category, reflecting proposed investments in HSRT systems as well as freight rail capacity and grade separation improvements. Consistent with historical practice, agencies in the region are expected to bond against future revenues to provide additional funding in the early years of the plan. As a result, debt service equal to historical payments and future bonding needs has been included as part of the RTP. Anticipated debt service payments make up 11 percent of total costs.

FIGURE 4.14 REVENUES COMPARED TO COSTS BY MODE



Note: Numbers may not add due to rounding

The following Table 4.4 provides details of the SCAG region's 2008 revenue forecast by source in five-year increments. This is followed by Table 4.5, which provides details of the region's expenditures by category in five-year increments.



TABLE 4.4 2008 REGIONAL TRANSPORTATION PLAN REVENUES (IN NOMINAL DOLLARS, BILLIONS)

	REVENUE SOURCES	FY2007-11	FY2012-16	FY2017-21	FY2022-26	FY2027-31	FY2032-36	TOTAL
LOCAL	Sales Tax	$14.3	$19.4	$26.0	$34.1	$44.8	$59.7	$198.3
	– County	10.7	14.4	19.3	25.1	32.8	43.3	145.6
	– Transportation Development Act	3.6	5.0	6.7	9.0	12.0	16.4	52.7
	Gas Tax (Subvention to Cities & Counties)	1.1	1.2	1.3	1.4	1.5	1.6	8.0
	Other Local Funds	2.5	4.5	3.2	4.6	3.5	1.6	20.0
	Transit Fares	3.1	4.5	5.7	7.3	9.3	11.3	41.2
	Tolls	0.3	0.4	0.4	0.5	0.6	0.8	3.0
	Mitigation Fees	1.3	1.7	2.3	2.3	3.4	5.0	15.9
	LOCAL TOTAL	$22.6	$31.7	$39.0	$50.3	$63.0	$79.8	$286.5
STATE	State Highway Operations and Protection Program (SHOPP)	5.3	5.3	5.7	5.7	5.7	5.7	33.3
	State Transportation Improvement Program (STIP)	2.9	2.2	2.4	2.5	2.7	3.1	15.9
	– Regional - RTIP	2.2	1.7	1.8	1.9	2.1	2.3	11.9
	– Interregional - ITIP	0.7	0.6	0.6	0.6	0.7	0.8	4.0
	Traffic Congestion Relief Program, Propositions 42 and 1A	2.0	1.8	2.0	2.3	2.8	3.4	14.3
	State Transit Assistance (STA)	0.8	1.0	1.3	1.6	2.0	2.4	9.1
	Proposition 1B	7.2	2.9	0.0	0.0	0.0	0.0	10.1
	Other (1)	0.1	0.1	0.1	0.1	0.1	0.2	0.7
	STATE TOTAL	$18.3	$13.3	$11.4	$12.2	$13.3	$14.7	$83.4
FEDERAL	Federal Transit	$2.9	$2.5	$2.9	$3.2	$3.3	$4.2	$19.0
	– Federal Transit Formula	1.9	2.0	2.3	2.7	3.1	3.8	15.8
	– Federal Transit Non-Formula	1.0	0.4	0.6	0.5	0.2	0.5	3.1
	Federal Highway & Other	$3.0	$3.1	$3.6	$3.5	$4.2	$5.1	$22.6
	– Congestion Mitigation and Air Quality	1.3	1.6	1.8	1.3	1.6	1.9	9.5
	– Surface Transportation Program (Regional)	1.1	1.3	1.5	1.9	2.2	2.7	10.6
	– Other (2)	0.7	0.2	0.3	0.3	0.4	0.6	2.5
	FEDERAL TOTAL	$5.9	$5.6	$6.5	$6.7	$7.5	$9.3	$41.6
INNOVATIVE FINANCING & NEW REVENUE SOURCES	Private Equity Participation	1.1	1.5	1.8	0.0	0.0	0.0	4.4
	TIFIA Loans	0.0	0.0	0.0	0.0	0.0	0.9	0.9
	Value Capture Strategies	1.0	1.4	1.4	0.0	0.0	0.0	3.7
	Highway Tolls (including bond proceeds)	0.1	2.3	4.8	3.1	3.8	7.8	22.0
	Port Container Fee (including railroad fee and bond proceeds)	4.0	9.4	7.8	6.3	6.3	7.7	41.5
	Riverside Co. Measure A - BANs	0.0	0.0	0.0	0.0	0.0	1.5	1.5
	Federal EPA Funding for clean freight rail technology	0.0	0.8	1.1	0.0	0.0	0.0	1.9
	Interest Earnings	0.0	0.3	0.1	0.0	0.0	0.0	0.4
	HSRT passenger user fee & private contribution	8.7	8.7	8.7	0.0	0.0	0.0	26.2
	Private Activity Bonds (included in container fee estimate)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	State and Federal Gas Excise Tax Adjustment	0.0	3.4	3.4	3.4	3.4	3.4	17.0
	Local Option Sales Tax Extension (Imperial County)	0.0	0.1	0.1	0.1	0.2	0.3	0.8
	Innovative Financing Total	$14.9	$27.9	$29.2	$13.0	$13.7	$21.5	$120.1
	REVENUE TOTAL	$61.7	$78.6	$86.1	$82.2	$97.5	$125.4	$531.5

Notes:

(1) Service Authority for Freeways and Expressways (SAFE), Freeway Service Patrol, Air Quality Vehicle Registration Fee (AB 2766), Environmental Enhancement and Mitigation.

(2) Includes other federal programs, such as Regional Transportation Enhancements, Highway Bridge Replacement and Rehabilitation, Homeland Security Grants, Bus Preferential Signal Systems, Highway Earmarks, local assistance, Hazard Elimination Safety, and Railroad/Highway Grade Crossing Protection (Section 130).

Numbers may not add due to rounding.

TABLE 4.5 2008 REGIONAL TRANSPORTATION PLAN EXPENDITURES (IN NOMINAL DOLLARS, BILLIONS)

RTP COSTS	FY2007-11	FY2012-16	FY2017-21	FY2022-26	FY2027-31	FY2032-36	TOTAL
Capital Projects:	**$42.5**	**$51.6**	**$52.5**	**$32.2**	**$38.4**	**$41.0**	**$258.1**
Arterials	3.9	3.8	3.3	3.6	3.7	6.5	24.8
Grade Separation	2.6	4.5	0.2	0.1	0.7	2.1	10.2
HOV	2.3	2.2	3.3	1.3	1.5	0.9	11.5
Mixed Flow	6.7	8.0	8.0	7.8	11.1	2.7	44.3
Toll Facilities	1.5	7.5	13.7	4.8	2.8	8.5	38.7
ITS	0.4	0.3	0.4	0.6	1.2	0.1	3.0
Transit	9.6	8.8	8.1	8.6	11.1	8.2	54.5
High Speed Regional Transport - Passenger	9.7	9.7	9.7	0.0	0.0	0.0	29.1
High Speed Regional Transport - Freight	2.0	2.3	2.4	3.2	3.6	4.4	17.9
Other (1)	4.0	4.4	3.4	2.1	2.7	7.5	24.1
Operations and Maintenance:	**$19.7**	**$24.8**	**$30.7**	**$37.5**	**$46.0**	**$57.2**	**$216.0**
Highway	5.5	6.4	7.3	7.6	8.1	8.5	43.5
Transit	13.1	17.2	22.1	28.5	36.5	47.1	164.4
Local Streets and Roads	1.2	1.2	1.3	1.4	1.5	1.6	8.1
Debt Service	**$2.7**	**$5.3**	**$8.4**	**$10.8**	**$12.6**	**$17.6**	**$57.4**
COST TOTAL	**$65.0**	**$81.7**	**$91.5**	**$80.5**	**$97.1**	**$115.7**	**$531.5**

Note:: (1) Includes: Rail Capacity Expansion, Truck Climbing, Non-Motorized, TDM and contingencies.
Numbers may not add due to rounding.

V. PLAN PERFORMANCE



This chapter summarizes how well the 2008 RTP performs in meeting its adopted goals and satisfying state and federal requirements. Table 5.1 summarizes goals and their related performance outcomes. One or more performance measures were developed for each of these outcomes to quantify the Plan's performance. These goals and outcomes were used successfully to develop the update to the 2004 RTP.

TABLE 5.1 2008 RTP GOALS AND RELATED PERFORMANCE OUTCOMES

RTP Goals	Mobility	Accessibility	Reliability	Productivity	Safety	Sustainability	Preservation	Cost-Effectiveness	Environmental	Environmental Justice
Maximize mobility and accessibility for all people and goods in the region	✓	✓						✓		✓
Ensure travel safety and reliability for all people and goods in the region	✓		✓		✓					
Preserve and ensure a sustainable regional transportation system						✓	✓			
Maximize the productivity of our transportation system	✓			✓						
Protect the environment, improve air quality and promote energy efficiency									✓	✓
Encourage land use and growth patterns that complement our transportation investments	✓	✓							✓	
Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies*										

* SCAG does not yet have an agreed-upon security performance measure; therefore it is not included in this table.

PLAN INVESTMENT PERFORMANCE

This section provides detailed information on each of the performance outcomes and related measures approved by the Regional Council in 2002. The basic concept for each criterion is to compare the performance of the Plan (2035) to both the Base Year (2003) and the Baseline scenario for 2035. The Plan is the selected strategy to guide the region's transportation planning over the next few decades. The Baseline represents "business as usual" and a future condition in which the Plan is not implemented. It assumes only the completion of projects currently under construction or right-of-way acquisition, projects that have completed the National Environmental Policy Act (NEPA) process, or projects that come from the first year of the previous RTP/RTIP. The data for the analysis is based on the SCAG Regional travel demand model results.

MOBILITY

The mobility performance outcome relies on two commonly used measures: speed and delay. Speed and delay were computed using SCAG's regional travel demand model. They are defined as follows:

- Speed is the average speed experienced by travelers regardless of mode in miles per hour (mph).
- Delay is the difference between the actual travel time and travel time that would be experienced if a person traveled at the legal speed limit. This measure is reported as person-hours of delay, which is presented here as a total delay and as delay per capita. The latter measure balances the results with the expected population growth during the Plan period (i.e., through 2035).

Figure 5.1 compares the speeds of the three scenarios. It shows that the Plan improves average daily speeds by eight percent compared to the 2035 Baseline and represents a less than 4-mile-per-hour decline over 2003 Base Year results.

FIGURE 5.1 AVERAGE DAILY SPEED

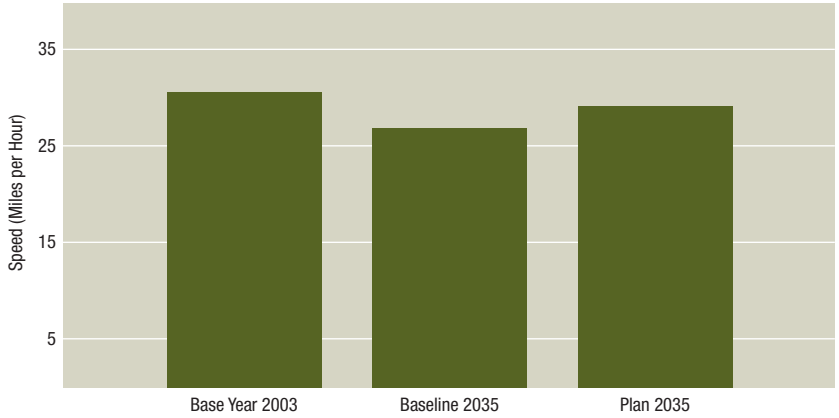


FIGURE 5.2 DAILY PERSON-HOURS OF DELAY

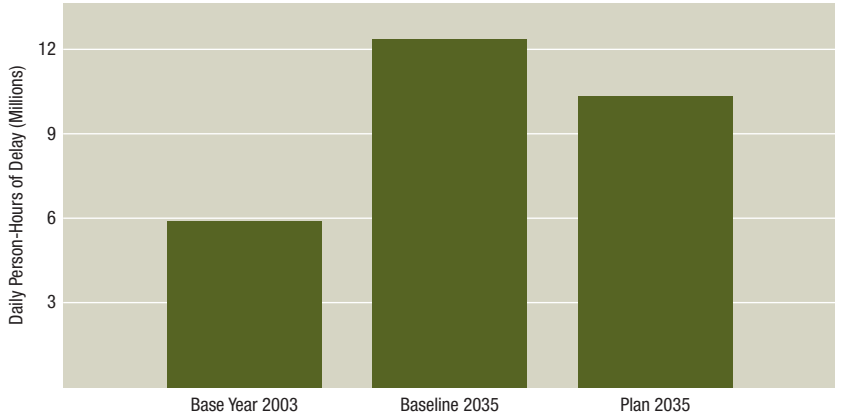


Figure 5.2 compares delay results and shows that the Plan reduces total daily person-hours of delay by 16 percent compared to the Baseline, but also represents an increase of 76 percent over Base Year conditions. This increase reflects the growth in the region and the resulting incremental travel.

Figure 5.3 compares average daily delay per capita, which is a measure that takes into account that there will be more people traveling on the Region's transportation system by 2035. The results tell a different story. Whereas total person delay for the Plan increases by 76 percent over Base Year conditions, each person in the region experiences only a 29 percent increase - less than six minutes per day on a per-capita basis.

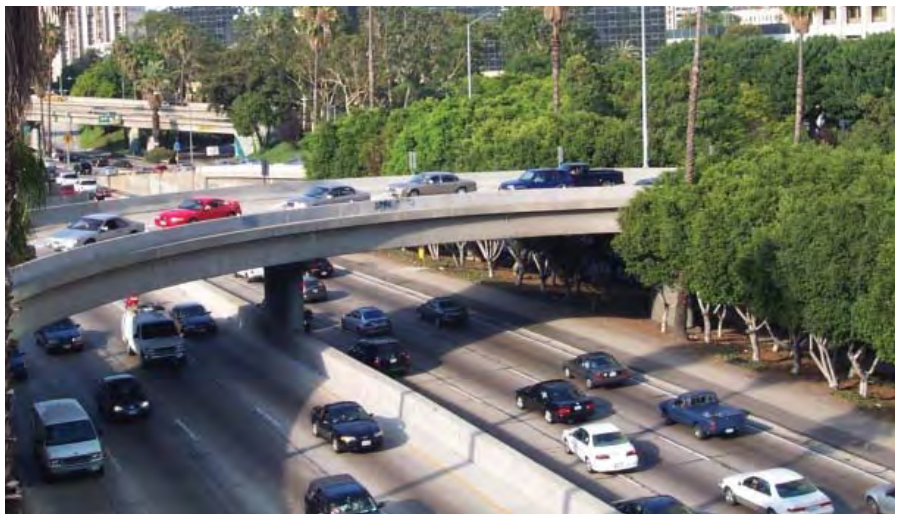




FIGURE 5.3 AVERAGE DAILY DELAY PER CAPITA

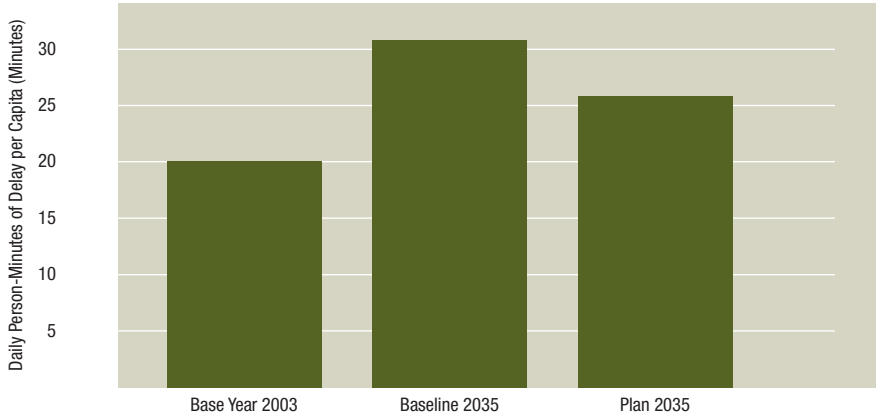
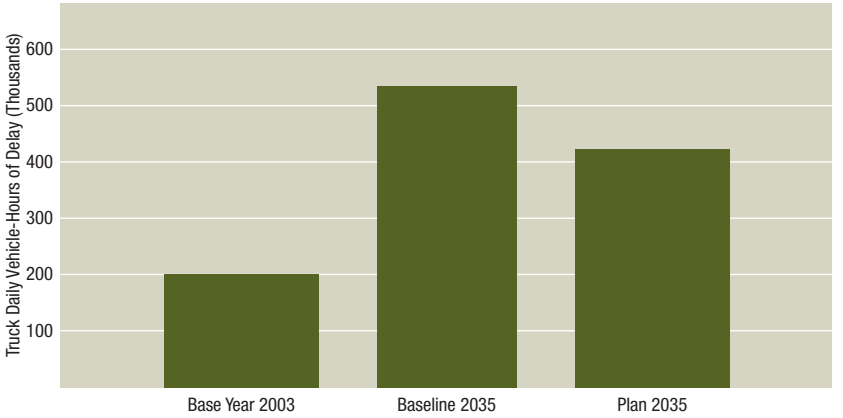


FIGURE 5.4 AVERAGE DAILY HEAVY-DUTY TRUCK DELAY



Finally, Figure 5.4 compares average daily Heavy Duty Truck delays, which shows an improvement of nearly 21 percent compared to the Baseline. This is an important statistic given the Plan's emphasis on the logistics industry and its importance to the regional economy.



Exhibits 5.1, 5.2, and 5.3 depict regional PM peak (3 p.m. to 7 p.m.) freeway speeds for Base Year 2003, Baseline in 2035, and Plan in 2035, respectively.

ACCESSIBILITY

Accessibility measures how well the transportation system provides people access to opportunities. Opportunities can include jobs, education, medical care, recreation, shopping, or other activities that help improve people's lives. For the 2008 RTP, accessibility is defined as the percentage of the population who can travel between work and home within 45 minutes during the peak period. Access to employment is used as a reasonable proxy for access to all opportunities, since work trips make up a large percentage of total trips during commute periods. For people traveling by automobiles, this is defined as those who travel during the afternoon commute period, and for transit users, both the AM and PM commute periods are included to facilitate the modeling of transit trips.

EXHIBIT 5.1 BASE YEAR 2003 FREEWAY SPEED I PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 5.2 BASELINE 2035 FREEWAY SPEED I PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

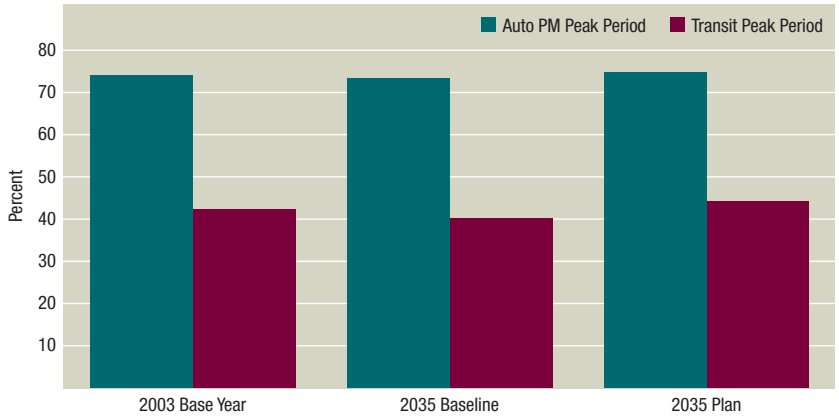
EXHIBIT 5.3 PLAN 2035 FREEWAY SPEED I PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

Figure 5.5 compares the Plan to Base Year and Baseline, and presents the percent of work trips completed within 45 minutes for both automobiles and transit. The figure shows that automobile accessibility stays relatively constant over the 2035 Baseline period at around 77 percent, but the Plan improves automobile accessibility slightly to 79 percent. Transit accessibility is projected to decline from 43 percent currently to around 42 percent under the 2035 Baseline scenario. However, it will improve to 45 percent under the Plan.

FIGURE 5.5 AUTO AND TRANSIT ACCESSIBILITY



RELIABILITY

The reliability outcome reflects the degree to which travelers experience variations in their trip times from day to day. As such, it captures the relative predictability of the public's travel time. Unlike mobility (which measures how quickly the transportation system is moving people) and accessibility (which addresses how well the system provides access to opportunities, primarily jobs), reliability focuses on how much mobility and accessibility vary from day to day.

The reliability measure is calculated by using the statistical concept of standard deviation. The indicator is computed by dividing the standard deviation of travel time for a given trip by the average travel time of that trip, measured over many days and weeks. Table 5.2 shows how a traveler can use this indicator depending on the importance of arriving on time. For example, if a person's morning commute takes on average 26 minutes, but varies 15 percent from day to day, then he or she must plan the trip to account for additional time. Table 5.2 also shows that if this person wants to be 99 percent confident that he or she arrives on time, he or she must plan for 38 minutes of travel instead of 26.

TABLE 5.2 VARIABILITY OF TRAVEL TIME: HYPOTHETICAL ILLUSTRATION

Trip	Time Period	Average Travel Time	Variability of Travel Time	Travel Time Based on Level of Confidence of Arriving on Time		
				70%	95%	99%
Hypothetical Commute Trip	AM Peak	26 min.	15%	30 min.	34 min.	38 min.
	PM Peak	32 min.	25%	40 min.	48 min.	56 min.
	Off Peak	20 min.	10%	22 min.	24 min.	26 min.

This indicator is relatively new in transportation planning and operations, and exact models to compute and forecast it are not available. However, by using existing travel time data and research results, it is possible to estimate the Plan's impact on reliability. Table 5.3 presents these results, which reflect the benefits derived from the investments that help respond more quickly and effectively to traffic accidents or provide traveler information. These improvements are conservatively projected in the 10 percent range. However, it is critical to continue to monitor this measure and improve the tools to forecast the impacts of such investments in future SCAG planning cycles.

TABLE 5.3 ESTIMATED IMPROVEMENTS IN TRAVEL TIME RELIABILITY

Peak Period	Hour	Base Year 2005 Average Percent Variability of Travel Time	Plan 2035 Average Percent Variability of Travel Time
Morning Peak Period (6 am to 9 am)	6 am to 7 am	16%	14%
	7 am to 8 am	22%	20%
	8 am to 9 am	23%	21%
Afternoon Peak Period (3 pm to 7 pm)	3 pm to 4 pm	25%	23%
	4 pm to 5 pm	26%	23%
	5 pm to 6 pm	28%	25%
	6 pm to 7 pm	25%	23%

Source: Caltrans

PRODUCTIVITY

The productivity outcome reflects the degree to which the transportation system performs during peak demand conditions. It is a system efficiency measure. The productivity indicator is defined as the percent utilization during peak demand conditions.

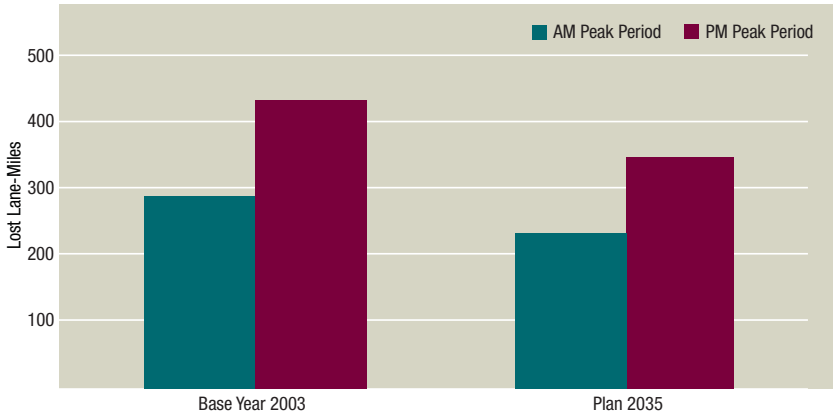
As an example, freeways are typically designed to carry 2,000 vehicles per lane per hour. However, in many locations on the region's freeway system, vehicles weaving and merging in and out of traffic cause bottlenecks, which lead to significant reductions in capacity utilization. Again, using freeways as an example, the carrying capacity of a freeway lane can drop by as much as 50 percent, allowing only 1,000 vehicles per hour to pass. In effect, the system "loses" capacity, which can be estimated in terms of lost lane-miles.



Figure 5.6 summarizes the current estimate for productivity losses on the region's freeway system and the expected improvements due to Plan investments. Maximizing the system's productivity is a critical goal of this RTP, and the overall system management approach aims to recapture lost productivity. The incremental investment of over $2 billion to implement advanced operational strategies on our freeways and arterials is projected to recapture 20 percent of the lost productivity. These projections are based on recent studies indicating that investments in ramp metering, arterial signal coordination, traveler information, and incident management can achieve such improvements.

The Plan improves productivity by committing to investments in state highway operations discussed in Chapter IV. Transit productivity will also improve through increased ridership, which maximizes the number of seats occupied during peak demand conditions.

FIGURE 5.6 HIGHWAY SYSTEM PRODUCTIVITY (LOST LANE-MILES)



SAFETY

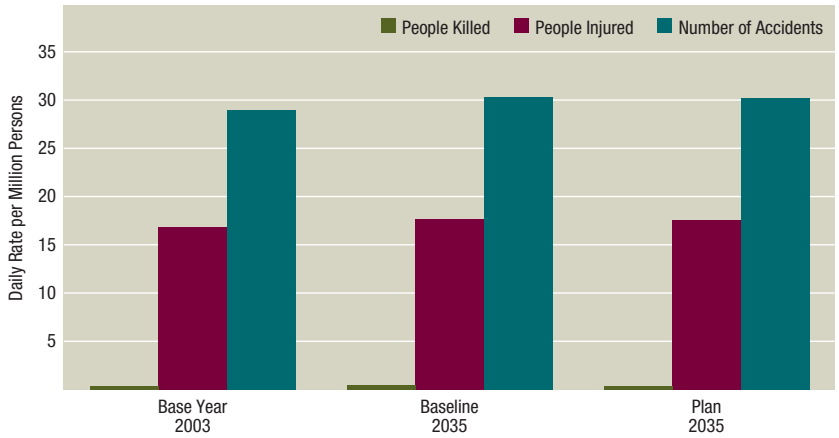
Improving safety by minimizing accidents is a critical outcome of the RTP. The safety indicators used to measure and track safety-related performance are:

- Fatalities per million persons
- Injuries per million persons
- Property damage accidents per million persons

State and regional transportation agencies dedicate funds to projects that specifically address safety deficiencies. However, it is not possible to predict the reduction in accident rates resulting from these investments. Hence, the safety results presented here are estimated based on current accident rate trends for the different modes applied to projected levels of system use by mode. They represent a conservative estimate for safety benefits.

Figure 5.7 compares safety indicators for the Base Year, Baseline, and Plan scenarios. The overall improvement is estimated based on overall accident rates by mode (e.g., auto, bus, and rail) and facility (e.g., freeways and principal arterials).

FIGURE 5.7 ACCIDENT RATES



SUSTAINABILITY

A transportation system is sustainable if it maintains its overall performance over time with the same costs for its users. Sustainability, therefore, reflects how our decisions today affect future generations. The indicator for sustainability is the total inflation-adjusted cost per capita to maintain overall system performance at current conditions.

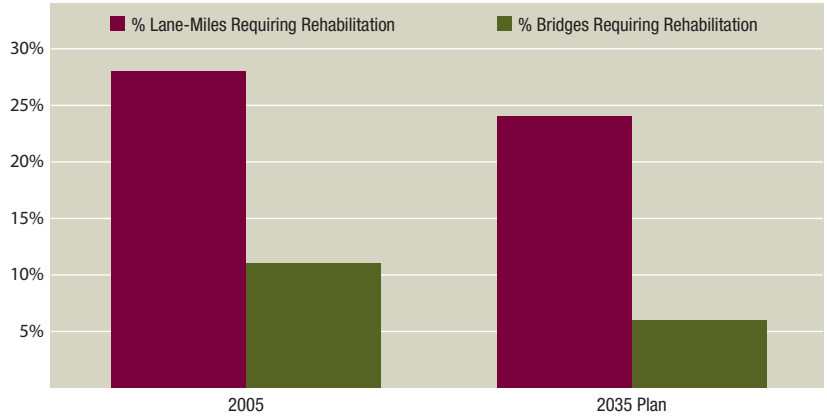
The performance measures presented in this chapter show that the planned transportation system in 2035 will perform better in some cases (e.g., safety, preservation) and worse in others (e.g., delay per capita) compared to today. Moreover, the overall cost of the Plan represents a significant increase in nominal costs based on increased taxes to fund additional regional projects discussed in Chapter III as well as incremental preservation and operations investments.

PRESERVATION

The preservation outcome reflects how well the region is taking care of its multimodal transportation infrastructure. As discussed in Chapter II of this document, deferred maintenance investments end up costing much more in the future as the conditions of our assets (e.g., pavement) deteriorate.

Figure 5.8 shows the benefits of the additional expenditures dedicated in this RTP over and beyond the historical trends. As of 2005, 28 and 11 percent of the SCAG Region's roadways and bridges required rehabilitation, which are more intensive and expensive projects. As a result of the incremental investments, these percentages are projected to fall to 24 percent for roadways and 6 percent for bridges. Similar improvements are expected for regional arterials as well.

FIGURE 5.8 PRESERVATION IMPROVEMENTS



COST-EFFECTIVENESS

Cost-effectiveness reflects the degree to which transportation expenditures in the Plan yield benefits that the transportation users experience. It attempts to measure how much "bang for the buck" is received from the Plan. The indicator for cost-effectiveness is the benefit-cost ratio. Benefits are divided into several categories as follows:

- Delay savings
- Safety improvements
- Air quality improvements
- Reductions in vehicle operating costs

For each of these categories, models are used to estimate the benefits of the Plan compared to Baseline. The benefits are converted into dollars, added together, and divided by the total incremental costs of the Plan's transportation improvements. Table 5.4 summarizes the results of the benefit-cost analysis.

TABLE 5.4 SCAG REGIONAL PERFORMANCE ANALYSIS BENEFIT/COST RESULTS

Project	Value of $1 Invested
2008 RTP	$2.21

SCAG's 2008 RTP provides a $2.21 return for every dollar invested. For this analysis, all benefits and costs are expressed in year 2007 dollars. Benefits are estimated through the year 2035. The user benefits are estimated using methodologies consistent with the Cal B/C model adjusted to incorporate SCAG's regional travel demand model output. Costs include incremental public expenditures over the RTP time period.

While $2.21 return on every dollar invested is an excellent return on investment, it is lower than the $3.08 reported in the 2004 RTP. Several factors influence this outcome. First, project costs have skyrocketed over the past several years, negatively impacting the rate of return. Second, this Plan proposes significant investment increases in strategies that do not easily translate into readily quantifiable benefits based on currently available tools, namely SCAG's transportation demand model. Such investment categories include system preservation, system operation and management, and investments that are not captured in SCAG's demand model, such as rail improvements associated with goods movement.

Transportation Conformity Analysis

Transportation conformity is required under the federal Clean Air Act (CAA) to ensure that federally supported highway and transit project activities conform to the purpose of the State Implementation Plan (SIP).[1] Conformity to the purpose of the SIP means that transportation activities will not cause new

[1] To comply with the CAA in achieving the NAAQS, the ARB develops SIPs for federal non-attainment and maintenance areas. In California, SIP development is a joint effort of the local air agencies and ARB working with federal, state, and local agencies (including the MPOs). Local Air Quality Management Plans (AQMPs) are prepared in response to federal and state requirements.

air quality violations, worsen existing violations, or delay timely attainment of the relevant National Ambient Air Quality Standards (NAAQS). Conformity applies to areas that are designated non-attainment, and those re-designated to attainment after 1990 ("maintenance areas") for the following transportation-related criteria pollutants: ozone, particulate matter (PM2.5 and PM10), carbon monoxide (CO), and nitrogen dioxide (NO2).

NON-ATTAINMENT/MAINTENANCE AREAS

The boundaries of the federal non-attainment/maintenance areas in the SCAG Region are:

- Ventura County portion of the South Central Coast Air Basin (SCCAB) — The entire county is a non-attainment area for ozone.
- South Coast Air Basin (SCAB) — The entire basin is a non-attainment or maintenance area for NO2, CO, PM10, PM2.5, and ozone.
- Western MDAB (Antelope Valley portion of Los Angeles County and San Bernardino County portion of MDAB excluding Searles Valley) — This is a non-attainment area for ozone.
- San Bernardino County portion of MDAB.
  - Searles Valley (situated in the NW part of the county) is a non-attainment area for PM10.
  - San Bernardino County (excluding the Searles Valley area) portion of MDAB is a non-attainment area for PM10.
- Riverside County portion of Salton Sea Air Basin (SSAB) — The entire Riverside County portion of SSAB (Coachella Valley) is a non-attainment area for PM10 and ozone.
- Imperial County portion of SSAB - The entire Imperial County portion of SSAB is designated as a non-attainment area for ozone and PM10.

CONFORMITY TESTS

The 2008 RTP must pass the following tests and analyses to meet the requirements for a positive conformity finding:

- Regional Emission Analysis
- Timely Implementation of Transportation Control Measures (TCMs) Analysis
- Financial Constraint Analysis
- Interagency Consultation and Public Involvement Analysis

REGIONAL EMISSIONS ANALYSIS

Regional emissions analyses, by non-attainment area and by pollutant, compare on-road emissions to the applicable on-road emissions budgets in the SIPs for the SCAG Region. The applicable emissions budgets are those found to be adequate for conformity determination by the U.S. EPA. In the absence of applicable emissions budgets, the regional emission tests for conformity finding are based on either a build/no-build or less-than-Base-Year scenario.

Due to recent litigation relative to U.S. EPA's Eight-Hour Ozone Phase 2 Rule, EPA has instructed ARB to revise the established method of demonstrating Reasonable Further Progress (RFP) in ozone non-attainment areas that utilize reductions from other areas to demonstrate attainment (e.g., upwind areas). In the SCAG Region, these areas are the Ventura County portion of the SCCAB, the Western MDAB, and the Coachella Valley portion of the SSAB. Therefore, at this time, there are no AQMPs or SIPs and, thus, no 8-hour ozone transportation emission budgets for these areas. SCAG has worked closely with the ARB and EPA to resolve this issue. As agreed upon by ARB and EPA, ARB has adopted Early Progress Plans (i.e., emissions inventories and transportation emission budgets) for areas that need upwind reductions to show RFP. The Early Progress Plans establish the transportation emission budgets while EPA decides how to respond to the RFP issue raised by the litigation. EPA found these emission budgets adequate in April 2008.



In addition, EPA's review of the South Coast ozone and PM2.5 emission budgets raised concerns such that the ARB was required to revise and resubmit the emission budgets to EPA. This requirement dictated that SCAG make appropriate revisions to the conformity analysis to reflect the new emission budgets and rerelease the Draft Conformity Report. SCAG staff worked closely with the federal reviewing agencies regarding the emission budget adequacy and conformity approval review process timeline. From these efforts, all agencies confirmed they will expedite their respective reviews to allow for approval of SCAG's conformity finding before the current (2004) RTP conformity finding expires on June 7, 2008.

TIMELY IMPLEMENTATION OF TCMS ANALYSIS

This conformity test requires Transportation Control Measures (TCM) projects subject to reporting be fully funded and on schedule. In the SCAG Region, there are two areas for which SIPs contain TCMs: the ozone AQMPs/SIPs for the SCAB, and for the Ventura County portion of SCCAB. SCAG works with the CTCs to ensure TCMs are on schedule or that steps are being taken to overcome obstacles.

FINANCIAL CONSTRAINT ANALYSIS

The 2008 RTP is financially constrained and is financed by federal, state, local and private sources. Detailed information on the financial analysis is included in Chapter IV.

INTERAGENCY CONSULTATION AND PUBLIC INVOLVEMENT

Throughout its development, the 2008 RTP has been discussed at meetings of various policy committees, working groups (including the Transportation Conformity Working Group), task forces, and technical advisory committees. SCAG's Transportation Conformity Working Group has served as a forum for interagency consultation, and additionally, there were many ad hoc meetings held between the involved agencies for this purpose. SCAG's RTP public outreach effort is documented in a separate Public Participation report. Continued interagency consultation and public involvement will occur throughout the public review process.

CONFORMITY FINDING

The conformity analysis indicates a positive conformity finding for the 2008 RTP. The detailed transportation conformity analyses for the 2008 RTP are included in the 2008 RTP Conformity Report.

Environmental Justice

The environmental justice movement stems from Title VI of the Civil Rights Act of 1964. This title declares it to be the policy of the United States that discrimination on the grounds of race, color, or national origin shall not occur in connection with programs and activities receiving federal financial assistance,

and authorizes and directs the appropriate federal departments and agencies to take action to carry out this policy. Title VI of the Civil Rights Act of 1964 provides a significant means by which the public can seek greater accountability from transportation agencies. Title VI bars intentional discrimination, but also unjustified disparate impact discrimination.[2]

SCAG'S ENVIRONMENTAL JUSTICE POLICY & PROGRAM

Environmental Justice is an integral part of the planning process, which must be considered in all phases of planning. SCAG's environmental justice program includes two main elements: public outreach and technical analysis.

ENVIRONMENTAL JUSTICE PUBLIC OUTREACH

Public outreach efforts are intended to ensure that all members of the public have an opportunity to participate meaningfully in the planning process. SCAG's public outreach efforts include the following:

- Compliance Procedure for Environmental Justice in the Transportation Planning Process — In October 2000, SCAG released the Compliance Procedure for Environmental Justice in the Transportation Planning Process, which provided a detailed description of SCAG's public outreach activities. Since its publication, SCAG staff has utilized this guidance document to ensure that it 1) includes traditionally unrepresented groups early and throughout the planning process; 2) carefully examines performance measures to determine any inequities of the RTP on any group; 3) and follows the self-evaluation procedure for public outreach and environmental justice analysis programs.
- Public Workshops — SCAG holds workshops throughout the planning process and targets minority and low-income communities throughout the region. Follow-up workshops are held with groups that want to stay involved throughout the planning cycle.
- Presentations — SCAG conducts presentations upon request to a variety of groups. These include Chambers of Commerce, community-based organizations, nonprofit groups, etc. Generally, these presentations provide an overview of SCAG and its function as an MPO.
- Website Dissemination — SCAG utilizes its website to provide information on the RTP. SCAG works to ensure that the information available is timely, easy to understand and accessible, and that the website is compliant with the 1990 Americans with Disabilities Act. SCAG's RTP and the EJ program have individual webpages dedicated to each.[3]
- Documentation — Following each contact with the public, every comment and concern is recorded in writing regardless of source. Each comment is logged, categorized, and submitted to SCAG planning staff for review and consideration.

TECHNICAL ANALYSIS

The goal of the 2008 RTP environmental justice analysis is to ensure that when transportation decisions are made, low-income and minority communities have ample opportunity to participate in the decision-making process and receive an equitable distribution of benefits and not a disproportionate share of burdens.[4]

Identifying Demographic Groups

Executive Order 12898 and the DOT and FHWA Orders on Environmental Justice define "minority" as persons belonging to any of the following groups, as well as "other" categories that are based on self-identification of individuals in the U.S. Census[5]: Black, Hispanic, Asian, American Indian and Alaskan Native, and Native Hawaiian or Other Pacific Islander. SCAG bases its analyses on the latest census data for ethnic/racial groups in the SCAG Region, by census tract and by transportation analysis zone (TAZ).

[2] CommunityLink 21, Regional Transportation Plan: Equity and Accessibility Performance Indicators http://www.fhwa.dot.gov/environment/ejustice/case/case4.htm

[3] RTP Website:http://scag.ca.gov/rtp2008/
EJ Website: http://scag.ca.gov/environment/ej.htm

[4] Caltrans. Desktop Guide: Environmental Justice in Transportation Planning Investments. January 2003.

[5] http://www.fhwa.dot.gov/environment/ej2000.htm

Identifying low-income and minority populations is necessary both for conducting effective public participation and for assessing the distribution of benefits and burdens of transportation plans and projects. For the purposes of this analysis, SCAG focused on all low-income groups and minority populations. The minority population in the SCAG Region comprises over 70 percent of the population. The predominant minority groups are Hispanics and Asian/Pacific Islanders, which combine to account for 66 percent of the total minority population within the SCAG Region. Poverty level is a federally established income guideline used to define persons who are economically disadvantaged, as defined by the U.S. Department of Health & Human Services guidelines.[6] The poverty level applicable to the SCAG Region is chosen on the basis of regional average household size for the census year. For example, for a regional mean of 2.98 persons—rounded to 3—per household, the threshold would consist of the sum of the value for the first person plus two additional people. The household counts in each income range are then used to determine the number and percentage of households in each census tract below the poverty level. In 2007, a family of three earning less than $17,170 was classified as living in poverty.

In addition to complying with federal guidance, SCAG also conducts income equity analyses based on five income quintiles. A quintile, by definition, is a category into which 20 percent of the ranked population falls. For each new analysis, SCAG defines regional income quintiles based on the most recent census data on household income. Once the income quintiles are established, the incidence of benefits and costs can be estimated and compared across these income categories. Table 5.5 lists the demographic categories used in SCAG's EJ analysis.

TABLE 5.5 DEMOGRAPHIC CATEGORIES USED IN SCAG ENVIRONMENTAL JUSTICE ANALYSIS

Ethnic/Racial/Other Categories (persons)	Income Categories (households)
White (Non-Hispanic)	Below Poverty Level
African-American	100%–150% of Poverty Level
American Indian	150%–200% of Poverty Level
Asian/Pacific Islander	Income Quintile 1 (lowest)
Hispanic (Latino)	Income Quintile 2
Other	Income Quintile 3
Disabled/Mobility Limited	Income Quintile 4
Age 65 and Above	Income Quintile 5

The 2008 RTP Plan versus Baseline

The comparison of the Plan versus Baseline is the primary focus of the environmental justice analysis for the 2008 Regional Transportation Plan. The basic concept is to compare the performance of the Plan (2035) to the Baseline scenario for 2035. For the purposes of this analysis, the Plan represents the selected strategy to guide the Region's transportation planning over the next three decades and Baseline is defined as the set of all projects and investments currently underway or for which funds are already committed. Baseline represents "business as usual" and assumes current land use trends and the completion of projects currently under construction or with funding available for construction over the next few years. The data for the analysis is based on the SCAG Regional travel demand model results.

[6] White House Council on Environmental Quality (CEQ). Environmental Justice Guidance Under the National Environmental Policy Act, December 1997.

Performance Measures

In the development of the Plan, SCAG utilized a number of performance measures designed to assess the overall equity.

- Accessibility (Employment Services and Parks)
- Distribution of Plan Expenditures (Investments)
- Taxes Paid
- Auto Travel Time Savings
- Auto Travel Distance Reductions
- Environmental Impact Analyses (Air Emissions and Noise)

These performance measures were intended to evaluate how low-income and minority communities fared under RTP investments. The performance measures and the results of the analysis are described in detail below.

ACCESSIBILITY TO EMPLOYMENT SERVICES

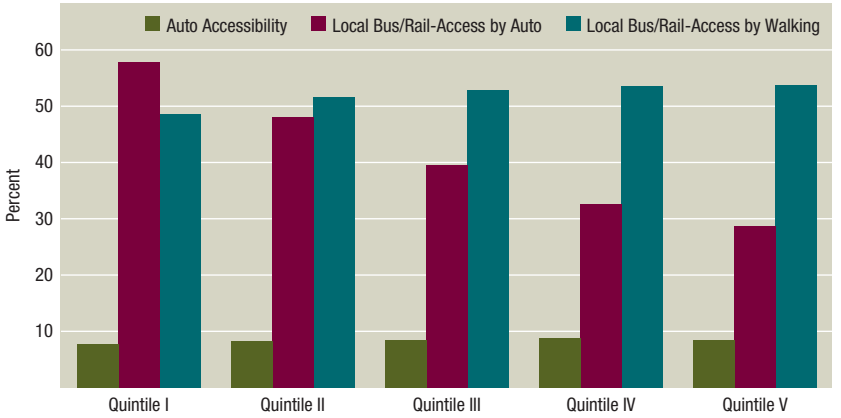
Accessibility is a foundation for social and economic interactions. As an indicator, accessibility is measured by the spatial distribution of potential destinations; the ease of reaching each destination; and the magnitude, quality and character of the activities at the destination sites. Travel costs are central: The lower the costs of travel, in terms of time and money, the more places that can be reached within a certain budget and, thus, the greater the accessibility. Destination choice is equally crucial: The more destinations and the more varied the destinations, the higher the level of accessibility.[7]

Employment accessibility evaluates how well the transportation system is providing access to jobs for underrepresented populations. In this analysis, employment accessibility is defined as the percentage of total employment opportunities that can be reached within 30 minutes during the PM peak period.

[7] CommunityLink 21, Regional Transportation Plan: Equity and Accessibility Performance Indicators: http://www.fhwa.dot.gov/environment/ejustice/case/case4.htm

Figure 5.9: Comparison of Employment Accessibility Improvements by Travel Mode and Income Category shows the percentage improvement between the Plan versus Baseline. It is projected that low-income communities in the region will have better access to employment via local bus and rail compared to higher-income groups. This can be attributed to the number of system expansion projects proposed in the 2008 RTP, which includes a number of commuter/light/heavy rail improvements and bus rapid transit expansion projects. Additionally, improvements in accessibility via automobile are expected to be lower than improvements via transit for any quintile group. The results indicate that on a regional scale, no disproportionate impacts are anticipated between income groups as a result of the Plan.

FIGURE 5.9 COMPARISON OF EMPLOYMENT ACCESSIBILITY IMPROVEMENTS BY TRAVEL MODE AND INCOME CATEGORY (PLAN VS. BASELINE, 2035)



ACCESSIBILITY TO PARKS

Numerous national parks, state parks, and local parks are all found within the SCAG Region. However, not all neighborhoods and people have equal access to these public resources. For the purposes of this analysis, three types of

parks were considered: 1) local parks; 2) state parks; and 3) national parks. The acreage of each park type in all TAZs was identified. Similar to the method in measuring job accessibility, park accessibility is defined as the percentage of park acreage reachable within a 30-minute off-peak travel time period via 1) automobile; 2) local bus/urban rail via automobile; and 3) local bus/urban rail via walking. Without a weekend regional transportation model system, the existing typical weekday model was utilized for the analysis. Because visits to parks are, by nature, leisure trips, off-peak travel time is used instead of peak travel time. For transit travel time, both the waiting time and the on-board time are included.

FIGURE 5.10 PARK ACCESSIBILITY BY TRAVEL MODE AND INCOME CATEGORY (BASELINE 2035)

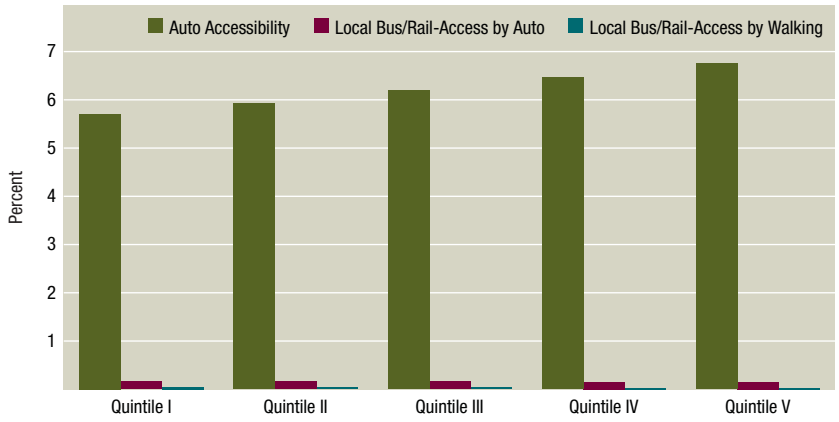


Figure 5.10: Park Accessibility by Travel Mode and Income Category shows the access to parks in the Baseline scenario. Park accessibility by transit is much lower than that by automobile for all income groups. However, Quintiles IV and V will have moderately higher access to parks in the region via automobile.

FIGURE 5.11 NATIONAL PARK ACCESSIBILITY BY TRAVEL MODE AND INCOME CATEGORY (BASELINE 2035)

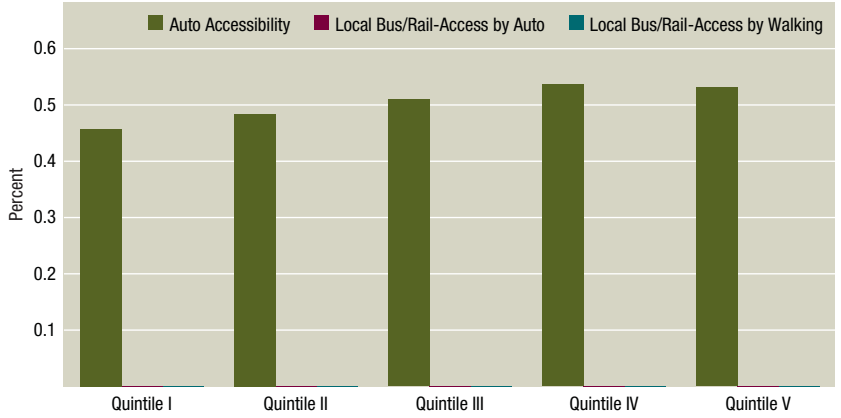
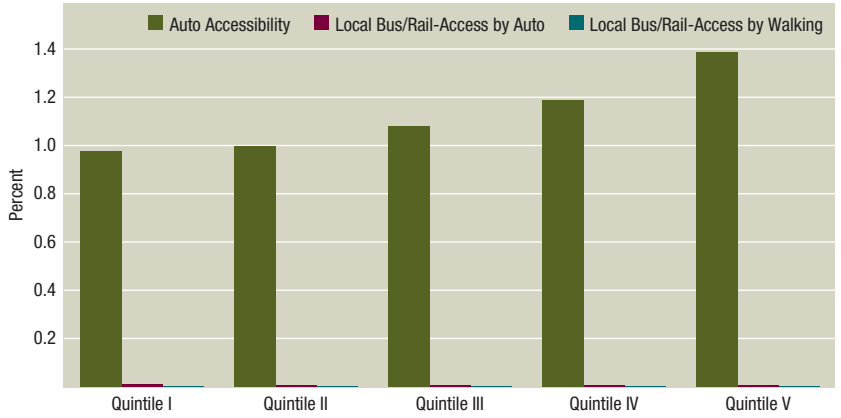


FIGURE 5.12 STATE PARK ACCESSIBILITY BY TRAVEL MODE AND INCOME CATEGORY (BASELINE 2035)

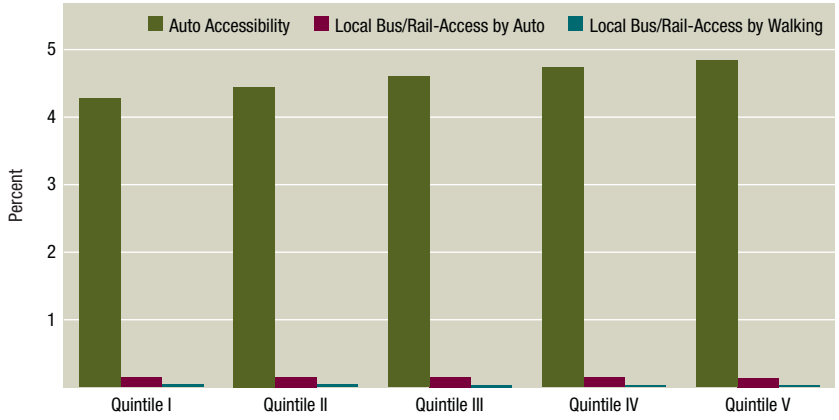


Research has found a complete lack of public transportation services into national parks,[8] but this also appears true for state parks. There is almost no

[8] Frescas, Ron, Chris Martin, and Christine Steenken. Public Transportation to Local National Forests. April 15, 2004.

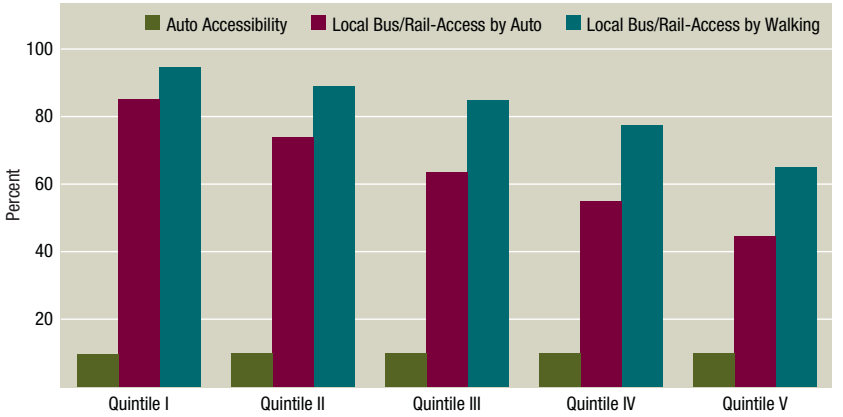
access to national parks and very limited access to state parks by transit across all income groups in the Baseline scenario (see Figure 5.11: National Park Accessibility by Travel Mode and Income Category, and Figure 5.12: State Park Accessibility by Travel Mode and Income Category).

FIGURE 5.13 LOCAL PARK ACCESSIBILITY BY TRAVEL MODE AND INCOME CATEGORY (BASELINE 2035)



The analysis also concluded that local parks are mostly accessible via the automobile. Figure 5.13: Local Park Accessibility by Travel Mode and Income Category reveals that there is limited transit service that accommodates local parks and, regionwide, there is a marginal difference in accessibility between all income groups.

FIGURE 5.14 COMPARISON OF PARK ACCESSIBILITY IMPROVEMENTS BY TRAVEL MODE AND INCOME CATEGORY (PLAN VS. BASELINE, 2035)



As shown in Figure 5.14: Comparison of Park Accessibility Improvements by Travel Mode and Income Category, park accessibility for all income groups by three travel modes is expected to improve under the Plan scenario.

FIGURE 5.15 COMPARISON OF PARK ACCESSIBILITY IMPROVEMENTS BY PARK TYPE AND TRAVEL MODE (PLAN VS. BASELINE, 2035)

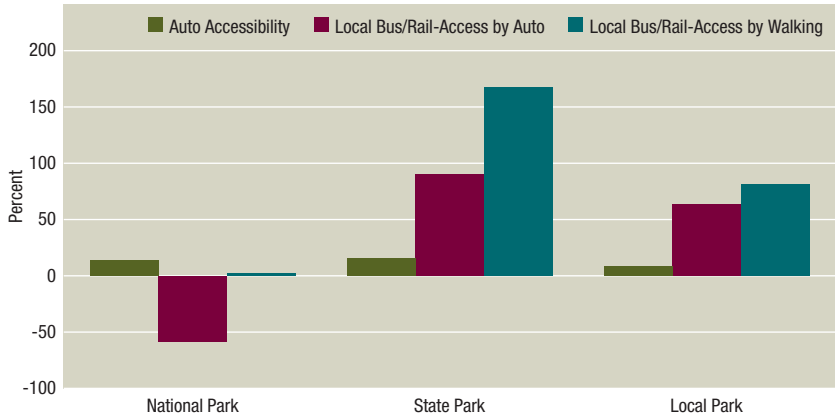


Figure 5.15: Comparison of Park Accessibility Improvements by Park Type and Travel Mode displays the improvement of park accessibility by park type: national park, state park and local parks. The results reveal that there will be significant improvements in accessibility to both state and local parks by all three travel modes. However, the accessibility to the national parks shows minor improvement, and even decreases for the mode of local bus/rail-access by auto.

PLAN EXPENDITURES/INVESTMENTS

SCAG reports expenditure distribution in several ways. First, SCAG estimates the share of total RTP expenditures allocated to each category of household income. This is done by totaling expenditures on each type of mode (bus, HOV lanes, commuter/high-speed rail, highways/arterials, and light/heavy rail). These expenditures are then allocated to income categories based on each income group's tendency to use these modes.[9]

[9] Caltrans. Desktop Guide: Environmental Justice in Transportation Planning Investments. January 2003.

SCAG analyzed the distribution of Plan expenditures based on mode usage information by income quintile. As illustrated in Figure 5.16: Distribution of Plan Expenditures by Income Category, approximately 28 percent of Plan investments will be invested in modes predominantly used by the lowest quintile group, while 16 percent will be invested in modes used by the highest-income category (Quintile V). A total of 68 percent of transportation investments would go to modes likeliest to be used by the lower-three-income households in the 2008 RTP.

FIGURE 5.16 DISTRIBUTION OF PLAN EXPENDITURES BY INCOME CATEGORY

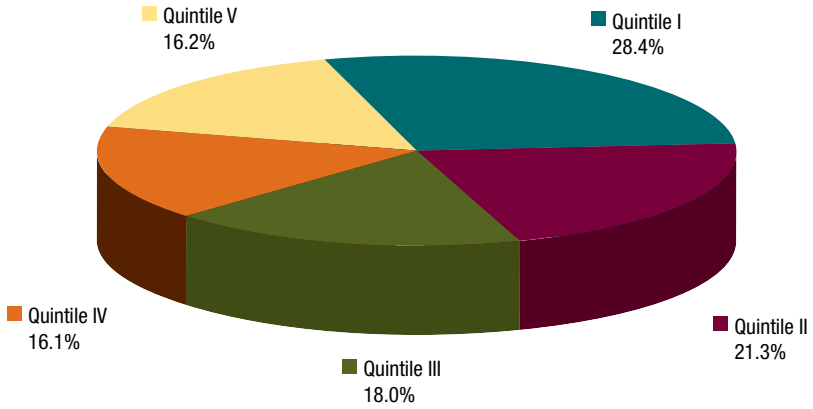


Figure 5.17: Distribution of Plan Expenditures by Ethnic/Racial Category evaluates the allocation of transportation investments in modes used by various ethnic/racial categories. The current analysis reveals that under the 2008 RTP, Plan investments will be distributed more equitably on the basis of system usage by ethnic/racial groups.

FIGURE 5.17 DISTRIBUTION OF PLAN EXPENDITURES BY ETHNIC/RACIAL CATEGORY

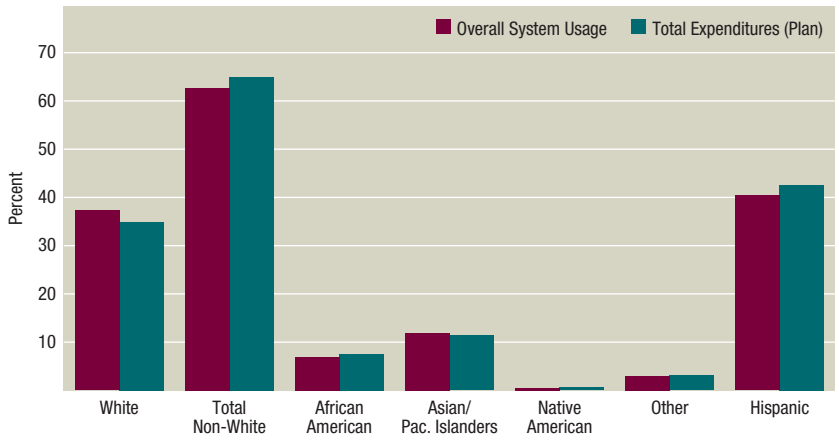
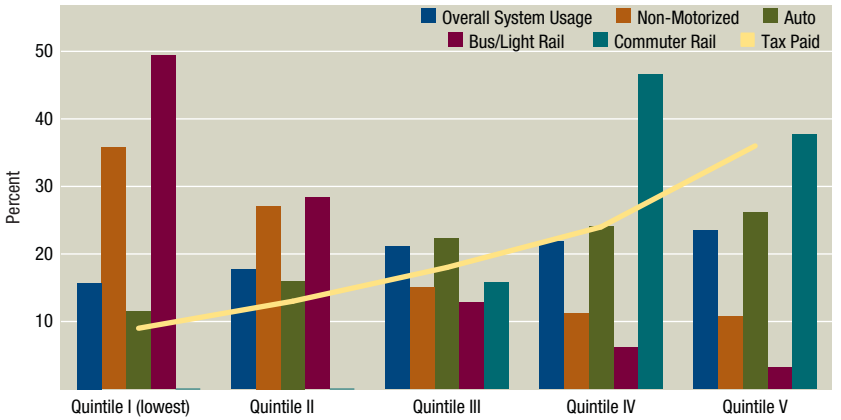


FIGURE 5.18 SHARE OF TAXES PAID BY INCOME CATEGORY*



** The contents in this chart use both work and non-work trips; rail capacity uses only work trip data.*

** Share of Tax Paid includes sales and gasoline taxes.*

TAXES PAID

The 2008 RTP environmental justice analysis performed a comparative analysis of the amount of taxes (sales, gasoline, and income) paid by five income groups. Figure 5.18: Share of Taxes Paid by Income Category, indicates that tax burdens are expected to fall heavily on higher-income groups. The lower-income groups (Quintile I and Quintile II), which use bus and light rail as their primary modes of travel, are anticipated to pay 22 percent of taxes.

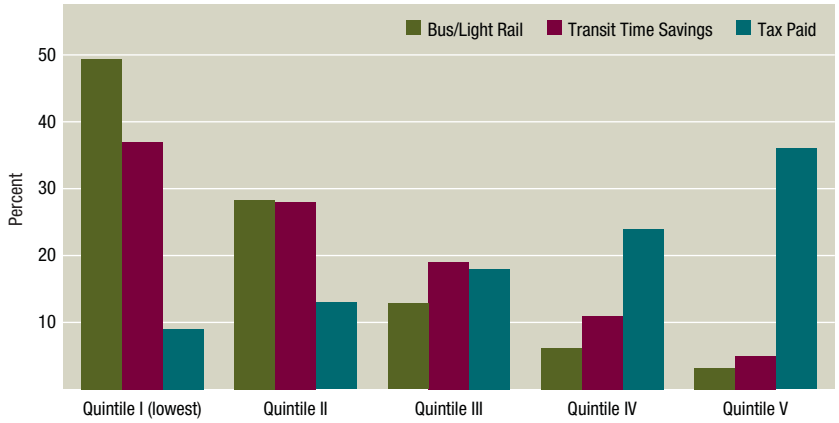
DISTRIBUTION OF TRAVEL TIME SAVINGS

This analysis involved measuring the average travel time for both work trips and non-work trips. SCAG assesses the distribution of travel time savings that are expected to result from the Plan's implementation. SCAG conducted this analysis for transit (i.e. bus and light rail) and automobile. These travel time savings were reported as a proportion of the total travel time savings for each mode.

Figure 5.19: Share of Transit System Usage, Transit Travel Time Savings, and Taxes Paid, shows the results for low-cost transit modes, such as local bus and light rail, for the five income groups. According to the 2008 RTP analysis, the two lowest-income quintiles will pay just over 20 percent of total taxes collected in the region, but will enjoy 65 percent of the transit time savings. The two highest-income quintiles share of taxes (60 percent) will exceed the benefits they receive in local transit time savings (16 percent) and account for only 9 percent of total bus and light rail usage. The findings indicate that

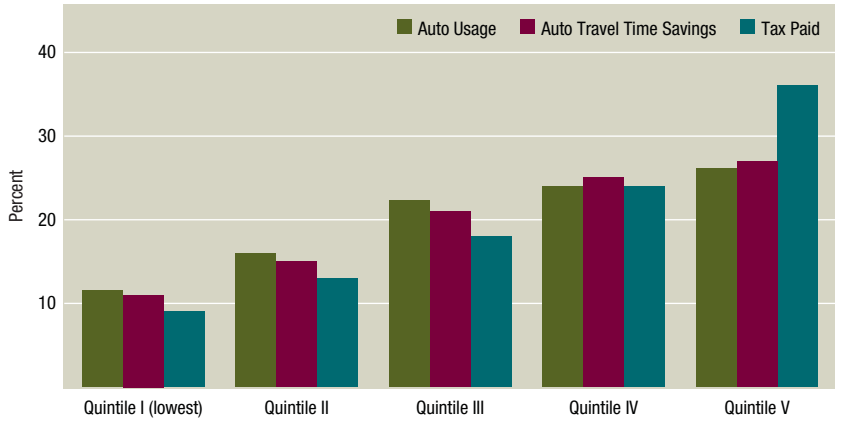
transit travel times for lower-income groups for both work and non-work trips are expected to decrease due to the number of new bus and rail improvements proposed in the 2008 RTP.

FIGURE 5.19 SHARE OF TRANSIT SYSTEM USAGE, TRANSIT TRAVEL TIME SAVINGS, AND TAXES PAID



Results are also shown for trips made by automobile. Figure 5.20: Share of Auto Usage, Auto Travel Time Savings, and Taxes Paid, illustrates that the share of benefits is proportionate to the share of taxes paid. Higher-income groups are anticipated to have the most benefit in auto travel time savings, but will also incur the highest taxes. This can be attributed to the fact that higher-income groups (Quintiles IV and V) have higher access to private automobiles and will use this as their primary mode of travel. However, that benefit comes at a steep price, as the two highest-income quintiles pay for 60 percent of total taxes.

FIGURE 5.20 SHARE OF AUTO USAGE, AUTO TRAVEL TIME SAVINGS, AND TAXES PAID

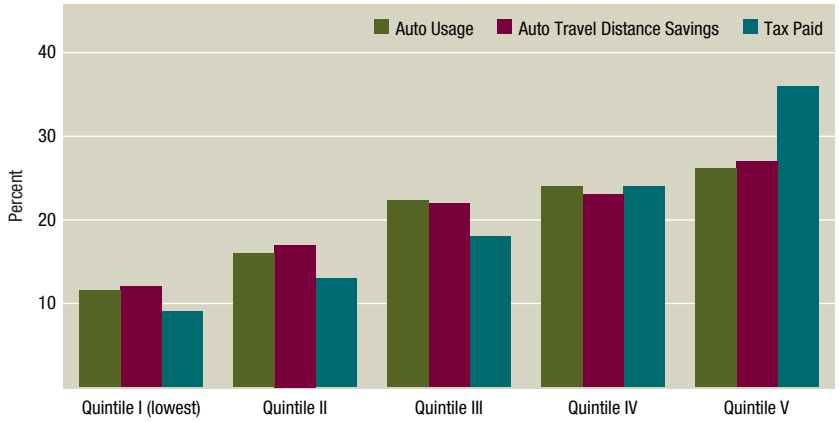


TRAVEL DISTANCE REDUCTIONS

Another way of estimating benefits is to calculate savings in terms of person-miles traveled (PMT). These results indicate that the share of auto travel distance savings, like that for time savings, generally resembles the share of usage and taxes paid.

The underlying assumption for Figure 5.21: Share of Auto Usage, Auto Travel Distance Savings and Taxes Paid, is that the share of auto travel distance savings is generally proportionate to the share of taxes paid and transportation system usage between all income groups. The taxes paid by the highest,income group (36 percent) are anticipated to exceed their share of benefits (27 percent). The lowest,quintile group is expected to have the least amount of benefits, accounting for 12 percent of auto usage and travel distance savings. They will also pay the least amount of taxes at 9 percent. Higher,income groups are anticipated to have the most benefits because their primary mode of travel will be the automobile.

FIGURE 5.21 SHARE OF AUTO USAGE, AUTO TRAVEL DISTANCE SAVINGS AND TAXES PAID



ENVIRONMENTAL IMPACTS

Transportation projects can have both a positive or negative impact on the environment. On the one hand, investments can cause travelers to shift to less-polluting modes (e.g., bus, train, carpooling, or commuter rail). On the other hand, investments that increase traffic on a particular facility usually degrade air quality in the immediate vicinity of that facility.[10]

Air Pollutant Emissions

Minorities and low-income groups may be particularly vulnerable to the effects of air pollution. SCAG's analysis is based on emissions estimates for pollutants that have localized health effects: carbon monoxide (CO) and particulate matter (PM). Analysis was also conducted for PM exhaust emissions from heavy-duty vehicles, an indicator for diesel toxic air contaminants. The results were computed based on the average emissions at the TAZ level and weighted according to the population of each ethnic or income group in that TAZ. This analysis focuses on air emissions and noise impacts generated from aviation and highway activity.

It is important to note that total emissions of all pollutants in the region will decrease compared to existing conditions with or without the Plan, due to the combination of measures being taken to meet air quality standards. Since the Plan must demonstrate conformity with regional air quality management plans that call for reductions in emissions of air pollutants, the Plan itself will likewise result in reductions of pollutant emissions. This is generally because the Plan investments will alleviate roadway congestion and provide a greater range of alternatives to the use of a car. The following analysis, however, is based on a comparison of Plan to Baseline conditions, rather than a comparison of Plan to current conditions.

Since ambient pollutant concentration levels that are directly linked to localized emissions could not be easily estimated, the geographic emissions distribution analysis presented here focuses on pollutants that tend to have localized effects which are generally proportionate to emissions—carbon monoxide (CO) and fine particulate matter (PM10). The analysis does not cover pollutants that do not have localized effects proportionate to emissions, but are regionally distributed as a result of chemical interactions, photochemical reactions and meteorology (VOC, NOx, and SOx).

In addition, this methodology assumes that all residents in a given TAZ are equally exposed. Generally, both CO and PM10 tend to impact those located closest to the source of emissions. Thus, in a TAZ containing a roadway, those closest to the roadway would experience greater emissions and potential health impacts than those located further away. This differential as it might exist within TAZs is not addressed by this analysis; only differences between the aggregate demographic totals of different TAZs are addressed. Notwithstanding these assumptions, the methodology presents a reasonable gross measure of air quality impacts of mobile sources in the region.

[10] Caltrans. Desktop Guide: Environmental Justice in Transportation Planning Investments. January 2003.

FIGURE 5.22 DECREASE IN AIR POLLUTANT EMISSIONS BY INCOME CATEGORY (PLAN VS. BASELINE, 2035)

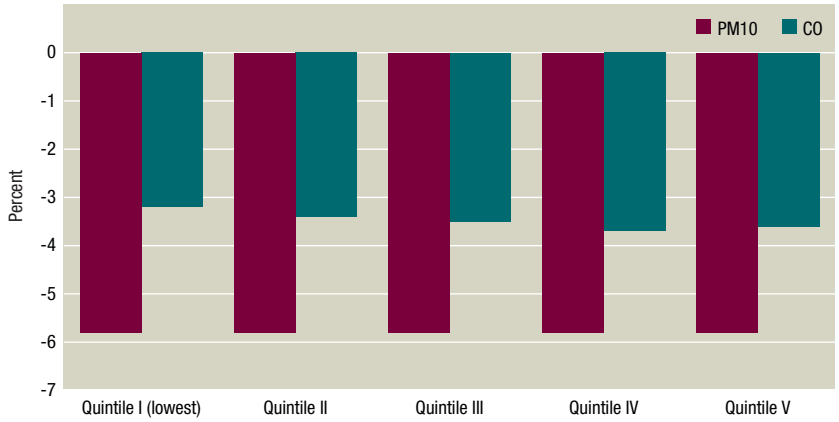
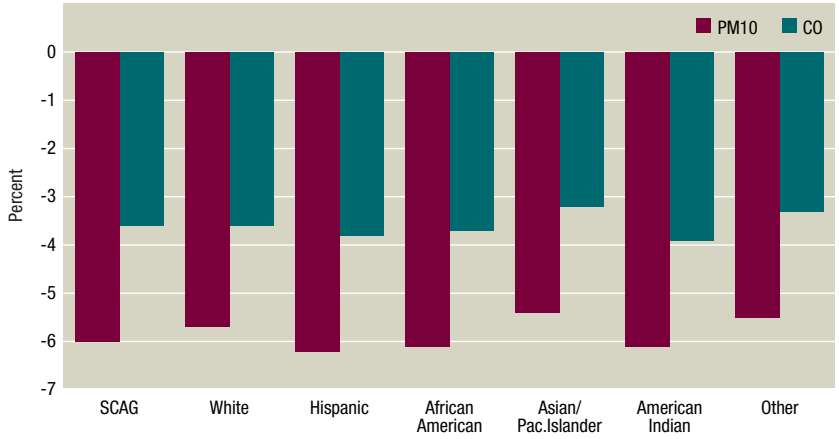


FIGURE 5.23 DECREASE IN AIR POLLUTANT EMISSIONS BY ETHNIC/ RACIAL CATEGORY (PLAN VS. BASELINE, 2035)



Overall, the region as a whole will generally experience an improvement in air quality via reductions in transportation-related emissions. As illustrated by Figure 5.22: Decrease in Air Pollutant Emissions by Income Category, and Figure 5.23: Decrease in Air Pollutant Emissions by Ethnic/Racial Category, on a regional scale, all income and ethnic groups will experience reductions in PM10 and CO under the Plan.

Aviation Noise Impacts

The SCAG Region supports the nation's largest regional airport system in terms of number of airports and aircraft operations, operating in a very complex airspace environment. One significant challenge is striking a balance between aviation capacity needs of Southern California with local quality-of-life constraints for the affected populations.

Projected noise impacts from aircraft operations at the region's airports in 2035 were modeled for inclusion in the PEIR for the RTP. For each airport, modeling produced a contour or isoline for the 65 dB Community Noise Equivalent Level (CNEL), a measure of noise that takes into account both the number and the timing of flights, as well as the mix of aircraft types. The Federal Aviation Administration (FAA) considers residences to be an "incompatible land use" with noise at or above 65dB this CNEL level.

To identify potentially impacted populations, the anticipated population within the 65 dB CNEL contour was calculated by the following steps:

1. Calculating the percentage of TAZs that would lie within a 65 dB CNEL contour
2. Assigning the SCAG projected population to the TAZ
3. Applying the demographic breakdown of the TAZ as a whole to the population within the 65 dB CNEL contour

For the purposes of this study, Aviation Noise Areas are defined as areas that are adversely affected by aircraft and airport noise. Figure 5.24: Distribution of Households in Aviation Noise Areas by Income Category, demonstrates that there is a marginal disproportionate impact between each income group in the 2008 RTP, which is similar to the findings in the 2004 RTP. The disparity between the lowest and highest quintile groups is approximately 7 percent. Each income quintile (by definition) contains 20 percent of the region's

households in 2035. Under the 2008 RTP, the lowest-income group (Quintile 1) will represent 23 percent of the households impacted by noise above the 65 dB CNEL.

FIGURE 5.24 DISTRIBUTION OF HOUSEHOLDS IN AVIATION NOISE AREAS BY INCOME CATEGORY (PLAN VS. BASELINE, 2035)

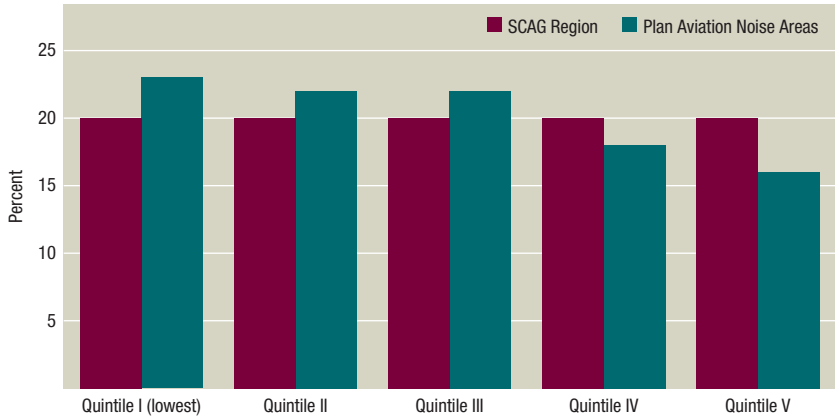


FIGURE 5.25 DISTRIBUTION OF HOUSEHOLDS IN AVIATION NOISE AREAS BY ETHNIC/RACIAL CATEGORY (PLAN VS. BASELINE, 2035)

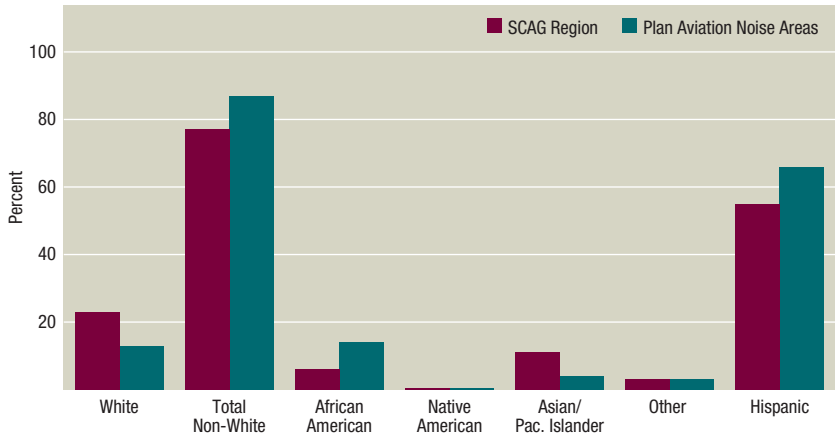


Figure 5.25: Distribution of Households in Aviation Noise Areas by Ethnic/Racial Category, indicates that the 2008 RTP is projected to have a disproportionate aviation noise impact on minority groups. Although non-whites will comprise 77 percent of the region's population in 2035, they will make up 87 percent of those affected by the 65 dB CNEL contour. In particular, 66 percent of the impacted population will be Hispanics, which is a 20 percent increase from the 2004 RTP.

Although the gap between the income groups is projected to be a marginal difference, the environmental justice analysis results demonstrate that lower-income and minority residents still bear a disproportionate burden from aviation noise pollution with the 2008 RTP.

Highway Noise Impacts

Noise associated with highway traffic depends on a number of factors that include traffic volumes, vehicle speed, vehicle fleet mix (cars, trucks), as well as the location of the highway with respect to sensitive receptors. According to Federal Highway Administration (FHWA) guidance, noise impacts occur when noise levels increase substantially when compared to existing noise levels. For the purposes of this analysis, noise increases of 3 dB along highways, where noise levels are currently, or would be in the future above 66 dB, are considered to be significant, regardless of adjacent land use.

The demographic characteristics of each impacted TAZ portion were aggregated and compared with the regional demographics to determine if there would be any disproportionate impacts to any of the demographic groups identified. This approach identified a marginal disproportionate impact between each income group (see Figure 5.26: Distribution of Households in Highway Noise Areas by Income Category). The lowest-income group will account for 22 percent of the affected population in 2035. There is a 6 percent difference between the lowest- and the highest-income quintiles.

FIGURE 5.26 DISTRIBUTION OF HOUSEHOLDS IN HIGHWAY NOISE AREAS BY INCOME CATEGORY (PLAN VS. BASELINE, 2035)

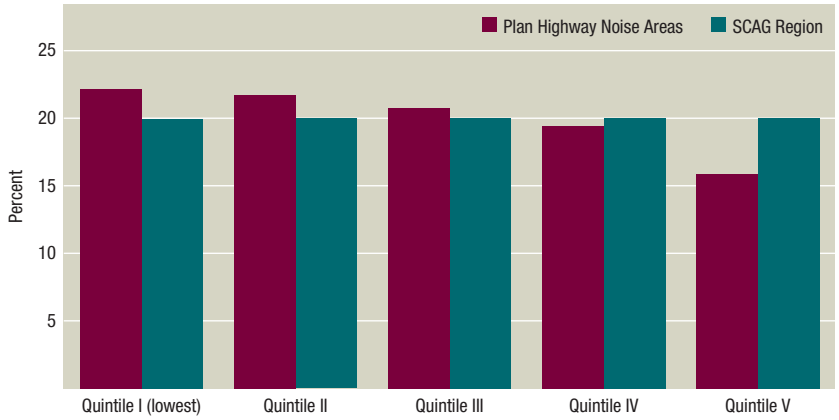
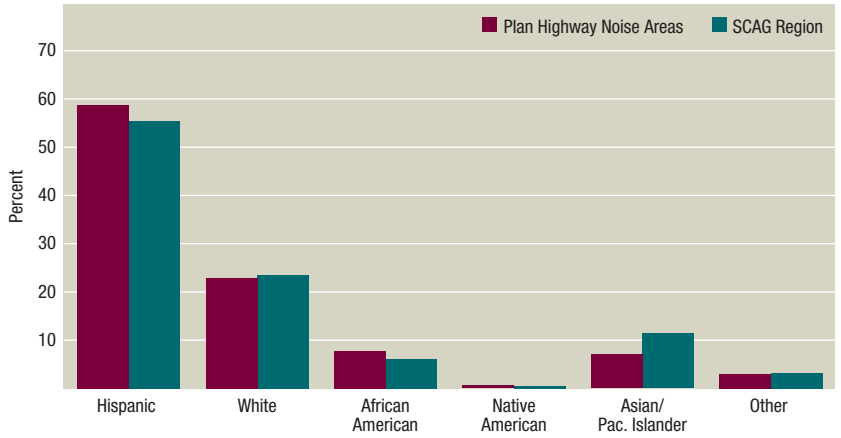


FIGURE 5.27 DISTRIBUTION OF HOUSEHOLDS IN HIGHWAY NOISE AREAS BY ETHNIC/RACIAL CATEGORY (PLAN VS. BASELINE, 2035)



The 2008 RTP also found that minority populations were primarily affected by highway noise impacts. Figure 5.27: Distribution of Households in Highway Noise Areas by Ethnic/Racial Category, indicates that minority populations, specifically Hispanics, would be disproportionately impacted by highway noise. Approximately 59 percent of Hispanics would be residing in highway noise areas by 2035.

The identification of these disparate highway noise impacts at the regional level can be attributed to the issue of incompatible land use, where high-polluting transportation projects, such as freeway construction, airport expansions, or rail extension projects, are located in minority-populated neighborhoods. Corridor-level analysis should be conducted for proposed projects in areas where burdens are concentrated. In addition, the 2008 RTP proposes mitigating these impacts to the extent possible, for example, by requiring new soundwalls where freeway expansions are proposed. Furthermore, the RTP also proposes grade crossings, new technologies, and other clean technologies for goods movement corridors.

NEW SOCIAL EQUITY ELEMENTS

In addition to the performance measures analyzed above, the 2008 RTP environmental justice analysis has undertaken new components. Summarized below are the new initiatives that have either directly or indirectly resulted from the previous environmental justice discussions and comments received.

- Accessibility: In the 2004 RTP environmental justice analysis, SCAG analyzed the percentage of jobs accessible within 45 minutes. The 2008 RTP analysis instead used 30 minutes to calculate accessibility. SCAG determined that the 30-minute travel-time criterion was more indicative of accessibility to the locations of employment services.
- Trips: In the 2008 RTP, both work and non-work trips were analyzed. Previous RTP environmental justice analysis included only work trips. In this analysis, both work and non-work trips were calculated for each TAZ. Incorporating non-work trips into the analysis provides a more accurate determination of allocation of benefits and burdens for each of the performance measures.
- Access to Parks: In response to the comments on the draft 2008 RTP Environmental Justice analysis, SCAG conducted additional and new analysis on accessibility to parks from the perspective of the long-range regional transportation plan.
- County Data: In response to the comments received on the draft 2008 RTP Environmental Justice analysis, SCAG prepared additional and new analysis on a countywide level. This information is included as supplementary information. (See Environmental Justice Report, pages 26 through 28.)

CONCLUSION

The 2008 RTP seeks to identify and address Title VI of the Civil Rights Act and any environmental justice implications of the planning processes and investment decisions. It is critical for SCAG and policy-makers alike to ensure that their transportation programs, policies, and activities serve all segments of the region without generating disproportionately strong and adverse effects.

Economic Impact Analysis

DECLINE IN EMPLOYMENT GROWTH RATE

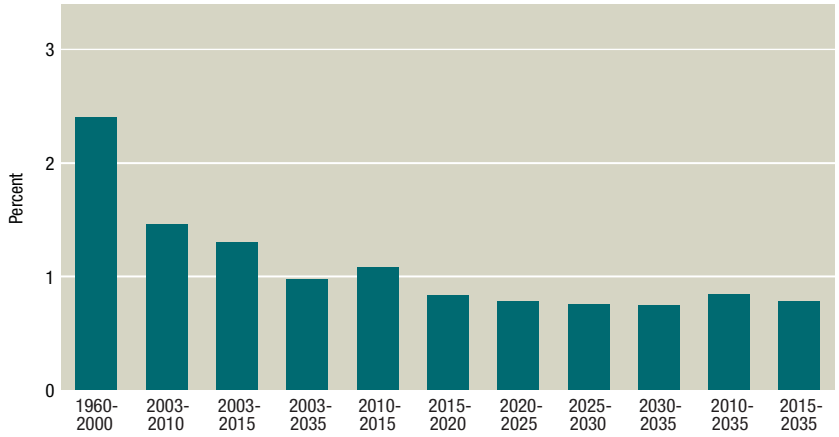
As revealed in current and previous RTP growth forecasts, the region's employment growth will slow down considerably after 2010, compared with historical trends. This sharp and unprecedented decline in job growth as well as underlying changes in the makeup of the labor force in the region are due primarily to a large number of "Baby Boomers" starting to reach the age of retirement. The share of total population and households of elderly and retired persons in the region is projected to double from today. These households are more likely to be headed by minorities (i.e., non-Hispanic White householders).

Unlike the 1960–2000 period, the region will not have a large labor force to support a relatively small retired population. Instead, the region will experience a situation in which a smaller labor force made up of minority households will be supporting a relatively large retired population made up of non-minority households. Increased by immigration, these minority households will be larger, consist of multiple generations, and be headed by younger individuals in the workforce. The size of our labor force as well as employment growth will be sensitive to these changes in demographics.

During the 2003–2035 forecast period, employment growth will be constrained by the size of the anticipated labor force. A major challenge for the region will be to prepare and match younger workers with future jobs. Matching needed skills and education levels with new and especially better-paying future jobs will affect migration trends and immigration levels. These impacts will be felt the most after 2010. During the last 40 years (1960–2000), while the region expanded its job base at an annual compound growth rate of 2.4 percent, the region's job growth rate is now projected to be only 0.84 percent during the 25-year period between 2010 and 2035 (Figure 5.28).

This is about one-third of what was achieved in prior decades. The projected employment growth trends after 2010 suggest an imbalance between the size of the labor force, the retired population that employed workers must support, and the amount of job growth that can be achieved. As a result, the regional economy is expected to face tremendous downward pressure and may not be able to produce the jobs, wealth, and prosperity that it did in prior decades. The economic health of the region is tied to job growth, particularly the creation of high-paying jobs that match the skills and education level of the region's future workforce made up primarily of households headed by minority populations.

FIGURE 5.28 HISTORICAL AND PROJECTED SCAG REGION EMPLOYMENT GROWTH RATES



PUBLIC- AND PRIVATE-SECTOR INVESTMENTS

The 2008 RTP proposes investing $234 billion in 2007 constant dollars (or $412 billion) from public funding sources between 2007 and 2035. In addition, consistent with strategies laid out in previous SCAG RTPs, the 2008 RTP continues to emphasize using innovative financing tools, such as user-based fees and direct investment from the private sector to address challenges limiting transportation revenue growth, constraining transportation investments, and enlarging gaps in unmet transportation demand. The innovative funding revenues which are deemed reasonably available for the 2008 RTP planning horizon are projected to be around $75.6 billion in 2007 constant dollars (or $125 billion in nominal dollars)[11] between 2007 and 2035.

The economic impacts from private-sector-funded projects are different from those funded by tax dollars. Since transportation projects funded by retail sales and gasoline tax revenues are simply extensions of past economic trends, most of their economic impacts are reflected either in the existing employ-

[11] Including additional gas tax and sales tax of $12 billion in 2007 constant dollars

ment base, or in the baseline employment growth forecast. However, enabling private sector engagement in transportation investments through innovative financial arrangements will generate and create new economic activities not experienced before and not captured by past historical trends. As a result, private-sector investments in transportation infrastructure will work to boost regional economic and job growth above the Baseline growth forecast (Economic Impact Analyses for the 1998, 2001, and 2004 RTPs).

The impacts of the RTP expenditures were estimated using the economic input/output model (IMPLAN) and are presented in Table 5.6. The implementation of public-sector-funded infrastructure projects recommended in the 2008 RTP is projected to account for almost 120,000 jobs annually, while projects proposed in the RTP funded through innovative financing would create a net additional 32,800 jobs annually during the planning period.

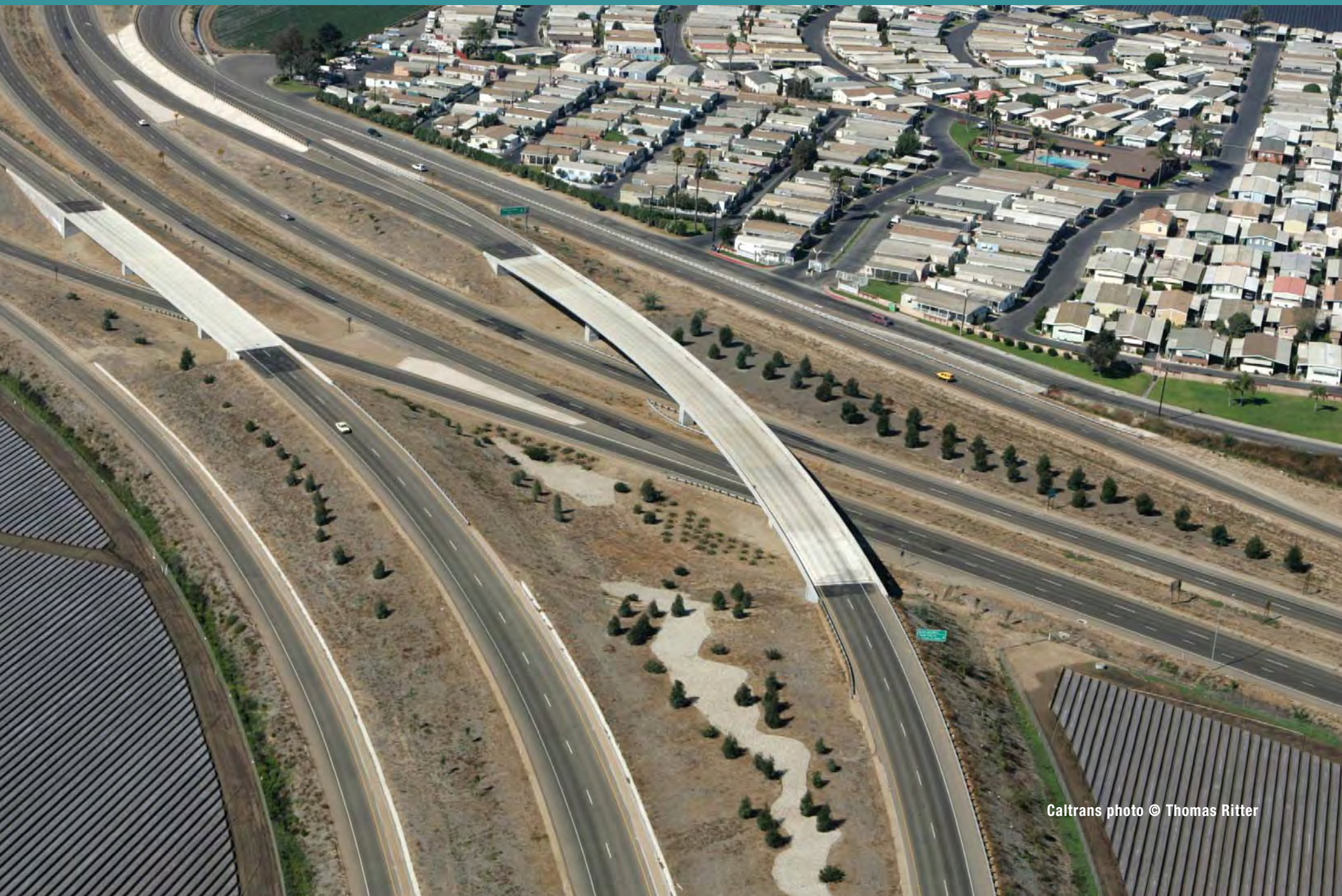


TABLE 5.6 AVERAGE ANNUAL ECONOMIC IMPACTS FOR 2008 RTP (DIRECT, INDIRECT AND INDUCED IMPACTS)

	Average Annual Investment (Millions $2007)	Employment (No. of Jobs)	Output (Millions $2007)	Income (Millions $2007)
Public Sector	$8,540	119,600	$15,300	$4,200
Private Sector	$2,700	32,800	$4,890	$1,220

Source: Draft 2008 RTP & SCAG Input-Output Model

VI. IMPLEMENTATION AND MONITORING



Caltrans photo © Thomas Ritter

This section discusses how SCAG, as the MPO for the six-county region, monitors the implementation of the 2008 RTP and monitors its progress in achieving its stated goals and system performance.

As discussed in Chapter II, the 2008 RTP comes at a time of great challenges. SCAG and its partners believe they have addressed these challenges from a planning perspective. However, as with any plan, its success or failure depends on the execution.

SCAG intends to continue its longstanding role as the monitoring agency for Plan implementation in all its facets.

Implementing the RTP

REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (RTIP)

The RTIP is the tool for the Metropolitan Planning Organizations (MPOs) to monitor and implement their RTP. The RTIP is updated every two years, the most recent being in 2006.

The RTIP provides a listing of projects proposed for implementation in the Region during the six-year period covered by the document. The RTIP projects are described in detail, including the funding amounts allocated by source and fiscal year. RTIP projects are categorized according to the transportation system to which they apply: state highways, local highways, or transit.

The passage of SAFETEA-LU in 2005 has created additional requirements for the RTP and RTIP, including an expanded public participation plan with expanded consultation requirements, the use of visualization techniques, publication of an annual list of obligated projects and the requirement that all regionally significant projects be listed individually.

One of the first steps in RTP implementation is that during each RTIP development cycle, SCAG provides the county transportation commissions (CTCs) and Imperial Valley Association of Governments (IVAG) with RTIP Guidelines. The RTIP Guidelines are used by the counties in the development of their county transportation improvement programs (TIPs). These Guidelines are consistent with SAFETEA-LU and the Metropolitan Transportation Programming final rule: 23 CFR Parts 450 and 500, and 49 CFR Part 613.

The RTP non-motorized, rideshare, ITS, and TDM investments were developed in consultation with the county transportation commissions and the IVAG. These investments are annualized in the RTIP Guidelines in order to provide the county transportation commissions and IVAG with average yearly investments. The investments are reflected in the RTIP Guidelines by category in order to facilitate monitoring and ensure RTP implementation.

The RTIP Guidelines also contain the RTP constrained project listing. The counties need to program these projects for initiation within an appropriate time frame to ensure that they become operational during the time frame indicated in the RTP.

The projects identified within the RTP and RTIP must be financially constrained. The RTIP Guidelines provide the RTP funding forecasts for the programming years associated with the RTIP cycle under development. The CTCs and IVAG should program within the RTP forecasts. If a county programs more in project costs than can be accommodated by the RTP financial forecasts, then appropriate justification must accompany the county TIP documentation and be accepted by SCAG prior to TIP approval.

CONGESTION MANAGEMENT PROCESS

The Congestion Management Process as implemented in the SCAG region provides for a comprehensive and integrated transportation planning process that links together the RTP, RTIP, and county-level Congestion Management Programs.

BACKGROUND

The United States Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) requires the development, establish-

ment and implementation of a Congestion Management Process which is fully integrated into the regional planning process.

The Federal Highway Administration defines the congestion management process as a "systematic approach required in transportation management areas (TMAs) that provides for effective management and operation, based on a cooperatively developed and implemented metropolitan-wide strategy, of new and existing transportation facilities eligible for funding under Title 23 U.S.C. and Title 49 U.S.C., through the use of operational management strategies."

SCAG's Congestion Management Process is a comprehensive strategy designed to relieve traffic congestion and maintain high levels of service on roadways within the Southern California region. SCAG has facilitated efforts by counties and subregions to develop County-level Congestion Management Programs (CMPs) in cooperation with regional and subregional transportation providers, local governments, Caltrans, and the South Coast Air Quality Management District.



In the SCAG region, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties are contained within Transportation Management Areas (TMAs). The Federal Highway Administration (FHWA) defines TMAs as the following:

1. All urbanized areas over 200,000 in population, and any other area that requests such designation
2. An urbanized area with a population over 200,000 (as determined by the latest decennial census) or other area when TMA designation is requested by the governor and the MPO (or affected local officials), and officially designated by the administrators of the FHWA and the FTA. The TMA designation applies to the entire metropolitan planning area(s) (23CFR500)

The County Transportation Commission in each county also functions as a Congestion Management Agency (CMA) under California regulations. To meet the federal Congestion Management Process requirements, SCAG and the county CMAs have come together to develop a Congestion Management Process for the region. Under California law, the Congestion Management Programs (CMPs) are prepared and maintained by the respective CMAs:

- The Los Angeles County Metropolitan Transportation Authority (LACMTA)
- The Orange County Transportation Authority (OCTA)
- The Riverside County Transportation Commission (RCTC)
- The San Bernardino Associated Governments (SANBAG)
- The Ventura County Transportation Commission (VCTC)

With the exception of small portions of Riverside and San Bernardino Counties, all counties within the TMA are designated as ozone non-attainment areas. SCAB covers the urbanized portions of Los Angeles, Orange, Riverside, and San Bernardino Counties.

Federal funds may not be programmed in the carbon monoxide and ozone non-attainment areas of the Transportation Management Areas (TMAs) for any project that will result in a significant increase in single-occupant vehicle (SOV) capacity unless that project is addressed through a CMP.

The CMPs work in collaboration with the AQMP in several areas, but most significantly through the TCMs. Most TCM projects identified in the RTIP are designed to help relieve congestion at the local level. Thus, implementation of the AQMP helps local governments tackle congestion, which, in turn, reduces emissions from idling vehicles or the number of vehicles traveling on congested roadways, and also helps maintain service level standards. At the same time, the CMP process provides local governments with a mechanism to contribute to the regional effort toward attaining the NAAQS.

REGIONAL CONGESTION MANAGEMENT ELEMENTS

In compliance with the sections of the Metropolitan Planning Regulations [23 U.S.C. 134 and 49 U.S.C. 5303- 5305], SCAG's Congestion Management Process comprises the following Regional Congestion Management Elements:

- The Regional Transportation Plan (RTP)
- The counties' Congestion Management Programs (CMPs)
- The Regional Transportation Improvement Program (RTIP)

The functionality of each element is described in the following sections.

Regional Transportation Plan (RTP)

SCAG's RTP establishes overall long-term mobility policies for the movement of people and goods, including congestion relief strategies for all regionally significant facilities and activities (projects and programs).

Congestion Management Program (CMP)

There are five CMAs in the SCAG region and each develops a CMP for their respective county. The degree of urbanization varies from one county to another and consequently the magnitude of congestion will also vary. The CMPs' efforts have been brought together on a regionwide basis and integrated into the SCAG regional planning process.

SCAG's Regional Council and the Regional Transportation Agencies Coalition ensure consistency between the county CMPs and SCAG's RTP and RTIP, through project implementation.

In 1995, SCAG and the CMAs developed the following criteria to ensure consistency and compatibility between the regional transportation planning process and the county congestion management process:

- CMP consistency with the current RTP
- Interregional (inter-county) coordination between the CMPs' goals and objectives
- Consistency between countywide model/database and SCAG's model/database
- All regionally significant CMP projects are to be modeled and incorporated into SCAG's Regional Transportation Modeling System (network)

The purpose of these criteria is to hold each county CMP responsible for the goals and objectives of SCAG's RTP. Compliance with the above criteria is essential, particularly for CMP projects that are going to be programmed into the SCAG RTIP.

TABLE 6.1 CMPS IN THE SCAG REGION

County	Congestion Management Agency (CMA)	Congestion Management Program
Los Angeles	Los Angeles County Metropolitan Transportation Authority (LACMTA)	2004 Congestion Management Program for Los Angeles County (Updated Statement of Conformity issued in 2007)
Orange	Orange County Transportation Authority (OCTA)	2007 Orange County Congestion Management Program (November 2007)
Riverside	Riverside County Transportation Commission (RCTC)	2006 Riverside County Congestion Management Program
San Bernardino	San Bernardino Associated Governments (SANBAG)	2005 Congestion Management Program for San Bernardino County
Ventura	Ventura County Transportation Commission (VCTC)	2005 Ventura County Congestion Management Program

All county CMPs share the same goal of reducing congestion and applying congestion relief strategies. However, there are different priorities in the selection of related strategies based on the needs of each county. Therefore, each county CMP differs in form and local procedure. By state statute, all CMPs must perform the same functions outlined below and must be consistent with the federal requirements.

Highway Performance - Each CMA monitors the performance of an identified highway system. This allows each county to track how their systems, and their individual components, are performing in comparison to established standards, and how performance changes take place over time.

MultiModal Performance - In addition to highway performance, each CMP contains an element to evaluate the performance of other transportation modes, including transit.

Transportation Demand Management (TDM) - Each CMP contains a TDM component geared to reducing travel demand and promoting alternative transportation methods.

Land-Use Programs and Analysis - Each CMP incorporates a program to analyze the impacts of local land-use decisions on the regional transportation system.

Capital Improvement Program (CIP) - Using data and performance measures developed through the activities identified above, each CMP develops a CIP. This becomes the first step in developing the County TIP. Under state law, projects funded through the Regional Transportation Improvement Program (RTIP) must first be contained in the CMP.

Deficiency Plan – Despite the above-stated efforts, when unacceptable levels of congestion occur, the respective CMP contains a set of "deficiency plan"



provisions to address the problems. Deficiency plans may be developed for specific problem areas or on a countywide-system basis. Projects implemented through the deficiency plan must, by statute, include both mobility and air quality benefits. In many cases, the deficiency plan captures the benefits of the transportation projects beyond the SCAG RTIP such as non-federally funded/non-regionally significant projects.

Information on the CMP activities and resulting data are updated on a biennial basis by each CMA and supplied to SCAG and the respective air quality management district.

Regional Transportation Improvement Program (RTIP)

All federally funded congestion relief strategies (projects and programs) are programmed into the RTIP in the SCAG region. Under state law, the CMP projects must be incorporated into the RTIP in order to receive federal and state funds. Under federal law, the RTIP must be updated every four years for funding. Note that the CMP documents list additional projects which are 100% locally funded and not regionally significant, such as the transportation demand management (TDM) and bike lane projects, as these also cumulatively help mitigate congestion.

In non-attainment and maintenance areas, the RTIP projects as a whole, including congestion relief projects, must fulfill the Transportation Conformity requirements. In project-level analysis, the projects requiring federal action (funding or approval) are subject to Environmental Impact Study (EIS) through the National Environmental Policy Act (NEPA). This is an evaluation and analysis of the alternatives. The selected alternative will then be incorporated into the RTP and RTIP for implementation.

Regionally Significant Transportation Investment Studies

Within the context of regional transportation planning, the first step toward strategy or program development is the Regionally Significant Transportation



Investment Study (RSTIS), or a corridor feasibility study of alternatives including a National Environmental Policy Act (NEPA) "purpose and need" statement and preliminary environmental documentation.

SCAG, in cooperation with other stakeholders, will approve the initiation and scope of an RSTIS. Before a project may be included in the RTIP for construction, the project must be one of the alternatives in a completed RSTIS, and must have a completed project initiation document and cleared environmental documents.

Regionally significant alternatives must be evaluated by the RTP performance measures in order to be considered for incorporation in the RTP. RSTIS analyses are currently being performed for corridors in the region, including the South Orange County Major Investment Study and the Orange County/Los Angeles Intercounty Transportation Study. The 2008 RTP includes alternative modes and technologies (intelligent transportation vehicle and highway systems), general alignment, number of lanes, the degree of demand manage-

ment and operating characteristics. Furthermore, an RSTIS is required to evaluate the effectiveness and cost-effectiveness of alternatives in attaining local, regional, state and national goals and objectives. This analysis considers the direct and indirect costs (of capital, operating and maintenance, and rights-of-way) of alternatives; benefits or impacts of mobility improvements; air quality requirements; social, economic and environmental impacts, including environmental justice; safety, operating efficiencies; financing (federal, state and private sources); energy consumption; and public outreach. The results of the RSTIS help shape decisions by SCAG, in cooperation with participating public and private organizations, on the design and scope of the investment for the RTP. The preferred alternative of an RSTIS must meet the performance and financial criteria established by the RTP, and it must be approved by the Regional Council before being included in the RTP and RTIP.

An RSTIS is eligible for funds authorized under Sections 8, 9 and 26 of the Federal Transit Act, state planning funds, as well as planning and capital funds appropriated under Title 23, United States Code.

RSTIS or other analyses are appropriate when regionally significant investments in the RTP have not developed sufficient environmental analysis, design concept and scope (mode and alignment not fully determined). In cases requiring further analysis, the RTP may stipulate either a set of assumptions concerning the proposed improvement or a no-build condition pending the completion of a corridor or sub-area analysis. In either case, the RTP provides enough detail to provide a plan conformity determination.

Monitoring Our Progress

As the designated MPO for the six-county region, SCAG monitors transportation plans, projects and programs for consistency with regional plans. SCAG also monitors the performance of the transportation system. This performance monitoring is especially important to the planning process for future RTPs. It is impossible to solve our regional transportation problems unless we are able to identify and measure them effectively.

SCAG prepares the RTP using performance-based measures that help public officials to better analyze transportation options and trade-offs and make informed decisions. By examining the performance of existing systems over time, SCAG monitors trends and identifies regional transportation needs that may be considered in the RTP. Performance measurements help clarify the link between transportation decisions and eventual outcomes, thereby improving the discussion of planning options and communication with the public. This also helps determine which improvements provide the best opportunities for maximizing the system's performance within the defined constraints.

SCAG has developed performance measures (see Chapters I and V) for the regional transportation system. New tools are also being developed that will help SCAG monitor system performance over time. The Freeway Performance Measurement System (PeMS), developed by UC Berkeley, Caltrans, and the California Partners for Advanced Transit and Highways (PATH), has the ability to measure freeway speeds, delay, and reliability for the regional freeway system. SCAG monitors a number of performance measures through a benchmarking process in the annual State of the Region report.



Transportation planning for the region requires continually improved information on the condition and utilization of the transportation system. Special reports are required periodically from SCAG to show the condition of the highway infrastructure and to monitor the region's overall traffic. The Highway Performance Monitoring System (HPMS) is a federally mandated program designed by the Federal Highway Administration (FHWA) to assess the performance of the nation's highway system. Under the Clean Air Act, SCAG is also required to report periodically on vehicle miles traveled in each air basin to determine whether traffic growth is consistent with the projections on which the State Implementation Plans (SIPs) are based.

The HPMS is one of the components of an Internet-based transportation system currently under development, the Regional Transportation Monitoring Information System (RTMIS). RTMIS is the source for real-time and historical transportation data collected from different local and regional transportation agencies as well as from private data sources. Based on a GIS mapping system, RTMS will be the main monitoring system for collection and distribution of highway and transit data, local and regional traffic information and activities, as well as hosting the subregional transportation monitoring programs.

The following sections outline several of the significant tools used by SCAG to monitor regional progress in advancing the 2008 RTP.

RTIP DATABASE MANAGEMENT

To manage the RTIP process efficiently, SCAG has developed a web-based RTIP database. The new RTIP database serves as a listing for projects in the RTIP, as well as a mechanism for monitoring implementation of these projects. The new database includes a mapping component that allows the CTCs to view all the RTIP projects that have been modeled. The new database will play a pivotal role in the creation of an audit trail for programmed projects. Moreover, it will also make it easier to submit the draft and final RTIP lists to Caltrans and the California Transportation Commission for their review and approval. The CTCs, Imperial Valley Association of Governments and SCAG staff are responsible for inputting this data into the RTIP database. Once the SCAG Regional Council has approved the RTIP, the data is then transmitted to Caltrans for incorporation into the statewide database, or California Transportation Improvement Program System (CTIPS).

CONFORMITY

In federally designated non-attainment or maintenance areas, specific monitoring procedures and tests for conformity are required under the federal Transportation Conformity Rule. At the time of conformity determination, the RTIP must be consistent with the RTP. At any given time, there is only one federally approved and conforming RTP and RTIP in place as the operating documents. During project implementation, sponsor agencies must implement only those projects that are consistent with the conforming RTIP and RTP. The project design concept and scope also must be consistent with those reflected in the conforming RTIP.

SCAG must be informed of any projects that are regionally significant and modeled, regardless of their funding sources. Project sponsors must also inform SCAG (as the region's MPO) of any delay in implementing any TCM projects that are included in an approved SIP. In association with the CTCs and the TCWG, SCAG must report on the timely implementation of TCMs. The Timely Implementation Report is provided in the 2008 RTP Conformity Report. If a project cannot be implemented, the sponsor agency must officially substitute or replace the affected TCM project.

Additionally, SCAG monitors legal, legislative, and election processes that may impact the transportation conformity requirements, the implementation of any TCM or regionally significant projects. SCAG informs the sponsor agency of required actions to address any changes that may have been made.

SCAG's TCWG and Modeling Task Force are two official forums used for interagency consultation. There may be additional ad hoc forums, if needed, to facilitate the required course of action.

HIGHWAY PERFORMANCE MONITORING SYSTEM (HPMS)

HPMS is used as a transportation monitoring and management tool to determine the allocation of federal aid funds, to assist in setting policies and to forecast future transportation needs as it analyzes the transportation systems' length, condition and performance. Additionally, HPMS is used to provide data to the Environmental Protection Agency (EPA) to assist in monitoring air quality conformity, and its data is used in support of the Biennial Report to Congress on the Status of the Nation's Highways. In California, Caltrans implements the program annually. SCAG's responsibility is to assist Caltrans in collecting data from local jurisdictions, and in the distribution, collection and administration of all HPMS survey packages in the six-county region.

VMT, EMISSION AND CONGESTION REPORT

Six years after the enactment of the Clean Air Act Amendments of 1990, any state that contains serious and worse ozone non-attainment areas, or moderate and/or serious carbon monoxide non-attainment areas, is required to demonstrate whether current aggregate VMT, aggregate vehicle emissions, congestion levels and other relevant parameters are consistent with those used for the area's demonstration of attainment. As the region's MPO, SCAG is responsible for forecasting and tracking VMT, emissions and congestion, and submitting these reports to the ARB. VMT reports for ozone non-attainment areas are submitted every three years.

TRANSIT SYSTEM PERFORMANCE ASSESSMENT

Implementation of the RTP requires changes in the operating practices of transit agencies and the integration of the three tiers of transit into a single functioning system. The process of integration is the responsibility of the operators. SCAG will be evaluating the performance of selected operators to provide feedback and to transfer applicable lessons to other operators in the region. The application of advanced transportation technologies applied to the scheduling and routing of transit will be evaluated.

INTERGOVERNMENTAL REVIEW

Under federal law, SCAG is designated as the Regional Clearinghouse for review of all submitted plans, plan changes, projects and programs for consistency with adopted regional plans and policies. Regionally significant transportation projects reviewed for consistency with regional plans are defined as: construction or expansion of freeways; state highways; principal arterials; routes that provide primary access to major activity centers, such as amusement parks, regional shopping centers, military bases, airports and ports; goods movement routes, including both truck routes and rail lines; intermodal transfer facilities, such as transit centers, rail stations, airports and ports; and fixed transit routes, such as light and heavy rail and commuter rail. Any project involving transportation improvements is reviewed to determine whether such improvements are included in the RTIP.

THE STATE OF THE REGION

SCAG develops and publishes the annual State of the Region Report, which monitors the primary economic and transportation trends in Southern California and compares them to other major metropolitan regions in the country. The report helps to set goals for future RTP updates and provides indicators of regional progress from previous RTPs.

Each report presents the major socioeconomic trends in the region, including population, employment, wages, and ethnic composition. It then presents a Report Card for a number of critical indicators, including air quality, modal share, transit ridership, congestion, and income based upon the actual trend and comparison results. The latest update of the Report will be released by the Regional Council in December 2007 and can be accessed via the SCAG website.

OTHER RELATED EFFORTS

There are other efforts that SCAG partner agencies undertake that provide assistance with the overall monitoring of the RTP implementation. Data collected through these efforts can be used by agencies to make more informed decisions. These efforts include:

Caltrans Highway Congestion Monitoring Program (HICOMP) – Caltrans compiles congestion information in an annual report that illustrates the trends in congestion in each Caltrans District. The report includes congestion magnitude, extent, and duration for the peak travel periods.

Caltrans State Highway Operations and Protection Program (SHOPP) 10-Year Plan – Caltrans updates their 10-year SHOPP Plan periodically, focusing on pavement conditions, safety, and operations. The Plan includes the programmed portion of the SHOPP as well as planned investments over a ten-year horizon.

County-Level Congestion Management Program (CMP) Monitoring – County Transportation Commissions monitor cities' performances regarding service levels on CMP systems and opportunities to mitigate the impacts of new development on the transportation system.

County Long-Range Plans – Several County Transportation Commissions have developed 20-year Long-Range Plans that serve as input to the subsequent RTP update. These plans are the blueprints for investments and expected performance for the county.

Transit Operator Short-Range Transit Plans – Transit operators also develop and publish short-range transit plans that define strategies and actions over the short term.

Transit Operators' Performance Reports – Transit operators compile various performance data and submit their reports to the Federal Transit Administration (FTA) annually. The FTA then compiles all the data provided by transit operators and stores them in the National Transit Database (NTD). The NTD provides a wealth of data that can be used to compare trends over time and among operators throughout the United States.

Transit Operators' Triennial Audits – Transit operators undergo an audit every three years to ensure that they comply with state and federal regulations. The audit findings and recommendations are published and reviewed by Caltrans and other agencies.

Regionally Significant Transportation Improvement Studies (RSTIS) (formerly Major Investment Studies) Project sponsors develop these studies. SCAG monitors and assists the projects to ensure communication between the sponsors and SCAG, and to assure compliance with the RTP.



VII. FUTURE CONNECTIONS: THE STRATEGIC PLAN



The RTP strategies discussed in Chapter III represent the region's collective vision for addressing our transportation needs within the constraints of committed, available, or reasonably available revenue sources. Despite the substantial commitments contained in the RTP, this level of investment does not meet the overall needs identified through the RTP development process. If we truly want to address the needs set forth in this RTP, then we must look toward additional strategies and investments to get us there. Often this will entail controversial and difficult choices that will push the envelope and test the boundaries of what is politically acceptable. For now, these elements are contained in the Strategic Plan with the recognition that they merit further study and that, over time and with further consensus building, these programs and policies may move forward into the constrained RTP.

This chapter provides a brief illustrative overview of the additional strategies and investments that the region would pursue if additional funding were to become available, and after further consensus building to solidify commitment around specific projects and policies. It is envisioned that future updates or amendments to the RTP would draw from the projects contained in the Strategic Plan; exceptions would be handled on a case-by-case basis. While there is no funding strategy attached to the Strategic Plan, this chapter discusses additional potential funding sources that merit further study and evaluation.

Unfunded System Preservation and Operations Needs

Beyond the investments proposed in the 2008 RTP, there is a shortfall of $24 billion in highway system preservation, and a shortfall of $8 billion in arterial and transit system preservation, through 2035. With the recognition that the costs of deferred maintenance could grow exponentially over time, investment in preservation should be given priority for new funding sources beyond those identified in the 2008 RTP.

Additionally, SCAG identified a shortfall of approximately $6.7 billion in highway operations needs, and $1.3 billion in regionally significant arterial and transit operations needs, through 2035. SCAG, Caltrans, and our transportation planning partners will continue to evaluate corridor-level performance, develop corridor system management plans, and incorporate the resulting recommendations into future Plans and Programs.

Unfunded Capital Improvements

There are approximately $273 billion in additional capital investment needs above what are identified in the financially constrained RTP. These projects address important transportation corridor needs in the region, but still face significant challenges in terms of local consensus on a preferred strategy, funding priority, or both, before potential inclusion in the RTP. For example, the proposed Orangeline project faces significant challenges in terms of right-of-way availability, funding commitment, and stakeholder consensus. In recognition of the regional benefits the project may provide, it is being included in the Strategic Plan until such issues have been resolved.

Regionally significant major corridor improvements in the Strategic Plan are identified in Table 7.1. A more complete list is contained in the RTP Project List report available at www.scag.ca.gov/rtp2008.

Strategic Finance

Recognizing that new sources of revenue over and above those already identified in the RTP are required to help fund these unmet needs, SCAG will initiate a comprehensive study of congestion pricing strategies over the next year. A regionwide congestion pricing strategy can be structured to help the region meet its transportation demand management and air quality goals while providing a reliable and dedicated revenue source. The pricing mechanism could allow users of the transportation system to know the true cost of their travel, resulting in informed decision-making and more efficient use of the system. Potential pricing strategies can include a regional vehicle-miles-traveled fee



and/or a regional high-occupancy toll lane network. While promising, these strategies still face a number of significant hurdles—there is currently no legislative authority to implement such strategies, and there is no regional entity that exists to administer or implement such a comprehensive program. SCAG's study will attempt to address some of these hurdles by evaluating the feasibility of these strategies and coalescing regional consensus for potential input into the next update of the RTP.

In addition to SCAG's regional congestion pricing initiative, a number of local efforts to study additional transportation revenues are underway or may be in the near future. The Los Angeles County Metropolitan Transportation Authority (MTA) is evaluating the feasibility of a Congestion Mitigation Fee as part of a proposed restructuring of its Congestion Management Program (CMP). If enacted, the fee would be imposed on new development and would generate new revenue to assist MTA in addressing congestion caused by growth. In 2004, the voters in Ventura County were asked to approve a local sales tax measure for transportation. While the voters did not approve the sales tax increase, it remains a popular option for the region's counties to generate a significant amount of revenues dedicated to transportation. All of the other counties in the SCAG region have a local sales tax measure dedicated to transportation.

TABLE 7.1 MAJOR STRATEGIC PLAN PROJECTS

Strategic Plan Project Description
• Dedicated Lanes for Clean-Technology Trucks on an East-West Corridor connecting the Ports of LA/LB to and through the Inland Empire (I-710 to I-15)
• Dedicated Lanes for Clean-Technology Trucks on I-15 (East-West Corridor to Barstow)
• US-101 HOT Lanes (SR-23 to SR-134/SR-170)
• CETAP Riverside County to Orange County (Corridor B from I-15/Mid-County Pkwy to SR-133/SR-241)
• Purple Line Extension to Century City and Santa Monica
• Gold Line Extension to Ontario Airport
• Metrolink and LOSSAN Strategic Plans
• Santa Paula Branch Line
• High-Speed Regional Transport - system extensions to Palmdale, Victorville, Coachella Valley, Imperial, Orange County, San Diego
• High-Speed Regional Transport - California High-Speed Rail Authority (serving the SCAG region beyond the Union Station-Anaheim segment in the financially constrained RTP)
• High-Speed Regional Transport - California-Nevada Maglev - Ontario Airport to Nevada State Line
• Orangeline High-Speed Transit (Orange County - Union Station - Santa Clarita - Palmdale)

Corridor Preservation

For those corridor projects identified in the Strategic Plan, right-of-way preservation should be undertaken to begin laying the groundwork for advancing these long-range improvements. The SCAG Region is pursuing an innovative, environmentally sensitive approach to considering future development and transportation projects. This approach envisions that transportation options

will be developed with consideration for environmentally sensitive land uses and habitat issues as part of the planning and design criteria. It would involve early and active involvement by all stakeholders at the local, state, and federal levels.

This approach draws on the Community and Environmental Transportation Acceptability Process (CETAP) undertaken in Riverside County, which serves as a template for other agencies and jurisdictions seeking to preserve rights-of-way for long-range transportation needs. The four CETAP corridors, two intra-county corridors—the Mid-County Parkway and the Winchester-Temecula Corridor—and two inter-county corridors—the Riverside County-Orange County Corridor (Corridor A) and the Moreno Valley-San Bernardino Corridor—are included in the financially constrained RTP.

As Riverside County has shown, it is important to identify and preserve transportation corridors needed to expand or enhance transportation for future generations. Local governments will find it difficult to obtain optimal locations for these corridors unless efforts to preserve them are made early. The American Association of State Highway and Transportation Officials (AASHTO) Report on Corridor Preservation states that early efforts provide the following benefits:

- prevent inconsistent development
- minimize or avoid environmental, social and economic impacts
- prevent the loss of desirable corridor locations
- allow for the orderly assessment of impacts
- permit orderly project development, and
- reduce costs

Planners and policy-makers should start preparing strategies for preserving corridors now to prevent losing rights-of-way needed for transportation beyond the year 2035. Rights-of-way preservation is a reasonable concern, particularly in areas where development may block a long-range corridor. More opportunities to capitalize on preservation are available in less-urban areas,



where local governments have an opportunity to obtain available land for new transportation facilities.

The first step in this kind of planning is to identify potential long-range corridors and determine if there is a need to preserve them. This will require intergovernmental coordination and should include a funding component. Next, criteria to evaluate and prioritize the selected corridors must be developed. Once a corridor is selected, environmental studies will be needed. Traditional preservation techniques include purchasing land or using government statutes to place a corridor alignment on a general plan land-use map. Other state and federal funds can be used to assist in acquiring land for long-range corridors.

GLOSSARY

AASHTO American Association of State Highway and Transportation Officials – A nonprofit, nonpartisan association representing highway and transportation departments in the 50 states, the District of Columbia and Puerto Rico.

AB 32 Assembly Bill 32 – Signed into law on September 26, 2006, it requires that the state's global warming emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on global warming emissions that will be phased in starting in 2012. In order to effectively implement the cap, AB 32 directs the California Air Resources Board (CARB) to develop appropriate regulations and establish a mandatory reporting system to track and monitor global warming emissions levels.

AB 169 Assembly Bill 169 – Provides for the sixteen federally recognized tribes in the SCAG Region to join the SCAG Joint Powers Authority (JPA) to participate in the Southern California Association of Governments by voting at the SCAG General Assembly.

ACE Alameda Corridor East – A 35-mile corridor extending through the San Gabriel Valley between East Los Angeles and Pomona and connecting the Alameda Corridor to the transcontinental railroad network.

ADA Americans with Disabilities Act of 1990 – Guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services, and telecommunications. It prescribes federal transportation requirements for transportation providers.

AJR Assembly Joint Resolution No. 40 – Introduced on August 23, 2007, the Resolution calls upon the governor to declare a state of emergency in respect to the air quality health crisis in the South Coast Air Quality Basin related to emissions of PM2.5, and to direct steps necessary to address the emergency.

ANCA Federal Airport Noise and Capacity Act of 1990 – Establishes a national aviation noise policy that reviews airport noise and access restrictions on operations for Stage 2 and Stage 3 aircraft.

Antelope Valley AQMD Antelope Valley Air Quality Management District – The air pollution control agency for the portion of Los Angeles County north of the San Gabriel Mountains.

AQMP Air Quality Management Plan – Regional plan for air quality improvement in compliance with federal and state requirements.

ARB Air Resources Board – Refer to CARB, California Air Resources Board.

ATIS Advanced Traveler Information Systems – Technology used to provide travelers with information, both pre-trip and in-vehicle, so they can better utilize the transportation system.

ATMS Advanced Transportation Management Systems – Technology used to improve the operations of the transportation network.

AVO Average Vehicle Occupancy – Calculated by dividing the total number of travelers by the total number of vehicles.

Base Year The year 2003, used in the RTP performance analysis as a reference point for current conditions.

Baseline Future scenario which includes only those projects that are: existing, undergoing right-of-way acquisition or construction, come from the first year of the previous RTP or RTIP, or have completed the NEPA process. The Baseline is based upon the adopted 2006 RTIP. The Baseline functions as the "No Project" alternative used in the RTP Program EIR.

BLS Bureau of Labor Statistics – The principal fact-finding agency for the federal government in the broad field of labor economics and statistics.

BNSF Burlington Northern and Santa Fe Railway Company.

BRT Bus Rapid Transit – Bus transit service that seeks to reduce travel time through measures such as traffic signal priority, automatic vehicle location, dedicated bus lanes, limited-stop service, and faster fare collection policies.

BTA Bicycle Transportation Account – Provides state funds for city and county projects that improve safety and convenience for bicycle commuters.

CAA Clean Air Act (CAA) – 1970 federal act that authorized EPA to establish air quality standards to limit levels of pollutants in the air. EPA has promulgated such standards (or NAAQS) for six criteria pollutants: sulfur dioxide (SO2), nitrogen dioxide (NO2), carbon monoxide (CO), ozone, lead, and particulate matter (PM10). All areas of the United States must maintain ambient levels of these pollutants below the ceilings established by the NAAQS; any area that does not meet these standards is a "non-attainment" area. States must develop SIPs to explain how they will comply with the CAA. The act was amended in 1977 and again in 1990.

CAFR Comprehensive Annual Financial Report – Official annual financial report that encompasses all funds and financial components associated with any given organization.

Cal B/C Model California Life-Cycle Benefit/Cost Analysis Model (Cal-B/C) – Was developed for the California Department of Transportation (Caltrans) as a tool for benefit-cost analysis of highway and transit projects. It is an Excel (spreadsheet) application structured to analyze several types of transportation improvement projects in a corridor where there already exists a highway facility or a transit service (the base case).

Caltrans California Department of Transportation – State agency responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as that portion of the Interstate Highway System within the state's boundaries.

CARB California Air Resources Board – State agency responsible for attaining and maintaining healthy air quality through setting and enforcing emissions standards, conducting research, monitoring air quality, providing education and outreach, and overseeing/assisting local air quality districts.

Catalytic Demand Additional aviation demand that is created by companies that locate in the proximity of expanding airports with developable land around them, to reduce airport ground access time and costs for their employees and clients. Catalytic demand is greatest for large hub airports, particularly international airports.

CEHD Community, Economic and Human Development Committee – A SCAG committee that studies the problems, programs and other matters which pertain to the regional issues of community, economic and human development and growth. This committee reviews projects, plans and programs of regional significance for consistency and conformity with applicable regional plans.

CEQA California Environmental Quality Act – State law providing certain environmental protections that apply to all transportation projects funded with state funds.

CETAP Community Environmental and Transportation Acceptability Process – Part of the Riverside County Integrated Project that is examining where to locate possible major new multimodal transportation facilities to serve the current and future transportation needs of Western Riverside County, while minimizing impacts on communities and the environment.

CHSR California High-Speed Rail Authority – Agency responsible for planning, designing, constructing and operating a state-of-the-art high-speed train system in California.

CIP Capital Improvement Program – Long-range strategic plan that identifies capital projects; provides a planning schedule and financing options.

CMAQ Congestion Mitigation and Air Quality Program – Federal program initiated by ISTEA to provide funding for surface transportation and other related projects that contribute to air quality improvements and reduce congestion.

CMIA Corridor Mobility Improvement Account – These funds would be allocated by the California Transportation Commission to highly congested travel corridors in the state. Projects in this category must be a high priority; be able to start construction by 2012; improve mobility in a highly congested corridor by improving travel times and reducing vehicle hours of delay; connect the State Highway System; and improve access to jobs, housing, markets and commerce.

CMP Congestion Management Program – Established by Proposition 111 in 1990, requires each county to develop and adopt a CMP that includes highway and roadway system monitoring, multimodal system performance analysis, transportation demand management program, land-use analysis program and local conformance.

CNSSTC California-Nevada Super Speed Train Commission – Public-private Partnership developed to promote a high-speed link between California and Nevada.

CO Carbon monoxide – A colorless, odorless, poisonous gas formed when carbon in fuels is not burned completely. It is a byproduct of highway vehicle exhaust, which contributes about 60 percent of all CO emissions nationwide.

COG Council of Governments – Under state law, a single or multicounty council created by a joint powers agreement.

COMPASS/Growth Visioning A planning process guided by input from the public and initiated by SCAG to develop a regional strategy for addressing future growth in Southern California.

Congestion Management Process Congestion Management Process – Systematic approach required in transportation management areas (TMAs) that provides for effective management and operation, based on a cooperatively developed and implemented metropolitan-wide strategy, of new and existing transportation facilities eligible for funding under title 23 U.S.C. and title 49 U.S.C., through the use of operational management strategies.

Congestion Pricing User fee imposed on vehicles during peak demand periods on congested roadways.

Constant Dollars Dollars expended/received in a specific year adjusted for inflation/deflation relative to another time period.

Corridor In planning, a broad geographical band that follows a general directional flow or connects major sources of trips. It may contain a number of streets and highways, and transit lines and routes.

CTC California Transportation Commission – A nine-member board appointed by the governor to oversee and administer state and federal transportation funds and provide oversight on project delivery.

CTIPS California Transportation Improvement Program System – A project programming database system used to efficiently and effectively develop and manage various transportation programming documents as required under state and federal law.

CTP California Transportation Plan – A statewide, long-range transportation policy plan that provides for the movement of people, goods, services, and information. The CTP offers a blueprint to guide future transportation decisions and investments that will ensure California's ability to compete globally, provide safe and effective mobility for all persons, better link transportation and land-use decisions, improve air quality, and reduce petroleum energy consumption.

CVO Commercial Vehicle Operations – Management of commercial vehicle activities through ITS.

Deficiency Plan Set of provisions contained in a Congestion Management Plan to address congestion, when unacceptable levels of congestion occur. Projects implemented through the Deficiency Plan must, by statute, have both mobility and air quality benefits.

DTIM Direct Travel Impact Model – A vehicle emissions forecasting model.

EDF Environmental Defense Fund – A national nonprofit organization that seeks to protect the environmental rights of all people, including future generations.

EIR Environmental Impact Report – An informational document, required under CEQA, which will inform public agency decision-makers and the public generally of the significant environmental effects of a project, possible ways to minimize significant effects, and reasonable alternatives to the project.

EIS Environmental Impact Statement (federal) – National Environmental Policy Act (NEPA) requirement for assessing the environmental impacts of federal actions that may have a significant impact on the human environment.

EMFAC Emission Factor – Model that estimates on-road motor vehicle emission rates for current year as well as backcasted and forecasted inventories.

EPA Environmental Protection Agency – Federal agency established to develop and enforce regulations that implement environmental laws enacted by Congress to protect human health and safeguard the natural environment.

FAA Federal Aviation Administration – Federal agency responsible for issuing and enforcing safety regulations and minimum standards, managing air space and air traffic, and building and maintaining air navigation facilities.

FHWA Federal Highway Administration – Federal agency responsible for administering the Federal-Aid Highway Program, which provides federal financial assistance to the states to construct and improve the National Highway System, urban and rural roads, and bridges.

Financially Constrained Expenditures are said to be financially constrained if they are within limits of anticipated revenues.

FRA Federal Railroad Administration – Federal agency created to promulgate and enforce rail safety regulations, administer railroad assistance programs, conduct research and development in support of improved railroad safety and national rail transportation policy, and consolidate government support of rail transportation activities.

FTA Federal Transit Administration – The federal agency responsible for administering federal transit funds and assisting in the planning and establishment of areawide urban mass transportation systems. As opposed to FHWA funding, most FTA funds are allocated directly to local agencies, rather than Caltrans.

FTIP Federal Transportation Improvement Program – A three-year list of all transportation projects proposed for federal transportation funding within the planning area of an MPO. (Note: The FTIP is locally referred to as the 2006 RTIP.)

FY Fiscal Year – The twelve-month period on which the budget is planned. The state fiscal year begins July 1 and ends June 30 of the following year. The federal fiscal year begins October 1 and ends September 30 of the following year.

GAO Government Accountability Office – Congressional agency responsible for examining matters related to the receipt and payment of public funds.

GARVEE Grant Anticipation Revenue Vehicles – A debt financing instrument authorized to receive federal reimbursement of debt service and related financing costs under Section 122 of Title 23, United States Code. GARVEEs can be issued by a state, a political subdivision of a state, or a public authority.

GHG Greenhouse Gases – Components of the atmosphere that contribute to the greenhouse effect. The principal greenhouse gases that enter the atmosphere because of human activities are carbon dioxide, methane, nitrous oxide, and fluorinated gases.

GIS Geographic Information System – Powerful mapping software that links information about where things are with information about what things are like. GIS allows users to examine relationships between features distributed unevenly over space, seeking patterns that may not be apparent without using advanced techniques of query, selection, analysis, and display.

GNP Gross National Product – An estimate of the total value of goods and services produced in any specified country in a given year. GNP can be measured as a total amount or an amount per capita.

Grade Crossing A crossing or intersection of highways, railroad tracks, other guideways, or pedestrian walks, or combinations of these at the same level or grade.

HCP Habitat Conservation Plan – Established under Section 10 of the Endangered Species Act to allow development to proceed while protecting endangered species.

HDT Heavy-Duty Truck – Truck with a gross vehicle weight of 8,500 pounds or more.

HICOMP Highway Congestion Monitoring Program (Caltrans) – A report that measures the congestion that occurs on urban area freeways in California.

Home-based work trips Trips that go between home and work, either directly or with an intermediate stop. Home-based work trips include telecommuting, working at home and non-motorized transportation work trips.

HOT Lane High-Occupancy Toll Lane – An HOV lane that single-occupant drivers can pay to drive in.

HOV Lane High-Occupancy Vehicle Lane – A lane restricted to vehicles with two (and in some cases three) or more occupants to encourage carpooling. Vehicles include automobiles, vans, buses and taxis.

HPMS Highway Performance Monitoring System – A federally mandated program designed by FHWA to assess the performance of the nation's highway system.

HSRT High-Speed Regional Transport – Transportation system that operates at very high speeds on an exclusive right-of-way.

HUD U.S. Department of Housing and Urban Development – Federal agency charged with increasing homeownership, supporting community development, and increasing access to affordable housing free from discrimination.

ICAPCD Imperial County Air Pollution Control District – Local air pollution control agency mandated by state and federal regulations to implement and enforce air pollution rules and regulations.

IGR Intergovernmental Review Process – The review of documents by several governmental agencies to ensure consistency of regionally significant local plans, projects, and programs with SCAG's adopted regional plans.

Infrastructure The basic facilities, equipment, services and installations needed for the growth and functioning of a community.

IOS Initial Operating Segment.

ISTEA Intermodal Surface Transportation Efficiency Act – Signed into federal law on December 18, 1991, it provided authorization for highways, highway safety and mass transportation for FYs 1991–1997 and served as the legislative vehicle for defining federal surface transportation policy.

ITIP Interregional Transportation Improvement Program – The portion of the STIP that includes projects selected by Caltrans (25 percent of STIP funds).

ITS Intelligent Transportation Systems – Systems that use modern detection, communications and computing technology to collect data on system operations and performance, communicate that information to system managers and users, and use that information to manage and adjust the transportation system to respond to changing operating conditions, congestion or accidents. ITS technology can be applied to arterials, freeways, transit, trucks and private vehicles. ITS include Advanced Traveler Information Systems (ATIS), Advanced Public Transit Systems (APTS), Advanced Traffic Management Systems (ATMS), Advanced Vehicle Control Systems (AVCS) and Commercial Vehicle Operations (CVO).

IVAG Imperial Valley Association of Governments – Council of Governments for Imperial County. IVAG is responsible for short-range transportation planning, including all projects utilizing federal and state highway and transit funds.

JPA Joint Powers Authority – Two or more agencies that enter into a cooperative agreement to jointly wield powers that are common to them. JPAs are a vehicle for the cooperative use of existing governmental powers to finance and provide infrastructure and/or services in a cost-efficient manner.

LACMTA Los Angeles County Metropolitan Transportation Authority, more commonly referred to as the MTA – Agency responsible for planning and funding countywide transportation improvements, administering the county's transportation sales tax revenues, and operating bus and rail transit service.

LAUPT Los Angeles Union Passenger Terminal, also known as Union Station.

LAWA Los Angeles World Airports – Aviation authority of the City of Los Angeles. LAWA owns and operates Los Angeles International (LAX), Ontario International, Van Nuys, and Palmdale Airports.

LCVs Longer-Combination Vehicles – Includes tractor-trailer combinations with two or more trailers that weigh more than 80,000 pounds.

LEM Location Efficient Mortgage – Allows people to qualify for larger loan amounts if they choose a home in a densely populated community that is well served by public transit, and where destinations are located close together so that they can also walk and bike instead of driving everywhere.

Livable Communities Any location in which people choose may be viewed as "livable." However, communities that contain a healthy mix of homes, shops, work places, schools, parks, and civic institutions coupled with a variety of transportation choices, give residents greater access to life's daily essentials and offer higher quality of life to a wider range of residents.

LRT Light Rail Transit – A mode of transit that operates on steel rails and obtains its power from overhead electrical wires. LRT may operate in single or multiple cars on separate rights-of-way or in mixed traffic.

LTF Local Transportation Fund – A fund which receives TDA revenues.

MAGLEV Magnetic Levitation high-speed transportation system.

MAP Million Annual Passengers – Used to quantify airport activity.

Market Incentives Measures designed to encourage certain actions or behaviors. These include inducements for the use of carpools, buses and other HOVs in place of single-occupant automobile travel. Examples include HOV lanes, preferential parking, and financial incentives.

MDAB Mojave Desert Air Basin – Area defined by state law as comprising the desert portions of Los Angeles, Kern, Riverside, and San Bernardino Counties.

MDAQMD Mojave Desert Air Quality Management District – Local air agency mandated by state and federal regulations to implement and enforce air pollution rules and regulations; encompasses the desert portion of San Bernardino County from the summit of the Cajon Pass north to the Inyo County line, as well as the Palo Verde Valley portion of Riverside County.

Measure A Revenues generated from Riverside County's local half-cent sales tax.

Measure I Revenues generated from San Bernardino County's local half-cent sales tax.

Metrolink Regional commuter rail system connecting Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties and operated by SCRRA.

MIS Major Investment Study – The preliminary study, including preliminary environmental documentation, for choosing alternative transportation projects for federal transportation funding. An MIS is a requirement, which is conducted cooperatively by the study sponsor and the MPO.

Mixed Flow Traffic movement having autos, trucks, buses and motorcycles sharing traffic lanes.

Mode A particular form of travel (e.g., walking, traveling by automobile, traveling by bus or traveling by train).

Mode Split The proportion of total person trips using various specified modes of transportation.

Model A mathematical description of a real-life situation that uses data on past and present conditions to make a projection.

MPO Metropolitan Planning Organization – A federally required planning body responsible for transportation planning and project selection in a region.

MTS Metropolitan Transportation System – Regional network of roadways and transit corridors.

Multimodal A mixture of the several modes of transportation, such as transit, highways, non-motorized, etc.

NAAQS National Ambient Air Quality Standards – Targets established by the U.S. Environmental Protection Agency (EPA) for the maximum contribution of a specific pollutant in the air.

NAFTA North American Free Trade Agreement – An agreement between the governments of Canada, Mexico, and the United States to eliminate barriers to trade and facilitate the cross-border movement of goods and services.

NCCP Natural Communities Conservation Plan – Program under the Department of Fish and Game that uses a broad-based ecosystem approach toward planning for the protection of plants, animals and their habitats, while allowing compatible and appropriate economic activity.

NEPA National Environmental Protection Act – Federal environmental law that applies to all projects funded with federal funds or requiring review by a federal agency.

NIMS National Incident Management System – Nationwide template that enables all government, private-sector and non-governmental organizations to work together during a domestic incident.

Nominal dollars Actual dollars expended/received in a specific year without adjustments for inflation/deflation.

NOx Nitrogen oxides – A group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. NOx are a major component of ozone and smog, and they are one of six principal air pollutants tracked by the EPA.

NTD National Transit Database – The Federal Transit Administration's (FTA) national database for transit statistics.

O&M Operations and Maintenance – The range of activities and services provided by the transportation system and the upkeep and preservation of the existing system.

OCTA Orange County Transportation Authority – Agency responsible for planning and funding countywide transportation improvements, administering the county's transportation sales tax revenues, and operating bus transit service.

OLDA Orangeline Development Authority – Joint exercise of powers authority developed by the cities located along the Orangeline corridor.

OnTrac Orange-North America Trade Rail Access Corridor – Formed in April of 2000 to build and support the Orangethorpe Avenue Grade Separation and Trade Corridor project, a 5-mile-long railroad-lowering project that will completely grade separate 11 rail crossings in the cities of Placentia and Anaheim.

OWP Overall Work Program – SCAG develops an OWP annually, describing proposed transportation planning activities for the upcoming fiscal year, including those required by federal and state law.

PATH Partners for Advanced Transit and Highways – Joint venture of Caltrans which includes the University of California, and other public and private academic institutions and industries.

PEIR Program Environmental Impact Report – Environmental review process used to evaluate the potential environmental effects of large-scale plans or programs.

PeMS Freeway Performance Measurement System – A service provided by the University of California, Berkeley, to collect historical and real-time freeway data from freeways in the state of California in order to compute freeway performance measures.

Person Trip A trip made by a person by any mode or combination of modes for any purpose.

PM10 Particulate Matter – A mixture of solid particles and liquid droplets found in the air, 10 micrometers or less in size (a micrometer is one-millionth of a meter). These coarse particles are generally emitted from sources such as vehicles traveling on unpaved roads, materials handling, and crushing and grinding operations, as well as windblown dust.

PM2.5 Particulate Matter – A mixture of solid particles and liquid droplets found in the air, 2.5 micrometers or less in size (a micrometer is one-millionth of a meter). These fine particles result from fuel combustion from motor vehicles, power generation, and industrial facilities, as well as from residential fireplaces and wood stoves.

PMD LA/Palmdale Regional Airport – Regional airport located in Palmdale.

PPP Public-Private Partnership – Contractual agreements formed between a public agency and private sector entity that allow for greater private sector participation in the delivery of transportation projects.

PRC Peer Review Committee – An "informal" committee of technical experts usually organized and invited to review and comment on various technical issues and processes used in the planning process.

Proposition 1A Passed by voters in 2006, Proposition 1A protects transportation funding for traffic congestion relief projects, safety improvements, and local streets and roads. It also prohibits the state sales tax on motor vehicle fuels from being used for any purpose other than transportation improvements, and authorizes loans of these funds only in the case of severe state fiscal hardship.

Proposition 1B Highway Safety, Traffic Reduction, Air Quality, and Port Security State of California – Passed in November 2006, Proposition 1B provides $19.9 billion to fund state and local transportation improvement projects to relieve congestion, improve movement of goods, improve air quality, and enhance safety and security of the transportation system.

Proposition 42 As of March 2002, placed in the State Constitution those provisions of current law requiring the use of state gasoline sales tax revenues for state and local transportation purposes.

Proposition A Revenues generated from Los Angeles County's local half-cent sales tax. Los Angeles County has two permanent local sales taxes (Propositions C and A).

Proposition C Revenues generated from Los Angeles County's local half-cent sales tax. Los Angeles County has two permanent local sales taxes (Propositions C and A).

PSR Project Study Report – Defines and justifies the project's scope, cost, and schedule. PSRs are prepared for state highway projects and PSR equivalents are prepared for projects not on the State Highway System. Under state law, a PSR or PSR equivalent is required for STIP programming.

PTA Public Transportation Account – The major state transportation account for mass transportation purposes. Revenues include a portion of the sales tax on gasoline and diesel fuels.

PUC Public Utilities Commission – Regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies.

Railroad Siding A short stretch of railroad track used to store rolling stock or enable trains on the same line to pass; also called sidetrack.

RC Regional Council – Conducts the affairs of SCAG; implements the General Assembly's policy decisions; acts upon policy recommendations from SCAG policy committees and external agencies; appoints committees to study specific problems; and amends, decreases or increases the proposed budget to be reported to the General Assembly.

RCP Regional Comprehensive Plan (RCP) – Developed by SCAG, the RCP is a vision of how Southern California can balance resource conservation, economic vitality, and quality of life. It will serve as a blueprint to approach growth and infrastructure challenges in an integrated and comprehensive way.

RCTC Riverside County Transportation Commission – Agency responsible for planning and funding countywide transportation improvements and administering the county's transportation sales tax revenues.

RHNA Regional Housing Needs Assessment – Quantifies the need for housing within each jurisdiction of the SCAG Region based on population growth projections. Communities then address this need through the process of completing the housing elements of their general plans.

Robust Flight Portfolio Providing a range of flight offerings in different haul length categories including short-haul, medium-haul, long-haul and international flights.

ROG Reactive organic gas – Organic compounds assumed to be reactive at urban/regional scales. Those organic compounds that are regulated because they lead to ozone formation.

RSTIS Regionally Significant Transportation Investment Study – Involves identifying all reasonable transportation options, their costs, and their environmental impacts. RSTIS projects are generally highway or transit improvements that have a significant impact on the capacity, traffic flow, level of service or mode share at the transportation corridor or sub-area level.

RSTP Regional Surface Transportation Program – Established by the California state statute utilizing federal Surface Transportation Program funds. Approximately 76 percent of the state's RSTP funds must be obligated on projects located within the 11 urbanized areas of California with populations of 200,000 or more.

RTIP Regional Transportation Improvement Program – Refers to the share of capital outlay improvement funds controlled by regional agencies (75 percent of STIP funds). (Note: The FTIP is locally referred to as the 2006 RTIP.)

RTMS Regional Transportation Monitoring System – Internet-based transportation monitoring system. The RTMS will be the source for real-time and historical transportation data collected from local, regional and private data sources.

RTP Regional Transportation Plan (RTP) – Federally required 20-year plan prepared by metropolitan planning organizations and updated every four years. Includes projections of population growth and travel demand, along with a specific list of proposed projects to be funded.

RTSS Regional Transit Security Strategy – Strategy for the region with specific goals and objectives related to the prevention, detection, response and recovery of transit security issues.

SAFETEA-LU Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users – Signed into law by President Bush on August 10, 2005, it authorized the federal surface transportation programs for highways, highway safety, and transit for the 5-year period of 2005-2009.

SANBAG San Bernardino Associated Governments – The council of governments and transportation planning agency for San Bernardino County. SANBAG is responsible for cooperative regional planning and developing an efficient multimodal transportation system countywide.

SANDAG San Diego Association of Governments.

SB 45 Senate Bill 45 (Chapter 622, Statutes of 1997, Kopp) – Established the current STIP process and shifted control of decision-making from the state to the regional level.

SB 79 Senate Bill 79 Transportation Trailer Bill – Provides transportation funds on an ongoing basis to help the General Fund beyond Fiscal Year 2008

SB 974 Senate Bill 974 – Introduced by Senator Alan Lowenthal, SB 974 would impose a $30 fee on each shipping container processed at the Ports of Los Angeles, Long Beach, and Oakland for congestion management and air quality improvements related to ports.

SBD San Bernardino International Airport – International airport located in San Bernardino.

SCAB South Coast Air Basin – Comprises the non–Antelope Valley portion of Los Angeles County, Orange County, Riverside County, and the non-desert portion of San Bernardino County.

SCAG Southern California Association of Governments – The metropolitan planning organization (MPO) for six counties including Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

SCAQMD South Coast Air Quality Management District – The air pollution control agency for Orange County and major portions of Los Angeles, San Bernardino and Riverside Counties in Southern California.

SCCAB South Central Coast Air Basin – Comprises San Luis Obispo, Santa Barbara, and Ventura Counties.

SCRIFA Southern California Railroad Infrastructure Financing Authority.

SED Socioeconomic Data – Population, employment and housing forecast.

SHA State Highway Account – The major state transportation account for highway purposes. Revenues include the state excise taxes on gasoline and diesel fuel and truck weight fees.

SHOPP State Highway Operation and Protection Program – A four-year capital improvement program for rehabilitation, safety, and operational improvements on state highways.

SIP State Implementation Plan – State air quality plan to ensure compliance with state and federal air quality standards. In order to be eligible for federal funding, projects must demonstrate conformity with the SIP.

SOV Single–Occupant Vehicle – Privately operated vehicle that contains only one driver or occupant.

SOX Sulfur oxide – Any of several compounds of sulfur and oxygen, formed from burning fuels such as coal and oil.

SSAB Salton Sea Air Basin – Comprises the Coachella Valley portion of Riverside County and all of Imperial County.

STA State Transit Assistance – State funding program for mass transit operations and capital projects. Current law requires that STA receive 50 percent of PTA revenues.

STIP State Transportation Improvement Program – A four-year capital outlay plan that includes the cost and schedule estimates for all transportation projects funded with any amount of state funds. The STIP is approved and adopted by the CTC and is the combined result of the ITIP and the RTIP.

STP Surface Transportation Program – Provides flexible funding that may be used by states and localities for projects on any federal-aid highway, bridge projects on any public road, transit capital projects, and intracity and intercity bus terminals and facilities. A portion of funds reserved for rural areas may be spent on rural minor collectors.

TAC Technical Advisory Committee – A SCAG committee that provides ideas and feedback on the technical integrity of the Regional Transportation Plan.

TANN Traveler Advisory News Network – Provides real-time traffic and transportation information content to communications service providers and consumer media channels both nationally and internationally.

TAZ Traffic Analysis Zone – Zone system used in travel demand forecasting.

TCC Transportation and Communications Committee (SCAG) – Committee used to study problems, programs and other matters related to regional issues of mobility, air quality, transportation control measures and communications.

TCM Transportation Control Measure – A project or program that is designed to reduce emissions or concentrations of air pollutants from transportation sources. TCMs are referenced in the state Implementation Plan (SIP) for the applicable air basin and have priority for programming and implementation ahead of non-TCMs.

TCRP Traffic Congestion Relief Program – Enacted by state legislation in 2000 to provide additional funding for transportation over a six-year period (later extended to eight years). The program is funded by a combination of General Fund revenues (one-time) and ongoing revenues from the state sales tax on gasoline. In March 2002 voters passed Proposition 42, which permanently dedicated gasoline sales tax revenues to transportation purposes.

TCWG Transportation Conformity Working Group – Forum used to support interagency coordination to help improve air quality and maintain transportation conformity.

TDA Transportation Development Act – State law enacted in 1971 that provided a 0.25 percent sales tax on all retail sales in each county for transit, bicycle, and pedestrian purposes. In non-urban areas, funds may be used for streets and roads under certain conditions.

TDM Transportation Demand Management – Strategies that result in more efficient use of transportation resources, such as ridesharing, telecommuting, park-and-ride programs, pedestrian improvements, and alternative work schedules.

TEA-21 Transportation Equity Act for the 21st Century – The predecessor to SAFETEA-LU, it was signed into federal law on June 9, 1998. TEA-21 authorized the federal surface transportation programs for highways, highway safety, and transit for the six-year period 1998–2003. TEA-21 builds upon the initiatives established in ISTEA.

TEU Twenty-foot Equivalent Unit, a measure of shipping container capacity.

TIFIA Transportation Infrastructure Finance and Innovation Act of 1998 – Established a new federal credit program under which the US DOT may provide three forms of credit assistance—secured (direct) loans, loan guarantees, and standby lines of credit—for surface transportation projects of national or regional significance. The program's fundamental goal is to leverage federal funds by attracting substantial private and other non-federal co-investment in critical improvements to the nation's surface transportation system. Sponsors may include state departments of transportation, transit operators, special authorities, local governments, and private entities.

TOD Transit-Oriented Development – A planning strategy that explicitly links land-use and transportation by focusing mixed housing, employment and commercial growth around bus and rail stations (usually within ½ mile). TODs can reduce the number and length of vehicle trips by encouraging more bicycle/pedestrian and transit use, and can support transit investments by creating the density around stations to boost ridership.

TP&D Transportation Planning and Development Account – A state transit trust fund that is the funding source for the STA program.

Trantrak RTIP database management system.

TSWG Transportation Security Working Group – Advises the operating organizations on transportation safety matters associated with the transfer or shipment of hazardous materials.

TUMF Transportation Uniform Mitigation Fee – Ordinance enacted by the Riverside County Board of Supervisors and cities to impose a fee on new development to fund related transportation improvements.

UP Union Pacific Railroad.

US DOT U.S. Department of Transportation – Federal agency responsible for the development of transportation policies and programs that contribute to providing fast, safe, efficient, and convenient transportation at the lowest cost consistent with those and other national objectives, including the efficient use and conservation of the resources of the United States. US DOT is comprised of ten operating administrations, including FHWA, FTA, FAA, and FRA.

VCTC Ventura County Transportation Commission – Agency responsible for planning and funding countywide transportation improvements.

Vehicle Hours of Delay The travel time spent on the highway due to congestion. Delay is estimated as the difference between vehicle hours traveled at a specified free–flow speed and vehicle hours traveled at a congested speed.

VHDD Vehicle Hours of Daily Delay – Hours of delay attributed to congestion for vehicles each day.

VMT Vehicle Miles Traveled – On highways, a measurement of the total miles traveled by all vehicles in the area for a specified time period. It is calculated by the number of vehicles times the miles traveled in a given area or on a given highway during the time period. In transit, the number of vehicle miles operated on a given route or line or network during a specified time period.

VOC Volatile Organic Compounds – Organic gases emitted from a variety of sources, including motor vehicles, chemical plants, refineries, factories, consumer and commercial products, and other industrial sources. Ozone, the main component of smog, is formed from the reaction of VOCs and NOx in the presence of heat and sunlight.

ACKNOWLEDGEMENTS

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SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2008 RTP REGIONAL TRANSPORTATION PLAN

Making the Connections

Project List

PROJECT LIST

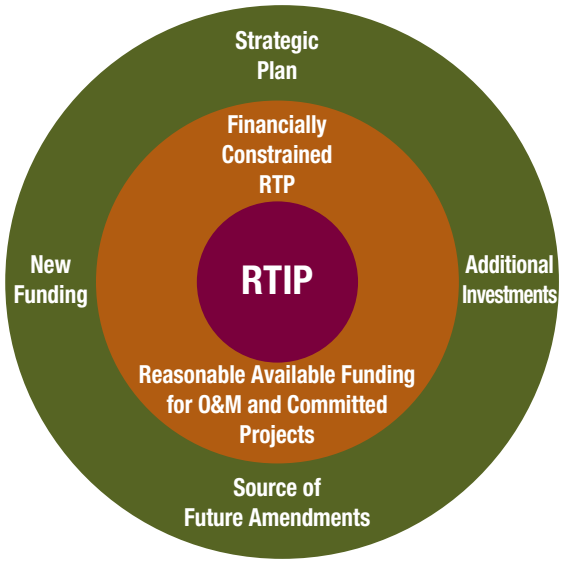
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The project list is divided into three sections, consistent with the framework provided in Figure 1. At the center is the Regional Transportation Improvement Program (RTIP), which forms the foundation of the RTP project investment strategy and represents the first six years of already-committed funding. The RTP contains an additional financially constrained set of transportation projects above and beyond the RTIP. Finally, the Strategic Plan represents an unconstrained, illustrative list of potential projects that the region would pursue given additional funding and commitment.

FIGURE 1 RTP FRAMEWORK



RTIP Projects

The adopted 2006 RTIP is incorporated into the 2008 RTP, and the following tables present the RTIP projects and their estimated total project costs. For more detailed information on the RTIP projects, refer to the complete 2006 RTIP project list available at www.scag.ca.gov.

Projects are sorted by system (S = state highway, L = local highway, T = transit). State highways are further sorted by route number, while local highways and transit projects are sorted by RTP ID number.

Project costs are presented in nominal dollars.

IMPERIAL COUNTY RTIP PROJECTS

IMPERIAL COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	0051Y	7	NEAR CALEXICO FROM SR 98 TO I-8 - 4 LANE EXPRESSWAY PLANTING MITIGATION	$2,494
S	0515	8	IN EL CENTRO FROM 0.8 KM WEST TO 0.6 KM EAST OF IMPERIAL AVE RECONSTRUCT INTERCHANGE AT I-8 AND IMPERIAL AVE	$37,212
S	IMP030310	8	AT CALIFORNIA/ARIZONA BORDER CONSTRUCT A NEW PORT OF ENTRY INCLUDING A COMMERCIAL VEHICLE ENFORCEMENT FACILITY AND AGRICULTURAL INSPECTION STATION	$2,034
S	IMP0021	78	BRAWLEY BYPASS CORRIDOR -- IN AND NEAR BRAWLEY FROM 0.5 MILES SOUTH OF BAUGHMAN ROAD TO MEAD RD - 4 LANE EX-PRESSWAY ON SR 86 TO 0.3 MILES NORTH OF MEAD RD. ON SR 111	$229,252
S	8020	98	CALEXICO FROM 0.5 KM WEST OF DOGWOOD RD. TO 0.3 KM EAST OF ROCKWOOD AVE., WIDEN HWY FROM 1 TO 2 LANES IN EACH DIRECTION WITH TURN POCKETS AT MAJOR INTERSECTIONS CONSTRUCTED IN TWO PHASES	$57,927
S	IMP0042A	98	IN AND NEAR CALEXICO FROM 0.6 KM WEST OF SR 111 EASTERLY TO ALAMO RIVER BRIDGE WIDEN TO 4 LANE HWY (ENV. WORK & DOC. FOR SR98) ENVIRONMENTAL WORKAND DOCUMENTATION FOR SR 98"	$82,860
S	IMP0581	186	ANDRADE COMMERCIAL VEHICLE ENFORCEMENT FACILITY WIDEN NORTHBOUND SHOULDER OF SR186 (STATE INSPECTION FACILITY PROGRAM GRANT)	$1,025
L	0520A	0	NEAR EL CENTRO; DOGWOOD CORRIDOR - WIDEN & IMPROVE DOGWOOD RD. (2 TO 4 LANES) FROM CORRELL NORTH TO 2600 ' NORTH OF MCCABE & INSTALL 2 SIGNALS AB 3090 REIMBURSMENT FOR 11-IMP0520	$276
L	IMP020801	0	BAUGHMAN ROAD RECONSTRUCTION 0.3 MILE OF COUNTY RD. FUNDS TRANSFERRED FROM 11-IMP990308	$951
L	IMP050501	0	REMOVAL AND RECONSTRUCTION OF EXISTING 2 LANE BEST RD (1.25) FROM SR78 TO (. 25) MILES SOUTH OF SHANK RD.	$2,000
L	IMP050502	0	REMOVAL AND RECONSTRUCTION OF EXISTING 4 LANE DOGWOOD RD (1.3 MILES) FROM I-8 BRIDGE TO MAIN ST - PHASE I	$906
L	IMP050503	0	REMOVAL AND RECONSTRUCTION OF THE EXISTING 4 LANE DOGWOOD RD. (.7 MILES) FROM MAIN ST TO VILLA RD. - PHASE II	$314
L	IMP050504	0	REHABILITATION AND OVERLAY OF IMPERIAL AVE. (.5 MILE) PHASE III FROM ORANGE TO ADAMS AVE.	$563
L	IMP050505	0	ORANGE AVE. IMPROVEMENTS TO EXISITING 2 LANE FROM WATERMAN AVE TO LA BRUCHERIE RD. (.25 MILE) OVERLAY, PARKING AND DRAINAGE	$193
L	IMP050506	0	IMPROVEMENT OF INTERSECTION OF 4TH AND SR 115 AND REALIGNMENT OF ROUTE CONVERGENCE OF ORCHARD, PALM RDS AND 4TH ST	$858
L	IMP050507	0	REHABILITATION OF ATEN RD. (2.25 MILES) FROM VALORE WAY TO CROSS RD AND SIGNALIZATION OF TWO INTERSECTIONS	$1,857
L	IMP050508	0	VARIOUS LOCATIONS; ASPHALTIC CONCRETE OVERLAYS	$1,136

IMPERIAL COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	IMP050509	0	COLE RD. CORRIDOR IMPROVEMENTS; EXPANSION OF 2 LANE ROAD INTO 4 LANE PRINCIPAL ARTERIAL (.5 MILES) FROM BOWKER RD EAST TO SR 98	$2,031
L	IMP050901	0	MALAN RD; 2.25 MILES OF ROAD SURFACE AND SAFETY IMPROVEMENTS, FROM THE WATER PLANT TO 18TH STREET	$1,400
L	IMP050902	0	KEYSTONE RD NEAR IMPERIAL, RECONSTRUCTION OF 6 MILES TO CREATE TRUCK LANE FROM SR 111 TO AUSTIN RD	$2,500
L	IMP050905	0	IN HEBER; CONSTRUCTION OF SIDEWALKS	$500
L	IMP051101	0	IN WESTMORLAND- SOUTH CENTER STREET; ROADWAY SURFACE IMPROVEMENTS, STREET LIGHTING AND STORM DRAIN IMPROVE-MENTS FROM BAUGHMAN RD. TO SR 78/86	$800
L	IMP051201	0	NEAR EL CENTRO; DOGWOOD CORRIDOR - WIDEN & IMPROVE DOGWOOD RD. (2 TO 4 LANES) FROM CORRELL NORTH TO 2600 ' NORTH OF MCCABE & INSTALL 2 SIGNALS ROW AND CON	$3,024
L	IMP991102	0	RECONSTRUCTION AND WIDENING OF COLE ROAD FROM 2 LANES TO 4 LANES; FROM RAILROAD TRACKS EAST TO KLOKE ROAD (.33) MILES	$860
T	IMP051104	0	IN EL CENTRO; REGIONAL PUBLIC BUS TRANSFER TERMINAL AND PASSENGER WAITING AREA AT 7TH AND STATE STREETS, WITH MISC OTHER BUS STOP IMPROVEMENTS ON FIXED ROUTE SYSTEM	$3,687
T	IMP33000	0	COUNTY WIDE TRANSIT SYSTEM - OPERATING AND CAPITAL ASSISTANCE	$25,761
T	IMP33003	0	ADA PARATRANSIT SERVICE OPERATING ASSISTANCE	$5,052
T	IMP33004	0	BRAWLEY DIAL-A-RIDE - OPERATING ASSISTANCE	$1,458
T	IMP33006	0	CITY OF IMPERIAL DIAL-A-RIDE - OPERATING ASSISTANCE	$756
T	IMP33021	0	CALEXICO DIAL-A-RIDE OPERATING ASSISTANCE	$2,326
T	IMP33023	0	MED-EXPRESS SHUTTLE OPERATIONAL ASSISTANCE	$1,432
T	IMP43000	0	WEST SHORES DIAL-A-RIDE OPERATIONAL ASSISTANCE	$1,125
T	IMP990401	0	EL CENTRO DIAL-A-RIDE OPERATING ASSISTANCE	$1,420

* S=State Highway, L=Local Highway, T=Transit

LOS ANGELES COUNTY RTIP PROJECTS

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	LA0D462	0	I-5 PARKER RD INTERSECTION IMPROVEMENTS INCLUDING BRIDGE WIDENING AND LANE ADDITIONS	$500
S	LA0D463	0	I-5 LAKE HUGHES RD- INTERSECTION IMPROVEMENTS & WIDENING TO PROVIDE ADDITIONAL LANES ON EASTBOUND AND WESTBOUND APPROACHES	$500
S	LA0D479	0	LOS ANGELES COUNTY ITIP TRANSPORTATION ENHANCEMENT PROJECT LUMP SUM (PPNO 3546, 3547, 3548, 3550)	$11,243
S	LA998410	0	LUMP SUM:SOUNDWALLS - PHASE I, PRIORITY 1, CONSTRUCTION	$88,000
S	16606	1	NEAR MARINA REY ON LINCOLN BL FRM JEFFERSON BL TO FIJI WAY - WIDEN FROM 3 TO 4 THRU LNES IN EA. DIR. & RPLCE CULVER BL OC &CNSTRCT NEW BRDG OVR BALLONA CREK (EA 1661C, PPNO 0027P).	$3,232
S	LA0C8080	1	IN MANHATTAN BEACH: ON ROUTE 1 BETWEEN 33RD STREET & ROSECRANS AV; ADD ONE THROUGH LN TO NORTH BOUND SEPULVEDA BLVD. TO WIDEN EXISTING STRUCTURE FROM 6 TO 7 THROUGH LANES PPNO 3236	$13,464
S	LA962214	1	PACIFIC COAST HIGHWAY TRAFFIC MANAGEMENT SYSTEM FROM MCCLURE TUNNEL TO TRANCAS CANYON RD TRAFFIC MAN. & BUS SPEED IMPROVEMNT(TEA21-#707). LACDPW LEAD AGENCY INSTEAD CALTRANS.	$5,809
S	LA000274	2	FROM SEPULVEDA TO MORENO CONSTRUCT DIVIDED PKWY WITH TRANSIT PKWAY IMPROVEMENTS, BIKE LANES & RT. 2/405 INTER-CHANGE (94CFP; CAT. 2, 210, 98STIP00027) TEA21-#1531	$76,222
S	LA000357	5	RTE 5 FROM ROUTE 170 TO ROUTE 118 HOV LANES (10 TO 12 LANES) (CFP 345) (2001 CFP 8339; CFP2197). (EA# 121901, PPNO 0158K) (TCRP#41.2)	$310,800
S	LA000358	5	--- FROM ROUTE 134 TO ROUTE 170 HOV LANES (8 TO 10 LANES) (CFP 346)(2001 CFP 8355). (EA# 121801, PPNO 0142F) SAFETEA LU # 570, RTE 5 / EMPIRE AVE - ACCESS IMP.	$609,800
S	LA0D192	5	GARVEE DEBT SERVICE PAYMENTS: RT 5 FROM RT 118 TO RT 14 FROM 10 TO 12 LANES HOV LANES. EA# 122001, PPNO 0162P.	$28,895
S	LA0D73	5	LA MIRADA, NORWALK & SANTA FE SPRINGS-ORANGE CO LINE TO RTE 605 JUNCTION. WIDEN FOR HOV & MIXED FLOW LNS, RECON-STRUCT VALLEY VIEW (EA 2159A0, PPNO 2808). TCRP#42.2&42.1	$1,155,300
S	LA0D73B	5	IN NORWALK: FROM ORANGE COUNTY LINE TO ROUTE 605: CARMENITA INTERCHANGE IMPROVEMENT (EA 2159C0, PPNO 2808A) (TCRP 42.3, & 43)	$251,500
S	LA0D74	5	IN LOS ANGELES FROM CHAMBERLAIN STREET TO LARKSPUR STREET SOUNDWALL CONSTRUCTION PART OF RTE 5 FR 118 TO 14 HOV PROJECT. EA# 23550 .PPNO 3236.	$41,664
S	LA996134	5	RTE. 5/14 INTERCHANGE & HOV LNS ON RTE 14 - CONSTRUCT 2 ELEVATED LANES - HOV CONNECTOR (DIRECT CONNECTORS) (EA# 16800)(2001 CFP 8343) (PPNO 0168M)	$157,000
S	LA996138	5	RTE.5 HOV LNS. FROM FLORENCE AVE TO RTE.19 - ADD ONE LANE IN EACH DIRECTION	$197,709

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	LAE0465	5	IN L.A./SANTA CLARITA ON RTE 5 FROM SR14 TO PARKER RD, HOV, TRUCK LANE, AND AUXILIARY LANE IMPROVEMENTS	$410,000
S	LAE2577	5	STUDY NORWALK, SANTA FE SPRINGS, DOWNEY, MONTEBELLO, & COMMERCE: ON I-5, CONDUCT PLAN'G, ENV. & ENG. STUDIES FOR WIDEN'G W/HOV & MIXED FLOW LNS FROM I-605 TO I-710.	$4,160
S	0309S	10	BALDWIN PARK AND WEST COVINA - PUENTE AVE TO CITRUS STREET SOUNDWALL PROJECT (95 STIP-IIP) (EA# 111720, PPNO# 0309S)	$10,865
S	LA000548	10	FROM PUENTE TO CITRUS HOV LANES FROM 8 TO 10 LANES (C-ISTEA 77720) (EA# 117080, PPNO# 0309N)	$182,000
S	LA01342	10	RT 10 FROM RT 605 TO PUENTE AVE HOV LANES (8+0 TO 8+2) (EA# 117070, PPNO 0306H) PPNO 3333 3382 AB 3090 REP (TCRP #40)	$191,000
S	LA0B875	10	HOV LANES FROM CITRUS TO ROUTE 57/210 - (EA# 11934, PPNO# 0310B)	$191,500
S	LA0F098	10	L.A. COUNTY I-10 AND I-605 IC;CONSTRUCT ONE/TWO LANE BRIDGE STRUCTURE, BRANCHING OFF SB OF RTE 605 TO EB OF RTE 10 AT-GRADE CONNECTOR RAMP (EA 24540, PPNO 3529)	$70,460
S	LA0C8102	14	SR-14 FREEWAY/AVENUE I INTERCHANGE IMPROVEMENTS-WIDENING AVE I FROM 2 TO 3 LANES IN EACH DIRECTION, ADDING DUAL LEFT TURN LANES, AND WIDENING A BRIDGE STRUCTURE. PPNO 3123.	$10,581
S	LA0D45	47	SR-47 EXPRESSWAY - SCHUYLER HEIM BRIDGE REPLACEMENT (2 MF + 1 AUX NB, 3 MF + 1 AUX SB); CONSTRUCT EXPRESSWAY (4 TO 7 LNS) FROM OCEAN BLVD TO ALAMEDA ST/PCH; CONSTRUCT NEW 2-LANE FLYOVER FROM EB NAVY WAY TO NB SR-47	$687,000
S	LA0B412	60	ROUTE 57/60 INTERCHANGE MIS (E/P, PS/E ONLY)	$1,191
S	LA0D399	60	CONSTRUCTION OF NEW PARTIAL DIAMOND INTERCHANGE FOR STATE ROUTE 60 (SR-60) AT LEMON AVE (SAFETEA-LU # 587).	$19,000
S	LA996137	60	RTE. 60 HOV LNS. FROM RTE. 605 TO BREA CANYON RD. -- CONSTRUCT ONE HOV LANE IN EACH DIRECTION) (CFP: 358, 4262, 6137=67,150+IIP: 5,100) (EA#129410, 129421, PPNO 0482R,0482RA)	$153,300
S	LA0B951	71	ROUTE 10 TO ROUTE 60 - EXPRESSWAY TO FREEWAY CONVERSION - ADD 1 HOV LANE AND 1 MIXED FLOW LANE EACH DIRECTION . (2001 CFP 8349, TCRP #50) (EA# 210600, PPNO 2741) SAFETEA-LU # 3771 (TCRP #50)	$445,000
S	LA0D31	101	CONSTRUCT ONE ADDITIONAL LANE FOR BOTH NORTH AND SOUTH BOUND OFF-RAMPS AT VAN NUYS BLVD. (RIP 1 M, IIP 8 M) (EA # 199630) (PPNO 2789) (DEMO= NAT. CORRIDOR PLANNING AND BORDER DEV.)	$4,064
S	17850	105	LOS ANGELES - SEPULVEDA BLVD TO NASH STREET - WIDEN N/B OFF-RAMP @ SEPULVEDA BL FROM W/B RTE 105. FROM 1 LANE TO 2 LANES. (PPNO# 2119, EA# 17850K) (IIP $7,394)	$28,160
S	LA0F073	105	PROJECTS WITHIN LOS ANGELES INTERNATIONAL AIPORT TO ELIMINATE TRAFFIC BOTTLENECKS. (LAWA) (SEC.336 FUNDING)	$5,067
S	LA0D328	110	IN LOS ANGELES-SB HARBOR FREEWAY FROM 8TH STREET ON RAMP TO I-110/I-10 CONNECTOR, CONSTRUCT AUXILIARY LANE AND MODIFY RAMPS (EA 24110, PPNO 3343)	$54,932

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	LA0D329	110	IN LOS ANGELES; NB HARBOR FREEWAY FROM THE NORTH END OF 12TH STREET UC TO THE NORTH END OF THE 7TH STREET UC; ADD AUXILIARY LANE AND RECONSTRUCT RAMP(EA24120, PPNO 3344)	$48,447
S	LA0D76	110	IN DOWNTOWN LA-ON ROUTE 110-TEMPLE STREET. ACCESS IMPROVEMENTS MODIFYING TEMPLE ST OFF-RAMP (NON-CAPACITY) (EA 22240 PPNO 2961)	$18,200
S	LAE2713	110	IN L.A. ON ROUTE 110 -CONDUCT NECESSARY PLANNING, ENGINEERING AND IMPLEMENT COMPREHENSIVE CORRIDOR MANAGEMENT PLAN FOR ARROYO SECO HISTORIC PKWAY (E/P, PS/E ONLY)	$1,400
S	LA0C8099	126	SR-126/COMMERCE CTR DR NEW IC. CONSTRUCT A PARTIAL CLOVERLEAF, GRADE SEPARATED IC AND WIDEN ST 126 FROM .76 KM EAST OF IC TO .85 KM WEST 4-6 LANES. (2001 CFP 8099) (PPNO 3118)	$37,600
S	LA0D480	126	SR-126 IMPROVEMENTS - LOS ANGELES COUNTY LINE TO CASTAIC CREEK BRIDGE: IMPROVE 5 INTERSECTIONS ADD LT & RT LANES, ADD 1 SB AUX LANE FROM LONG CANYON RD TO WOLCOTT WAY	$35,500
S	17870	134	RTE 134 BETWEEN I-5 & PACIFIC AVE MODIFY 134/SAN FERNANDO RD I/C & GRADE SEP AT UPRR SAN FERNANDO/FLOW- ER (WIDEN 1 BRIDGE & 1 OFF RAMP) NON-CAPACITY INCREASING (PPNO 9814)	$55,462
S	LA0D174	138	ROUTE 138 WIDENING FROM 2 LANES TO 4 LANES-WIDENING AT TWIN BRIDGES (SEG.11B) EA# 127261, PPNO 3330 (SAFETEALU # 2542)	$14,365
S	LA0D180	138	ROUTE 138 WIDENING FROM 2 TO 4 LANES WITH MEDIAN TURN LANE-175TH STREET EAST TO LARGO VISTA ROAD (SEG.12). EA# 127271, PPNO 0694Q.	$37,695
S	LA0D451	138	ROUTE 138 FROM AVE. T TO ROUTE 18-WIDEN 2 TO 4 THRU LANES WITH MEDIAN TURN LANE. EA# 12721,12722,12723,12724,12725, 12728. PPNO# 3325,3326,3327,3328,3329,3331	$52,819
S	LA962212	138	IN PALMDALE @ AVENUE P-8 FROM ROUTE 14 TO 50TH STREET - ACQUISITION OF ROW FOR FUTURE RTE 138 (TIER 2 ENV) (CFP 2212 $3540 2001 CFP 8021)(EA# 116720,PPNO 0393F)	$88,970
S	LA963724	210	IN LA VERNE AND CLAREMONT, FROM FOOTHILL BOULEVARD TO SAN BERNAR- DINO COUNTY LINE - CONSTRUCT 8-LANE FREEWAY INCLUDING 2-HOV LANES (12620, 12640, 12630, 10501, 17210) 24270	$5,643
S	LAE0219	210	CONSTRUCT SOUND WALLS ALONG PORTIONS OF THE I-210 FREEWAY BETWEEN ARROYO BLVD AND ORANGE GROVE	$1,800
S	49160	405	IN INGLEWOOD AT ARBOR VITAE AVENUE-CONSTRUCT SOUTH HALF OF INTER-CHANGE. EA# 491601, PPNO 0831)	$53,080
S	LA0B408	405	IN LA FROM RTE 10 TO RTE 101 WIDEN FOR HOV LANE & MODIFY RAMPS, ADD NEW WB ON RAMP AT SUNSET & HOV INGRESS/EGRESS AT SANTA MONICA BLV(EA 12030, PPNO 0851G, SAFETLU # 1302, 1934)	$950,000
S	LA0D193	405	GARVEE DEBT PAYMENTS RTE. 405 - WATERFORD AV. TO RTE 10 - AUX LNE:LOS ANGELES - WATERFORD AV. TO RTE 10 - CNSTRCT S/B AUX LNE & S/B HOV LNE (2001 CFP 8354) (EA 195900 ,PPNO 2333).	$34,470

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	LA0D194	405	GARVEE DEBT SERVICE PAYMENTS: IN LOS ANGELES ON ROUTE 405/101 CONNECTOR GAP CLOSURE (2001 CFP 7248, 2001 CFP 8347) (EA# 20120K, PPNO 2336). (BOTH RIP & IIP)	$30,787
S	LA0D332	405	IN LOS ANGELES: FROM LA TIJERA BLVD TO JEFFERSON BLVD; ADD AUXILIARY LANE PPNO: 3348 EA: 24130	$38,711
S	LA0D77	405	CITY OF L.A.-AT ROUTE 405 & US 101 INTERCHANGE. CONSTRUCT FREEWAY CONNECTOR FROM SB RTE 405 TO NB&SB US 101 & ADD AUX LANE FROM BURBANK TO NB 101 CONNECTOR (EA# 199610, PPNO 2787)	$246,180
S	LAE0574	605	STUDY - CONSTRUCT I-605 INTERCHANGE CAPACITY IMPROVEMENTS IN IRWINDALE	$1,920
S	2009	710	NEAR SOUTH PASADENA FROM ROUTE 10 TO ROUTE 210 - PARTIAL RIGHT OF WAY FOR NEW 6 LANE FREEWAY WITH 2 HOV LANES (EA# 020090, PPNO 0219M) (PROPERTY MANAGEMENT)	$4,185
S	18790	710	RTE 10 TO DEL MAR BLVD OVERCROSSING FOR THE 710 FWY - WORK ON ENVIRONMENTAL CLEARANCE ISSUES & FUND INITIAL DESIGN. (EA# 187901, PPNO# 2215) (IIP) SAFETEA #2193	$15,352
S	LA0B952	710	ROUTE 710 EXPANSION BETWEEN THE PORTS IN THE CITY OF LONG BEACH TO CESAR CHAVEZ O/C IN EAST LOS ANGELES (EA 24990 PPNO 3612)	$40,500
S	LA996143	710	RTE 710 PCH TO DOWNTOWN L.B., PAVEMENT RECON, MEDIAN, LANDSCAPING IMPROVE (EA 2203U, 23640, PPNO: 2945,3248)	$6,600
S	LA996347	710	I-710/FIRESTONE BLVD.OVER LA RIVER BRIDGE WIDEN ON-RAMP MOD. & SNDWALL ALONG I-710 FROM FIRESTONE BLVD. TO SOUTHERN AVE. PHASE IV (HBRR: 53C1972) WIDEN FROM 4.7M TO 6.4M.	$19,000
S	LAE3773	710	RECONSTRUCT I-710 INTERCHANGES AS PART I-710 CORRIDOR IMPRVMNT PRGRM PROPOSING 4-TRUCK LNS (PORTS- RAIL YARDS), 10 GENERAL LNS (PORTS- SR60), & ARTERIAL IMPRVMNTS	$6,875
L	LA000373	0	AVIATION BLVD FROM MANHATTAN BEACH BLVD TO ARBOR VITAE WIDEN FROM 4 TO 6 LANES (ISTEA, 102-240, 1991)	$13,984
L	LA000389	0	DEL AMO BLVD FROM MADRONA AVE TO CRENSHAW BLVD CONSTRUCT 0 TO 4 LANES NEW GRADE SEPARATION (CFP 6361, 4314; PPNO 2371).	$30,084
L	LA000512	0	GERALD DESMOND BRIDGE REPLACEMENT (SAFETEA-LU PNRS #14 - SEC 1301B) (ALSO LA0F011)	$824,000
L	LA000720	0	ROSECRANS/AVIATION INTERSECTION (AVIATION WIDEN TO 3 LANES IN EACH DIRECTION) RAILROAD BRIDGE WIDENING (C-I:44419) SAFETEA-LU # 3799 AND # 563	$12,553
L	LA000800	0	HBRR LOCAL BRIDGE LUMP SUM FOR 2004/2005 - (PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126,127,128, EXEMPT TABLES 2 & 3)	$394,000
L	LA002738	0	BIKEWAY/PEDESTRIAN BRIDGE OVER LA R RIVER AT TAYLOR YARD CLASS I (CFP 738, 2077) (PPNO# 3156)	$5,000
L	LA0B100	0	LUMP SUM TRANSPORTATION ENHANCEMENT ACTIVITIES (EXCLUDING CATEGORY 7) (PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126,127,128, EXEMPT TABLES 2 & 3)	$84,273

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA0B103	0	CONSTRUCT GOLDEN VALLEY ROAD FROM SOLEDAD CANYON TO NEWHALL RANCH ROAD.0 TO 6 LANES. LESS THAN 0.5 MILES- INCLUDES BRIDGE OVER SANTA CLARA RIVER SAFETEA-LU # 3786 AND # 216	$35,300
L	LA0B104	0	GOLDEN VALLEY ROAD - NEWHALL RANCH ROAD TO PLUM CANYON ROAD. 0 TO 4 LANES APPROXIMATELY 1.5 MILES. (E/P, PS/E ONLY)	$11,000
L	LA0B106	0	NEWHALL RANCH ROAD FROM GOLDEN VALLEY ROAD TO BOUQUET CANYON ROAD. 0 TO 6 LANES APPROXIMATELY 1.5 MILES	$38
L	LA0B414	0	NEAR PASADENA - ARROYO SECO PARKWAY - SCENIC BEAUTIFICATION OF HISTORIC CORRIDOR (PPNO# 3403) (MTA CFP 4128)	$3,345
L	LA0B7050	0	GATEWAY CITY FORUM/CARSON STREET SIGNAL SYNCHRONIZATION-VARIETY OF MULTI-JURISDICTIONAL TRAFFIC SIGNAL IMPROVEMENT, INCREASE MOBILITY & RELIEVE EXSTNG CNGESTN ON CARSON. PPNO2845.	$1,909
L	LA0B7061	0	EAGLE ROCK ATSAC/ATCS PRJCT-TIE THE IMPROVEMENT ALONG HOLLYWOOD W & OLIVE AV, FORMING A CONTI. SYSTM FRM SR-134 TO I-5 AND CONCT SEVRL BURBANK AREAS. PPNO 2858.	$8,725
L	LA0B7065	0	NORTH HOLLYWOOD ATSAC/ATCS PRJCT-BOUNDED BY ROSCOE BLVD & TUXFORD ST, AND VICTORY & VAN NUYS BLVD WILL REPLACE OBSOLETE TRAFFIC SIGNAL CNTRLLERS, INSTL CONDUIT & CABLES. PPNO 2859.	$12,289
L	LA0B7096	0	CROSS VALLEY CONNECTOR GAP CLOSURE-I-5 TO COPPER HILL DR.-INCL.ENVIRONMENTAL STUDIES & PREPARATION OF PLANS, SPEC., & ESTIMATES FOR A FWY CONNECT. 0 TO 8 LANES (E/P & PS/E ONLY)	$925
L	LA0B7234	0	OVERLAND BRIDGE -- OVER I-10 FREEWAY -WIDEN W SIDE OF OVERLAND AVE BRIDGE OVER THE I-10 FROM NATIONAL BLVD/I-10 WESTBOUND RAMPS TO NATIONAL BLVD/NATIONAL PLACE. PPNO 2863	$6,641
L	LA0B7322	0	WHITTIER GREENWAY TRAIL-ACQUISITION, DESIGN, AND CONSTRUCTION MANAGEMENT OF 2 MILES CLASS I BIKE/PED PATH ON AN ABANDONED RAIL ROW FROM NORWALK TO FIVE POINTS.PPNO 2872	$3,805
L	LA0B7335	0	SANTA CLARA RIV. REGIONAL TRAIL-DESIGNING OF 7 MILES OF CLASS I BIKE/PED PATH ALONG THE NORTH SIDE OF THE RIVER FROM I-5 ON THE WEST TO DISCOVERY PARK ON THE EAST (E/P & PS/E ONLY)	$700
L	LA0C40	0	VALLEY BLVD/WEST MISSION ROAD I-710 CONNECTOR: CONSTRUCT FRONTAGE RD IN I-710 ALIGNMENT FROM VALLEY BLVD & WEST MISSION RD IN THE EXIS.T STATE ROW & BUILD GRADE SEP, 2 LN EA DIR.	$15,796
L	LA0C51	0	RANCHO VISTA BLVD/AVE P WIDENING FROM FAIRWAY DR. TO 30TH ST. EAST - 4 TO 6 LANES; W/SIDEWALKS, BIKE LNS, LANDSCAPING, SIGNAL MODIFICATION, DRAINAGE IMPROVE. (E/P,PS/E ONLY)	$893
L	LA0C53	0	HOLLYWOOD INTERMODAL TRANSPORTATION AND PUBLIC PARKING CENTER ON HAWTHORNE AVE. BETWEEN HIGHLAND AVENUE AND NORTH ORANGE DRIVE (EXIST 500 SP PARK STRUCTURE).TCRP#49.2	$48,150
L	LA0C57	0	ACE/GATEWAY CITIES-CONSTRUCT GRADE SEP. AT PASSONS BLVD IN PICO RIVERA (& MODIFY PROFILE OF SERAPIS AV,)(PART OF ALAMEDA CORR EAST PROJ.)SAFETEA-LU HPP # 1666 (TCRP #54.3)	$44,530

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA0C8009	0	TORRANCE BLVD. AT MAPLE AVE. INTERSECTION ; CONSTRUCT EASTBOUND LEFT-TURN LANE, WESTBOUND RIGHT-TURN LANE, AND NORTHBOUND THROUGH-LANE.	$717
L	LA0C8012	0	ROUTE 5: I-5 WESTERN AVENUE I/C PHASE I -REALIGNMENT OF I-5 NB OFF & ON RAMPS @ WESTERN. NB EXIT RAMP BEGINS AS 2 AND WIDENS TO 4 LANES AT FLOWER ST. (EA# 1786A0, PPNO 2120)	$31,087
L	LA0C8024	0	GARFIELD AV WIDENING AT GLENDON WAY. ON EASTSIDE OF GARFIELD FRM I-10 W/B OFFRAMP WIDEN RAMP 1 LN TO APPRX 600' N. OF GLENDON. PROVIDES ADDT'L LNE FOR TRAFFIC MERG ONTO GARFIELD	$779
L	LA0C8026	0	FREMONT AVE WIDENING AT E/B I-10. WIDEN EAST SIDE OF FREMONT FROM I-10 E/B OFF-RAMP TO HELLMAN AVE TO PROVIDE TRAFFIC MERGING ONTO HELLMAN. WIDEN RAMP 1 LANE.	$1,066
L	LA0C8031	0	TAMPA AVE BRDGE WIDENING. WIDEN RIVER CROSSING FROM 4 LNS TO 6 LNS ON TAMPA AVE BRDGE, CONSTRUCT BIKE UNDERPASS PPNO 3090 3376 REP (BRIDGE # 53C1335)	$7,300
L	LA0C8036	0	HYPERION AV UNDR WAVERLY DR BRDGE RPLCEMNT. WILL REMVE & REPLACE WAVERLY BRIDGE W/ A LONGER SPAN STRCTR, PROVIDE SAFTY SHLDERS, BIKE LNES & SIDEWKS ALONG HYPERION. PPNO 3092.	$14,422
L	LA0C8037	0	SOTO ST BRIDGE OVER MISSION RD & HUNTINGTON DR DEMOLITION PROJECT WILL REALIGN THE STREET TO INCREASE TRAFFIC FLOW ADDING A BIKE LANE. PPNO 3093 3380 (BRIDGE #53C0013)"	$20,981
L	LA0C8038	0	LAUREL CANYON BLVD BRDGE OVER TUJUNGA WASH WIDENING. PROJECT WILL WIDEN LAUREL CANYON BRDGE FROM 4 TO 6 LANES TO IMPROVE LOS. ADD SHOULDERS & 6 FT BIKE LNES. PPNO 3094 3379 AB 3090	$3,700
L	LA0C8042	0	VANOWEN ST BRDGE WIDENING & REHAB. PRJCT WILL WIDEN EXISTING BRIDGE TO MATCH THE STREET IT WILL ALLOW INC TRAFFIC FLOW AND SAFETY. CONSTRUCT BIKE PATH UNDER. PPNO 3095 3378 AB 3090	$14,917
L	LA0C8046	0	BURBANK BLVD WIDENING-LANKERSHIM BLVD TO CLEON AVE. FROM VARYING ROADWAY WIDTH TO FULL SECONDARY HIGHWAY STANDARDS. FROM 1 LN TO 2 LNS IN EACH DIRECTION. PPNO 3097.	$15,417
L	LA0C8047	0	BALBOA BL & VICTORY BL INTERSECTION IMPROVEMENTS; INSTALL A 2ND LEFT TURN TURN. SOUTHBOUND 600 LINEAR FT., NORTHBOUND 300 FT. PPNO 3098.	$2,420
L	LA0C8048	0	CAHUENGA BLVD WIDENING - MAGNOLIA BLVD TO LANKERSHIM BLVD. -2 PARKING LANES & CONTINOUS MEDIAN TURNING LANE. NON-CAPACITY ENHANCING. PPNO 3099.	$12,998
L	LA0C8049	0	ANAHEIM ST WIDENING-FARRAGUT AVE TO DOMINGUEZ CHANNEL. PROJECT WILL WIDEN THE EXISTING ROADWAY FROM 4 TO 6 LANES AND UPGRADE THE HIGHWAY TO MAJOR HIGHWAY STANDARDS. PPNO 3100.	$2,000
L	LA0C8050	0	WILSHIRE BL CORRDR IMPRVMNTS-SELBY AV TO COMSTOCK AV WIDEN WILSHIRE BL INTERSECT IN WESTWOOD AT KEY SIGNALIZED INTERSECT & INSTALL RAISED LANDSCAPE MEDIAN. PPNO 3101.	$7,479
L	LA0C8052	0	SAN FERNANDO ROAD WIDEN BETWEEN AVE 26TH & UNION PACIFIC DR. PROVIDE LEFT TURN LANEA AT 12 INTERSECTION. PPNO 3102.	$1,131

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA0C8053	0	SAWTELLE BLVD WIDENING AT VENICE BLVD. WIDEN WEST SIDE OF SAWTELLE BLVD, RESTRIPE TO PROVIDE A N-BOUND LEFT TURN LANE FROM SAWTELLE BLVD TO W-BOUND VENICE BLVD. (PPNO 3131).	$864
L	LA0C8054	0	SKIRBALL CNTR DR WIDENG FRM I-405 FWY TO MULHOLLAND DR. OVERPASS, PRVIDE ADDN'L S/B LNE, RESTRIPE SKIRBALL CTR DR. FRM 1 S/B, 2 N/B LANES TO 2 LANES IN EACH DIRECTN. (PPNO 3132).	$2,200
L	LA0C8055	0	MOORPARK AVE WIDENING - WOODMAN AVE TO MURIETTA AVE.- EXISTING 1 LN EA. DIR. ADD 1 LANE IN EA. DIR. & UPGRADE HIGHWAY TO SECONDARY HWY STANDARDS. PPNO 3103.	$6,788
L	LA0C8056	0	NASH ST/DOUGLAS ST, & ROSECRANS AVE. INTERSECTION IMPROVEMENTS. PROVIDES A 2ND W-BOUND L- TURN LANE & SEPARATE E-BOUND R- TURN LANE ON ROSECRANS AVE AT NASH ST/PRKWAY. (PPNO 3129).	$5,382
L	LA0C8057	0	REHAB. 1ST ST BRIDGE TO MAINTAIN 4 TRAFFIC LANES AND STRENGTHEN EXISTING GIRDERS (UNDER A SEPARATE CONSTR PHASE) TO ACCOMODATE THE LIGHT RAIL.PPNO 3104 (53C1166)	$67,000
L	LA0C8058	0	LA TIJERA BRIDGE WIDENING OVER I-405 FREEWAY; PROVIDE SIDE-BY-SIDE DUAL LEFT -TURN LANES IN EAST & WESTBOUND DIRECTION ONTO FREEWAY RAMPS.	$14,515
L	LA0C8063	0	RIVERSIDE DR. VIADUCT REPLACEMENT. REPLACEMENT OF EXISTING 2-LANE BRIDGE WITH A 4 LANE FLARE NEW ROUNDABOUT & BIKE PATH - WILL RESULT IN INCR. CIRCULATION. PPNO 3105 (53C0160)	$18,000
L	LA0C8064	0	SAN FERNANDO MISSION BLVD WIDENING BET SEPULVEDA BLVD & I-5 FWY. FROM 1 LANE TO 2 LANES IN EACH DIRECTION.PPNO 3106.	$2,471
L	LA0C8075	0	CESAR CHAVEZ / LORENA / INDIANA INTRSCTN IMPRVMNT - RECNSRTRCTN OF COMPLICATED 5-LEGGED SIGNAL-CONTROLLED, FOR TRAFFIC SAFETY AND TRAFFIC FLOW IMPROVEMENT PPNO 3107.	$10,933
L	LA0C8079	0	NASH ST/DOUGLAS ST ONE-WAY TO TWO-WAY CONVERSION. CONVERT ONE-WAY COUPLET SYSTEM TO A TWO-WAY STREET.	$5,000
L	LA0C8082	0	HAWTHORNE AT SEPULVEDA INTERSECTION ; INSTALL WESTBOUND RIGHT-TURN LANE TO MITIGATE PEDESTRIAN CONFLICTS AND TO IMPROVE OPERATION OF INTERSECTION.	$465
L	LA0C8083	0	190TH ST AT ANZA AVE & INGLEWOOD AVE INTERSECTION ENHANCEMENT; INSTALL ADD'L LEFT-TURN LANES TO PROVIDE DUAL LEFT-TURN LANES.	$405
L	LA0C8084	0	WINNETKA AVE BRDGE WIDEN & REHAB. - WIDEN THE RIVER CROSSING FROM 4 TO 6 LANES, & ADD BIKE ROUTE ON SHOULDER, CONSTRUCT BIKE UNDERPASS. PPNO 3108 3377 AB 3090 REP (53C1388)	$6,100
L	LA0C8086	0	NORTH SPRING ST BRIDGE WIDENING & REHABILITATION. INCLUDES WIDENING THE STRUCTURE & THE WEST APPROACH FROM 4 TO 6 LANES, BIKE ROUTES WILL BE MADE PART OF THE SHOULDERS (53C0859).	$41,000
L	LA0C8087	0	MAGNOLIA BLVD WIDENING-CAHUENGA BLVD TO VINELAND AVE. FROM THE EXISTING ROADWY STANDARD TO SECONDARY HWY STANDARD. FROM 1 LANE TO 2 LANES IN EACH DIRECTION. (PPNO 3110).	$4,030
L	LA0C8089	0	BARHAM / CAHUENGA / INTERSECTION WIDEN IMPROVEMENT, FOR LEFT/RIGHT TURN IMPROV. PPNO 3111.	$1,495

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA0C8090	0	VERMONT AV BRIDGE WIDENING N/B ACCESS FREEWAY. WIDEN VERMONT AV BRIDGE AT RTE 101 FWY BY PROVIDING ADDTNL LEFT-TURN LANE ON N/B VERMONT AV ONTO N/B RTE. (PPNO 3112).	$11,109
L	LA0C8092	0	VALLEY VIEW AVE GRADE SPARATN AT BNSF RAILWAY SOUTH OF SAGE RD. CONSTRUCT A GRADE SPARATN FOR VALLEY VIEW AVE FROM EXSTNG BNSF TRACKS BY CONSTRCTNG A HWY UNDERPASS PPNO 3117 (3022)	$79,084
L	LA0C8094	0	PIER B ST INTERMODAL RAILYARD EXPANSION PROJECT. REALIGNMENT AND WIDENING OF PIER B STREET. (FOR EXPANSION OF PIER B ST INTERMODAL RAILYARD PHASE SEE PLAN PROJECT 100701)	$11,988
L	LA0C8095	0	CHERRY AVE. WIDENING PROJECT. BET 19TH ST AND PACIFIC COAST HIGHWAY BY WIDENING THE ARTERIAL FROM ONE TO TWO LANES IN EACH DIRECTION.(PPNO 3128). SAFETEA-LU #3203	$6,721
L	LA0C8096	0	CROSS VALLEY CONNECTOR GAP CLOSURE; I-5 TO COPPER HILL DR - INCLUDES THE CONSTRUCTION OF AN 8-LANE DIVIDED ARTERIAL, OUTSIDE CURB AND GUTTER, & DRAINAGE IMPROVEMENTS.	$25,957
L	LA0C8098	0	SANTA MONICA BLVD WIDEN FROM DOHENY DR TO WILSHIRE BLVD (WIDEN FROM 4 TO 5)	$2,550
L	LA0C8114	0	LA CNTY RIDESHARE SERVICES; PROVIDE COMMUTE INFO, EMPLOYER ASSISTANCE AND INCENTIVE PROGRAMS THROUGH CORE & EMPLOYER RIDESHARE SERVICES & MTA INCENTIVE PROGRAMS. PPNO 9003	$21,000
L	LA0C8120	0	SOUTH BAY FORUM TRAFFIC SIGNAL CORRIDORS PROJECT. DESIGN & CONSTRUCTION OF MULTI JURISDICTIONAL, SIGNAL SYSTEM IMPROVEMENTS ON REGIONAL ARTERIALS & ADVANCED ITS TECHNOLOGY.	$8,627
L	LA0C8121	0	SAN GABRIEL VALLEY FORUM TRAFFIC SIGNAL CORRIDORS PROJECT OF MULTI JURISDICTION- AL, SIGNAL SYS IMPRVMENT ON RE-GIONAL ARTERIALS USING CONVENTNAL & ADVANCED ITS.	$10,369
L	LA0C8122	0	CANOGA PARK ATSAC/ATCS PROJ. PROVIDE ATSAC/ATCS RELATED IMPRVMNTS TO 105 SIGNALIZED INTERSCTIONS THRU IMPLEMEN-TATION OF A COMPUTER BASED REAL TIME TRFFIC SIGNAL MONITORING CTRL SY	$12,593
L	LA0C8123	0	SAN PEDRO ATSAC/ATSC PROJ. PROVIDE ATSAC/ATCS RELATED IMPRVMNTS TO 57 SIGNALIZED INTERSECTIONS THRU IMPLEMENTA-TION OF A COMPUTER-BASED REAL TIME TRFFC SIGNAL MONITORING CNTRL SYS.	$8,600
L	LA0C8124	0	WILMINGTON ATSAC/ATCS PROJECT; IMPROVEMENTS TO 70 SIGNALIZED INTERSECTIONS THROUGH IMPLEMENTATION OF COMPUTER BASED REAL TIME TRAFFIC SIGNAL MONITORING AND CONTROL SYSTEM.	$9,000
L	LA0C8126	0	HARBOR-GATEWAY ATSAC/ATCS PROJECT; IMPROVEMENTS TO 109 SIGNALIZED INTERSECTIONS THROUGH IMPLEMENTATION OF A COMPUTER-BASED REAL TIME TRAFFIC SIGNAL MONITORING & CONTROL SYSTEM.	$11,142
L	LA0C8127	0	GATEWAY CITIES FORUM TRAFFIC SIGNAL CORRIDORS PHASE IV	$10,412

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA0C8128	0	FOX HILLS AREA TRAF SIG SYNCH EFFORT & CITY-WIDE AUTO TRAF SIGNAL CONTROL AND MONITORING PROJECT. INCORPORATE 11 SIGNALIZED INTERSECTIONS INTO AN ATSAC / ADAPTIVE TRAF CONTROL SYS.	$1,851
L	LA0C8129	0	PORTS OF LONG BEACH AND LOS ANGELES ATMS/ATIS PROJ.. ADDT'N OF UP TO 16 CLOSED CIRCUIT TV CAMERAS & 9 CHANGEABLE SIGNS TO IMPROVE TRAFFIC OPERATIONS ON THE: I-710, I-110, SR47/103.	$11,499
L	LA0C8130	0	INCIDENT MANAGEMENT - TRAVELER INFORMATION SUBSYSTEM; INSTALLATION CONSISTS OF 4 STATIONARY ELECTRONIC CHANGE-ABLE MESSAGE SIGNS & A HIGHWAY ADVISORY RADIO SYSTEM.	$2,559
L	LA0C8133	0	RESEDA ATSAC/ATCS PROJ.PROVIDE ATSAC/ATCS TYPE IMPROVEMENTS TO 107 SIGNALIZED INTERSECTIONS THRU IMPLEMENTATION OF A COMPUTER-BASED REAL TIME TRAFFIC SIGNAL MONITORING & CONTRL SYS	$13,204
L	LA0C8135	0	INGLEWOOD ITS DEPLOYMENT AND INTEGRATION PROJECT. CITYWIDE IMPLEMENTATION AND INTEEGRATION OF VARIOUS ITS TECH-NOLOGIES AND ELEMENTS.	$3,350
L	LA0C8147	0	SIERRA BIKEWAY RAILROAD OVERCROSSING. PROPOSE A .34 MILE CLASS 1 BIKE PATH PROVIDE A GRADE SEPARATION AT AVE. Q OVER THE UNION PACIFIC/METROLINK RAILS.(PPNO3456)"	$2,226
L	LA0C8156	0	SANTA CLARITA REG'L COMUTR TRAIL - I-5 TO FAIRWAYS DRIVE- CONSTRUCT & ACQUISITION OF 1.0 MI OF CLASS I BIKE PATH & BRIDGE RESTORATN ADJACENT TO SANTA CLARA.(PPNO 3127). NON-CAP.	$2,346
L	LA0C8159	0	LA CANADA FLINTRIDGE EAST/WEST BIKEWAY CORRIDOR. DESIGN AND CONSTRUCTION OF 3.42 MILES OF EAST/WEST DIRECTIONAL CLASS II BIKE LANES IN THE CITY OF LA CANADA FLINTRIDGE.	$49
L	LA0C8161	0	WHITTIER GREENWAY TRAIL: PICKERING BRIDE SEG 1 DEVT& SEG 3 P/E & DEVT. DESIGN, CONST& ACQUIST OF 2.86 MLES CLASS I BIKE/PED FAC ON ABANDONED ROW IN WHITTIER PPNO#3440-EA07-932045	$6,587
L	LA0C8163	0	BIKEWAY AND PEDESTRIAN IMPROVEMENTS. 1.2 MILE CLASS I BIKE/PED PATH FROM WALNUT AVE TO WILLOW ST AT THE BLUE LINE STATION. (PPNO# 3408)	$4,641
L	LA0C8164	0	EXPOSITION BLVD RIGHT-OF-WAY BIKE PATH-WESTSIDE EXTENSION. DESIGN AND CONSTRUCTION OF 2.5 MILES OF CLASS 1 BIKEWAY, LIGHTING, LANDSCAPING & INTERSECTION IMPROVEMENTS. (PPNO# 3184)	$2,567
L	LA0C8171	0	GAYLEY AVE BIKE LANES & STREET WIDENING. DESIGN AND CONSTRUCTION OF .25 MILES OF CLASS II BIKE LANES ON GAYLEY AVE FROM EXISTING BIKE LANES AT LEVERING AVENUE TO THE UCLA CAMPUS	$872
L	LA0C8209	0	HOLLYWOOD MEDIA DISTRICT-PED IMPRV. STRETTSCAPE ELEMNTS: LANDSCAP, PED LIGHT STAMPED XWALK, ON SANTA MONICA BVD F/M VINE ST TO HIGHLAND & HIGHLAND F/M MELROSE TO FOUNTAIN	$810
L	LA0C8993	0	SYSTEM PRESERVATION NEEDS ASSESMENT STUDY-TO WORK WITH SUB-REGIONS AND IND. JURISDICTIONS TO EVA. LOCAL SYSTEM PRESERVATION & CAPACITY ENHANCING(NEEDS/ISSUES.	$263
L	LA0D108	0	L.A RIVER BIKE PATH PHASE 1C- CLASS 1 BIKEWAY ALONG WEST BANK OF LA RIVER- FLETCHER DR TO BARCLAY ST INCLUDES LIGHT-ING, SIGNAGE, PAVEMNT MARKINGS & FENCING (LA996245)(PPNO 5006)	$2,536

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA0D118	0	HIGHWAY BEAUTIFICATION PROJECT ALONG THE VENTURA FWY CORRIDOR IN AGOURA HILLS (NATIONAL SCENIC BYWAY PROJECT) AT KANAN ROAD INTERCHANGE INCLUDES LANDSCAPING	$1,243
L	LA0D119	0	PRELIMINARY ENGINEERING (PE) & CONSTRUCT THE WIDENING OF WASHINGTON BLVD. BRIGES OVER SAN GABRIEL RIVER & UPRR. BRIDGES WILL BE WIDENED FROM 4 LNS TO 6 LNS. (53C0122 & 53C0082)	$7,095
L	LA0D120	0	ARTESIA TRAFFIC ENHANCEMENT PROJECT FOR ARTESIA BLVD, PIONEER BLVD AND 183RD STREET RESURFACING, STREETSCAPING, TRAFFIC CALMING, ANGLE-PARKING SIGNALS, ETC.	$1,192
L	LA0D129	0	SAN GABRIEL BLVD REHAB PHASE II - FROM BROADWAY TO LAS TUNAS: PVEMNT RECONSTRCT & OVERLAY, CONCRT REPRS, MEDIAN ISLND INSTALL W/LANDSCAPING AND TREES. SAFETEA-LU HPP # 2811	$2,000
L	LA0D145	0	TIERRA SUBIDA WDENG FRM AV S TO PALMDALE BL. 2 TO 4 LNES FRM AV S TO AV Q-8; 4 TO 6 LNS FRM AV Q-8 TO PALMDALE BL; WITH SDWLKS, BIKE LNS, LNDSCAPNG, DRANGE IMPRVMNTS & TRAFC SGNLS.	$16,000
L	LA0D167	0	BROADWAY IMPRVMNTS FRM 168TH ST. TO NORTH CITY LIMIT (ALONDRA BLVD). CNSTRCT RAISED CNCRTE MEDIANS W/ LANDSCAPE & HARDSCAPE, ADD CURB & GUTTER & SIDEWLK ,RECNSTRUCT EXSTNG PAVEMNT.	$1,070
L	LA0D168	0	FIGUEROA ST IMPROVEMENT, VICTORIA ST TO ALONDRA BLVD.RECONSTRUCT EXISTING ASPHALT PAVEMENT,CURB & GUTTER & SIDE-WALK; ST WIDEN NON-CAPACITY W/IN EXIST R/W NEXT TO CURB & GUTTER.	$3,450
L	LA0D169	0	BROADWAY IMPROVEMENTS FROM MAIN ST TO GRIFFITH ST. CONSTRUCT RAISED CONCRETE MEDIANS W/ LANDSCAPE, HARDSCAPE,CURB & GUTTER & SIDEWALK. ADD 1 LANE EA DIR.FOR 2 EA. DIR.	$1,203
L	LA0D170	0	BROADWAY IMPROVEMENTS FROM GRIFFITH ST TO ALBERTONI. CONSTRUCT RAISED CONCRETE MEDIANS WITH LANDSCAPE AND HARDSCAPE, ADD CURB & GUTTER AND SIDEWALK. RECONSTRUCT EXSTING PAVEMNT.	$1,980
L	LA0D171	0	BROADWAY IMPROVEMENTS FROM ALBERTONI TO 168TH ST. CONSTRUCT RAISED CONCRETE MEDIANS WITH LANDSCAPE AND HARD-SCAPE, ADD CURB & GUTTER AND SIDEWALK. RECONSTRUCT EXSTING PAVEMNT.	$1,540
L	LA0D173	0	SEPULVEDA BLVD, ALAMEDA ST. TO EAST CITY LIMIT. STREET WIDENING, MEDIAN ISLANDS, WIDEN FROM 2 LANES TO 4 LANES. (53C0652)	$5,500
L	LA0D188	0	ARBOR VITAE STREET FROM LA BREA AVENUE TO PRAIRIE AVENUE BY RECONSTRUCTING/UPGRADING PAVEMENT, NEW C&G, SIDE-WALKS, DRIVEWAYS, PEDESTRIAN RAMPS, LANDSCAPING AND STREET LIGHTING.	$3,532
L	LA0D189	0	PARAMOUNT BLVD AND GREENWOOD AVE. IMPROVEMENT; PROVIDE ADDTIONAL TURNING LANES AT SR 60 ON/OFF RAMP AT PARA-MOUNT BLVD INTERSECTION, FREEWAY ACCESS IMPROVEMENT	$2,445
L	LA0D190	0	NO. ATLANTIC BLVD - NEWMARK AVE TO HILLMAN AVE - CHANNELIZATION WIDEN TO SIX LANES OF OPERATION TO INCLUDE ACCEL-ERATION & DECELARATION LANE OPRTN MDIFCTION; FROM 4 TO 6 LNS.	$686

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA0D209	0	LA BREA AVENUE, FROM FLORENCE AVE TO CENTURY BLVD AND IMPERIAL HIGHWAY, FROM PRAIRIE AVE TO VAN NESS AVE BY RECON-STRUCTING/UPGRADING PAVEMENT, NEW C&G, SIDEWALKS.	$5,977
L	LA0D260	0	STATE ROUTE 90 CONNECTOR ROAD TO ADMIRALTY WAY/ ADMIRALTY WAY WIDENTHE ROAD TO 5-LANES (NORTHBOUND) FROM VIA MARINA TO BALI WAY (8,000 FEET), WIDEN THE ROAD TO 6-LANES (	$6,000
L	LA0D279	0	ATLANTIC BLVD. BRIDGE OVER THE L.A RIVER 5/8 MILE N SLAUSON AVE, WIDEN 6 LANE BRIDGE TO ADD RIGHT TURN LANE (BRIDGE #53C0252)	$8,334
L	LA0D293	0	MEYER ROAD IMPERIAL/LEFFINGWELL ET AL. ROAD REHABILITATION	$1,200
L	LA0D313	0	20TH & CLOVERFIELD STREETSCAPE, PEDESTRIAN AND TRAFFIC IMPROVEMENTS. INCLUDES STREET RESURFACING, NEW CURBS, SIDEWALKS, LANDSCAPING, CROSSWALKS, BUS STOP IMPROVMENTS ETC.	$5,217
L	LA0D318	0	ESPLANADE STREESTCAPE IMPROVEMENTS INCLUDES RESURFACING, RELOCATING CURB & GUTTER FOR ADDITIONAL LANDSCAPING, STREET GUTTER AND STORM DRAINS SAFETEA HPP# 1662	$3,500
L	LA0D323	0	ACQUISITION AND CONSERVATION OF APPROXIMATELY 15 ACRES OF UNDEVELOPED OPEN SPACE LANDS TO PROVIDE FOR WILDLIFE HABITATS AND IMPROVED NONMOTORIZED RECREATIONAL TRAIL OPPORTUNITIES	$350
L	LA0D324	0	I-5 CORRIDOR ARTERIES-LAKEWOOD IMPROVEMENT BETWEEN I-105 FWY NEAR DALEN ST. & GARDENDALE ST. IMPRVMNTS INCL RECONSTRUCTION OF RDWAY PAVEMNT, WIDEN EXISTING LANE WIDTH.	$2,637
L	LA0D326	0	DEPARTMENT OF PARKS & RECREATION-KENNETH HAHN TRAIL/WALKWAY PROJECT RT 19-021 PROJECT WILL PROVIDE A ONE MILE TRAIL CONNECTING THE PARK ACCESS BRIDGE WITH VISTA PACIFICA;"	$89
L	LA0D330	0	RIO HONDO TRAIL-GARVEY ST. BRIDGE RT19-022. REFURBISHMENT OF A 160X12 BRIDGE & CONSTRUCT 3 FT CONCRETE RETAINING WALL & ADDITION OF COMPACTED GRANITE (NON-CAPACITY PROJECT).	$200
L	LA0D333	0	ANAHEIM STREET PLANNING, COORDINATION AND DESIGN OF OPERATIONAL & STREETSCAPE (NON-CAPACITY IMPROVEMENTS).	$566
L	LA0D336	0	SR14/AVENUE K INTERCHANGE IMPROVEMENTS. WIDEN NORTHBOUND OFFRAMP AND 15TH STREET WEST. WIDEN NB OFFRAMP & 15TH STREET WEST& WIDEN N/B OFFRAMP FROM 3 TO 4 LANES AT AVE K/15TH ST-W.	$8,600
L	LA0D344	0	WIDENING OF THE REYES ADOBE ROAD OVERCROSSING OF THE 101 FREEWAY FROM 3 LANES TO 6 LANES, ALONG WITH BIKE LANES AND SIDEWALKS	$12,118
L	LA0D388	0	PARAMOUNT BLVD BETWEEN COVEN ST. AND CANDLEWOOD ST-PAVEMENT REHAB. RAISED MEDIAN AND LANDSCAPE SAFETEALU # 2288	$1,350
L	LA0D390	0	ARTERIAL STREET AND FREEWAY-TO-FREEWAY INTERCHANGE IMPROVEMENTS AT SR-47 (VINCENT THOMAS BRIDGE) AND I-110; AND MODIFICATION TO I-110 NB ON-OFF RAMPS TERMINI AT JOHN S. GIBSON BLVD	$67,800

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA0D391	0	VINCENT THOMAS BRIDGE STUDY - DEVELOP AND ANALYZE ALTERNATIVES TO INCREASE NEEDED CAPACITY. SAFETEA-LU HPP # 297 NON-CAPACITY	$1,600
L	LA0D392	0	GRAND AVE BEUTIFICATION/BETTERMENT PHASE II	$1,587
L	LA0D393	0	GRAND AVENUE/SR 57/60 INTERCHANGE RECONSTRUCTION MODIFY GRAND AVENUE TO ADD ADDITIONAL LANES FOR NH AND SB TRAFFIC, WIDEN THE EXISTING GRAND AVE OVERPASS	$33,000
L	LA0D420	0	SUNSET OVERLOOK TRAILHEAD AREA IN HAHAMONGNA WATERSHED PARK NEAR THE DEVIL'S GATE DAM (GRANT FROM RECREATIONAL TRAILS PROGRAM)	$271
L	LA0D434	0	SHERMAN WAY MEDIAN ISLAND INSTALLATION-DE SOTO TO TOPANGA CANYON: THIS SAFETY ENHANCEMENT PROJECT WILL PROVIDE FOR CONCRETE MEDIAN ISLANDS ALONG THE PROJECT LIMITS TO DETER VEHICLE	$318
L	LA0D439	0	INTELLIGENT TRANSPORTATION SYSTEM LOGISTICS & SYSTEMS MANAGEMENT, WILL PRODUCE AN ITS MASTERPLAN FOR THE GATE-WAY CITIES SUBREGION WITH AN EMPHASIS IN GOODS MOVEMENT	$513
L	LA0D440	0	RETROFIT THE EXISTING CROSSROAD PARKWAY BRIDGE OVER THE UPRR RAILROAD TRACKS AT ROUTE 605 FREEWAY AREA.	$1,050
L	LA0D441	0	RECONFIGURATION OF VALLEY BLVD ON-AND-OFF-RAMPS TO THE 605 FREEWAY TO IMPROVE MOBILITY, CIRCULATION, AND RELIEF THE CURRENT CONGESTION AT VALLEY BLVD.	$28,012
L	LA0D442	0	RETROFITING THE EXISTING TWO-LANE WIDE PECK ROAD BRIDGE OVER THE SAN GABRIEL RIVER FWY (ROUTE 605) & WIDEN IT TO AC-COMODATE 4 LANES (2 EACH DIRECTION) TO ELIMINATE BOTTLENECK	$12,000
L	LA0D443	0	REHABILITATING THE EXISTING AZUSA AVE. BRIDGE OVER THE UPRR TRACKS AND VALLEY BLVD, APPLY NEW PAINT TO THE EXISTING STEEL BRIDGE TO AVOID FURTHER WEATHER CORROSION.	$1,600
L	LA0D445	0	10TH STREET WEST GAP CLOSURE FROM AVENUE L TO AVENUE M. WIDEN GAPS FROM 1 TO 3 LANES.	$4,000
L	LA0D446	0	AVENUE K GAP CLOSURE FROM 60TH STREET WEST TO SR14. WIDEN GAPS FROM 1 TO 2 LANES OR 3 LANES.	$7,390
L	LA0D447	0	AVENUE L GAP CLOSURE FROM 60TH STREET WEST TO SR14, WIDEN GAPS FROM 1 TO 2 LANES TO 3 LANES	$6,690
L	LA0D448	0	MAJOR ARTERIAL GAP CLOSURES. AVENUE J, 36TH TO 32TH WEST. 20TH WEST, LANCASTER BLVD TO NEWGROVE ST. 20TH STREET EAST, AVENUE J-4 OT J-8	$2,902
L	LA0D449	0	AVENUE M AND SR14 OVERCROSSING IMPROVEMENTS. WIDENING AVENUE M FROM 2 TO 7 LANES FROM 10TH STREET WEST TO 15TH STREET WEST.	$13,650
L	LA0D450	0	GRAND AV/SR 57/60 INTERCHANGE RECONSTRUCTION- WIDEN GRAND AV WB RAMP:SB ADD 1 RT & 1 THROUGH LN (2 EXSTNG) & 2 LT (2 EXSTNG); NB ADD 1 LT,1 THROUGH LN (2 EXSTNG) & 1 RT (1 EXSTNG)	$200,000

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA0D458	0	PROJECT WILL PROVIDE FOR THE CONSTRUCTION OF A 3,25 MILE BIKEWAY ALONG THE RESTORED BANKS OF THE PACOIMA WASH.	$2,000
L	LA0D459	0	AV. N- 45TH ST WEST TO ANTELOPE VALLEY FWY RECONSTRUCTION; WIDENING, ADD 12' RTL POCKETS AT INTERSECTION AV. 0 AND 20TH ST WEST & TWO 12' LTL AT INTRSECTN OF AV. N- 45TH ST WEST	$3,354
L	LA0D460	0	AV. 0 -- 30TH ST WEST TO 10TH ST WEST- RECONSTRUCT & WIDEN, INCLUDING EXIST BRIDGE WIDEN 1 TO 2 ; ADD 12' RT ONLY POCKETS @ INTERSECTION AV. 0 & 20TH ST WEST & 12' 2-WAY LTL ONLY	$2,520
L	LA0D461	0	RECONSTRUCT- THE OLD ROAD FROM HILLCREST PARKWAY TO LAKE HUGHES RD & WIDEN FROM 40' TO 68', 2 LANES & A 5' CLASS II BIKELANE IN EA DIR & STRIPPED MEDIAN (FROM 2 TO 4 LNS 2 EA DIR)	$10,700
L	LA0D464	0	IMPROVEMENTS AT INTERSECTION OF COLIMA RD & HACIENDA BLVD: RECONSTRUCT/ RESTRIPE FOR 3ED THROUGH LANE ON WB & EB APPROACHES; RESTRIPE FOR 3ED THROUGH LANE ON NB APPROACH	$314
L	LA0D465	0	COLIMA RD- HALIBURTON RD/ CITY OF DIAMOND BAR CB ROAD WIDENING: RESTRIPE FOR 3ED THROUGH LANE ON EB APPROACH (HACIENDA BLVD- FULLERTON RD) & WB APPROACH (FULLERTON- CAMINO DEL SUR)	$600
L	LA0D466	0	FULLERTON RD AND PATHFINDER RD INTERSECTION IMPROVEMENTS: NB APPROACH CONVERT RTL TO FREE RTL; SB APPROACH RESTRIPE FOR 3ED THROUGH LANE AND TO ADD SECOND LTL AT INTERSECTION	$482
L	LA0D467	0	HACIENDA BLVD & GALE AV INTERSECTION IMPROVEMENTS: RESTRIPE FOR 2ND LTL ON EB & WB APPROACHES; RECONSTRUCT/ RESTRIPE FOR 2ND LTL ON NB AND SB APPROACHES & ADD RTL NB APPROACH	$429
L	LA0D468	0	GOODS MOVEMENT NHS TRUCK IMPACTED INTERSECTIONS PHASE IV (CFP # 7193)	$13,164
L	LA0D469	0	SOUTH BAY TRAFFIC SIGNAL SYNCHRONIZATION	$18,406
L	LA0D472	0	INTELLIGENT TRANS. SYSTEM LOGISTICS & SYSTEMS MANAGEMENT FOR GATEWAY CITIES (PROJ VII.J.5.1) THAT WILL PRODUCE A REG. ITS MASTERPLAN W/EMPHASIS ON GOODS MOVEMENT (E/P & PS/E ONLY)	$500
L	LA0D473	0	DOCKWEILER DR EXTENSION FROM LYONS AV TO LEONARD TREE LANE: CONSTRUCT A 4-LANE FACILITY (2 LANES IN EACH DIRECTION), OUTSIDE CURB & GUTTER, AND DRAINAGE IMPROVEMENTS	$11,126
L	LA0D474	0	REHABILITATION OF ARTESIA BLVD. FORM KNOTT AV. TO VALLEY VIEW AV. PRIOR TO I-5 IMPROVEMENTS	$616
L	LA0D476	0	VIA PRINCESSA EXTENSION FROM MAGIC MOUNTAIN PKWY TO GOLDEN VALLEY RD: CONSTRUCT APPROXMTLY A 1-MILE FACILITY (3 LANES IN EACH DIRECTION), OUTSIDE CURB & GUTTER, & DRAINAGE IMPRVMT	$22,602
L	LA0D477	0	CONSTRUCT IMPROVEMENTS FOR SR-14 INTERCHANGE AT GOLDEN VALLEY ROAD. DIAMOND CONFIRGURATION, TWO RAMPS, IMPROVEMENTS INCLUDE WIDENING OF BRIDGE OVERCROSSING, NEW SIGNALS, RAMP MOD	$7,370
L	LA0D478	0	RECONSTRUCT OF WASHINGTON BLVD FROM I-5 FWY TO THE WEST; UPGRADE TRAFFIC SIGNALS AND IMPROVE THE EXISITING PAVEMENT	$1,200

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA0F003	0	LOS ANGELES STREET, OVER BIG DALTON WASH, 0.5 MI S IRWINDALE AVE. WIDEN 2-LANE BRIDGE TO 4-LANE BRIDGE, ADD SHOULDERS, UPGRADE BRIDGE RAILING (# 53C0676)	$11,649
L	LA0F004	0	DELL AVE, OVER CARROLL CANAL, 0.2 KM S OF VENICE BLVD. REHABILITATE 1 LANE BRIDGE AND WIDEN TO 2 LANE BRIDGE, ADD SIDEWALKS, UPGRADE BRIDGE RAILINGS. (# 53C1688)	$3,500
L	LA0F005	0	DELL AVENUE, OVER LINNIE CANAL, 0.25 KM S OF VENICE BLVD. REHABILITATE 1 LANE BRIDGE & WIDEN TO 2 LANE BRIDGE, ADD SIDEWALKS, UPGRADE BRIDGE RAILINGS (# 53C1689)	$4,000
L	LA0F006	0	DELL AVENUE, OVER SHERMAN CANAL, 0.25 MI S VENICE BLVD. REHABILITATE 1 LANE BRIDGE & WIDEN TO 2 LANE BRIDGE ADD SIDEWALKS, UPGRADE BRIDGE RAILINGS. (# 53C1691)	$4,000
L	LA0F007	0	HYPERION AVE. OVER GLENDALE BL SB, LA RIVER, SOUTHBOUND GLENDALE. SEISMIC RETROFIT & RECONFIGURE SIDEWALKS, RESTORE HISTORIC BRIDGE RAILINGS (NO BRIDGE WIDENING) (# 53C1881)	$12,719
L	LA0F008	0	GLENDALE BLVD. OVER L.A RIVER, REHABILITATE 2 LANE BRIDGE & WIDEN TO INCLUDE SHOULDERS, SIDEWALKS, AND RESTORE HISTORIC BRIDGE RAILINGS (NON CAPACITY) # 53C1883)	$12,000
L	LA0F009	0	GLENDALE BLVD. - OVER LA RIVER. REHABILITATE 2 LANE BRIDGE & WIDEN TO INCLUDE SHOULDERS, SIDEWALKS, RESTORE HISTORIC RAILINGS (NON-CAPACTIY PROJECT) (# 53C1884)	$10,000
L	LA0F010	0	OLD ROAD, OVER SANTA CLARA RIVER, 1/4 MI N MAGIC MTN PKWY. REPLACE 4 LANE BRIDGE W/ 6 LANE BRIDGE (HBRRP PAY FOR 4 LANE, & NEWHALL LAND &FARMING PAYS FOR 2 ADDIT. LANES) (# 53C0327	$21,500
L	LA0F011	0	OCEAN BLVD. OVER ENTRANCE CHANNEL, UP RR, 1.0 MI E STATE ROUTE 47. REPLACE EXISTING 5 LANE GERALD DESMOND BRIDGE WITH NEW 6 LANE BRIDGE (BRIDGE #53C0013) (ALSO LA000512)	$26,500
L	LA0F016	0	PURCHASE, INSTALL, AND INTEGRATE OPTICOM PRIORITY CONTROL SYSTEM TO EXISTING TRAFFIC CONTROLLERS AT VARIOUS LOCATIONS WITHIN CITY LIMITS. (SAFETEA-LU#2345)	$217
L	LA0F019	0	PURCHASE OF BUS BENCHES, TRASH CANS, AND SMALL SHELTERS FOR VARIOUS TRANIST STOPS THROUGHOUT CITY OF LAKEWOOD.	$493
L	LA0F020	0	LOWER ARROYO SECO TRAIL AND TRAILHEAD IMPROVEMENT PROJECT (GRANT FROM RECREATIONAL TRAILS PROGRAM)	$258
L	LA0F030	0	I-110 FREEWAY/ 'C' STREET INTERCHANGE IMPROVEMENTS- MODIFICATION OF EXISTING INTERCHANGE	$24,798
L	LA0F033	0	PLANNING SERVICES ARROYO SECO PARKWAY SCENIC CORRIDOR & IMPLEMENTATION OF CORRIDOR MGMT PLAN. SCENIC BYWAY ORGZN & VISTOR INTERPRETATION & MARKETING PLAN.FHWA PRJ SB-2004-CA-51312	$372
L	LA0F038	0	IMPROVEMENTS TO THIS INTERSECTION INCLUDE DURATHERM DECORATIVE CROSSWALKS AND RESURFACING ON WESTERN AVE.	$151

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA0F039	0	NORTH BROADWAY IS A MAIN COMMERCIAL CORRIDOR IN THE INNER NEIGHBORHOOD OF LINCOLN HEIGHTS. PROJ. WILL REVITALIZE THIS THROUGH FARE & COMMUNITY BY INST. SIGNIFICANT ST. ENHANCEMENTS	$97
L	LA0F040	0	ANGELS FLIGHT RAILWAY, IN THE CITY OF L.A. ALONG AN EASEMENT FROM HILL ST. TO ABOVE OLIVE ST. BETWEEN 3RD AND 4TH ST. FOR THE DESIGN OF A NEW FABRICATION PROPULSION SYSTEM	$203
L	LA0F041	0	WILL ADD STREETLIGNTS ON LEMON GROVE RECREATION CENTER ON THE EAST HOLLYWOOD COMMUNITY, MAKING PROPERTY OWNERS, COMMUNITY MEMBERS, PEDESTRIANS AND MOTORISTS FEEL SAFER	$293
L	LA0F042	0	MOBILITY SOURCE AIR POLLUTION REDUCTION REVIEW (MSRC)-FLORENCE AVE - THE OLD RIVER/TECUM RD TO OVAL DR/HAWES ST. DESIGN & CONSTRUCT MULTIJURIDICTION SIGNAL SYS IMPROVEMENTS	$823
L	LA0F043	0	MOBILITY SOURCE AIR POLLUTION REDUCTION REVIEW COMM (MSRC)-LOS ANGELES COUNTY/SANTA CLARITA ITS	$1,142
L	LA0F062	0	DESIGN AND CONST. OF REAL-TIME PARKING INF./GUIDANCE SYSTEM. PHASE I COVERS SANTA MONICA AREA, BOUNDED BY COLORADO AVE., OCEAN AVE., WILSHIRE BLVD AND LINCOLN BLVD.	$700
L	LA0F063	0	LA-FULLERTON TRIPLE TRACK & GRADE SEP (ROSECRANS) (IN SANTA FE SPRINGS, LA ON THE BNSF LINE. CONSTRUCT TRIPLE TRACK & GRADE SEPARATION AT ROSECRANS AND MARQUARDT AVE. (PPNO 2002A)	$20,700
L	LA29202N	0	MTA TIP ADMINISTRATION PLANNING, PROGRAMMING AND MONITORING FOR STIP PROJECTS THROUGH OUT LA COUNTY (200 CFP 7116 STATE ONLY 3594,2001 CFP 8401, PPNO 9001)	$43,152
L	LA450022	0	LUMP SUM PROJECT FOR HIGHWAY SAFETY, REHABILITATION & RECONSTRUCTION, OPERATION, AND SYSTEM BETTERMENTS ACTIVITIES.	$246,324
L	LA57000	0	OCEAN BLVD/TERMINAL ISLAND FREEWAY INTERCHANGE (PORT OF LONG BEACH -- PADP #30) (T21-#742)	$28,371
L	LA960001	0	ANAHEIM ST FROM FARRAGUT AVE TO DOMINGUEZ CHNL WIDENING WIDEN FROM 4 TO 6 LANES (E/P,PS/E ONLY)	$480
L	LA960002	0	BARRINGTON AVE - ALLEY NORTH OF GORHAM AVE TO DARLINGTON AVE WIDENING TO PROVIDE LEFT TURN LN WIDEN FROM 2 TO 4 LANES	$750
L	LA960005	0	FIGUEROA ST N/O 146TH ST TO W COMPTON BL WIDENING, CURB & GUTTER WIDEN FROM 4 TO 6 LANES	$706
L	LA960018	0	BEVERLY BOULEVARD MONTEBELLO BLVD TO W/O REA DRIVE RECONSTRUCT & WIDEN WIDEN FROM 4 TO 6 LANES	$3,650
L	LA960021	0	PECK ROAD OVER 605 FWY WIDEN BRIDGE WIDEN FROM 2 TO 4 LANES	$3,675
L	LA960134	0	AVENUE S HIGHWAY 14/DOWNING ST (WIDEN 4 TO 6 LANES) 3 LANES IN EA. DIR.).	$7,200
L	LA960142	0	LINDERO CANYON ROAD FROM AGOURA RD TO VIA COLINAS RAMP WIDENING, RAMP/BRIDGE RECONFIGURATION, CONSTRUCT BIKE PATH, RESTRIPE STREET, INTERSECTION WIDENING, SIGNAL COORDINATION (TEA21-#65). FROM 3 NB/2 SB TO 3 NB&SB.	$16,788

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA960170	0	MAGIC MOUNTAIN PARKWAY EXTENSION FROM SAN FERNANDO RD TO VIA PRINCESSA: CONSTRUCT A NEW ROAD WITH 3 LANES IN EACH DIRECTION	$21,101
L	LA960176	0	HARRY S BRIDGES BLVD RELOCATION/CONSOLIDATION OF STREETS, STREET INTERSECTIONS, TRAFFIC CHANNELIZATION AND SIGNAL-IZATION (TEA21-#978)	$51,050
L	LA960179	0	SOUTH WILMINGTON GRADE SEPARATION	$61,500
L	LA962314	0	EAST SAN GABRIEL VALLEY SOM PILOT PROJECT TRAFFIC SIGNALS INTERCONNECT PROJECT	$9,071
L	LA962316	0	SELAC-TRAFFIC SIGNAL SYNCH. CORRIDORS PROJECT SIGNAL SYNCH & BUS SPEED IMPROVEMENT PROJECT	$30,309
L	LA9708004	0	SANTA CLARITA PARKWAY FROM BOUQUET CYN RD/SOLEDAD CYN INSTALL NEW ROADWAY (0 TO 4 LANES) (2.5 MILE)	$17,550
L	LA9708289	0	AVE G, FROM RT 14 TO 25TH ST WEST WIDEN FROM 2 TO 6 LANES (0.2 MIME) (TOTAL 6 LANES BOTH DIR). INCLUDES INTER CHANGE IMPROVEMENTS.	$10,800
L	LA9711031	0	CASTAIC CUTOFF FROM LAKE HUGHES RD TO SAN FRANCISQUITO CANYON RD CONTRUCT NEW ROAD 4 12-FOOT LANES AND 10-FOOT SHOULDERS	$7,600
L	LA974083	0	CHANDLER/BURBANK BIKE PATH-WHITEOAK TO PIERCE COLLEGE A 3.2 MILE CLASS I BIKEWAY ON MTA'S CHANDLER/BURBANK RAIL RIGHT-OF-WAY WILL IMPROVE NON-MOTORIZED ACCESS (COMBINED W/LA974078)	$3,749
L	LA974100	0	U.S. 101 INTERJURISDICTIONAL BIKE LANE GAP CLOSURE CONSTRUCTION 4.5 MILES OF BIKEWAY IMPROVEMENTS TO CLOSE SEVERAL GAPS WITHIN A 12 MILE CORRIDOR(TEA21-#69)(PPNO# 3147)	$1,569
L	LA974221	0	GATEWAY CITIES TRAFFIC SIGNAL CORRIDORS PROJECT PHASE II IMRPOVE REGIONAL TRAFFIC MOBILITY REDUCE CONGESTION ALONG 7 MAJOR TRAVEL CORRIDOR	$16,756
L	LA974242	0	SOUTH BAY SIGNAL SYNCHRONIZATION IMPROVEMENTS PHASE III INSTALLATION OF COMMUNICATIONS INFRASTRUCTURE	$10,612
L	LA974243	0	WEST SAN GABRIEL VALLEY SIGNAL SOM AND BUS SPEED IMPROVEMENTS PROVIDE LOCAL INTERSECTION IMPRVMNT SIGNAL SYN-CHRONIZATION PASSIVE TRABSIT PRIORITY IMPRVEMENT	$5,872
L	LA974244	0	SAN GABRIEL VALLEY TRAFFIC FORUM PROJECT PHASE III TRAFFIC SIGNAL SYNCHRONIZATION IMPROVEMENTS ON SELECTED ARTERI-ALS IN THE 12 CITY FORUM AREA	$5,109
L	LA974245	0	POMONA VALLEY SIGNAL SOM AND BUS SPEED IMPROVEMENTS TRAFFIC SIGNAL SYNCHRONIZATION FAIRPLEX TRAFFIC MANAGEMENT PLAN	$3,859
L	LA9811102	0	AVENUE S RAIROAD OVERPASS WEST OF SIERRA HIGHWAY WIDEN BRIDGE FROM 4 TO 6 LANES.	$56,800
L	LA9811103	0	SR 14 AND AVENUE S INTERCHANGE IMPROVEMENTS; UPGRADE TO RAMP	$5,691
L	LA990351	0	IMPROVE GLENDALE BLVD/FWY RT 2 STREET RECONFIG/REDSIGN, TRAFFIC MGMT. NEIGHORHOOD SAFETY MEASURES (TEA21-#413)	$14,916

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA990352	0	PALISADES BLUFF STABILIZATION PROJ. (TEA21-#453)	$10,800
L	LA990353	0	ALAMEDA CORRIDOR EAST - NOGALES ST GRADE SEP (T21-491, SGVCG)	$7,800
L	LA990358	0	EL SEGUNDO EMPLOYMENT CTR ITS PRJ (T21-1477)	$5,721
L	LA990359	0	GRADE SEP XINGS SAFETY IMPR; 35- MI FREIGHT RAIL CORR. THRGH SAN.GAB. VALLEY - EAST. L.A. TO POMONA ALONG UPRR ALHAMBRA &L.A. SUBDIV - ITS 2318 SAFETEA #2178;1436 #1934 PPNO 2318	$531,412
L	LA990360	0	LA LOMA BRIDGE CONTRUCTION (TEA21-#1208) THE LENGHT OF THE PROJECT IS 379 FT. RECONSTRUCT THE ONE LANE IN EACH DIRECTION.	$11,500
L	LA990361	0	RECREATIONAL TRAIL CREATION (TEA21-#779)	$7,391
L	LA990764	0	JOB ACCESS & REVERSE COMMUTER PROGRAM OPERATIONS, CAPITAL ACQUISITION	$67,768
L	LA990926	0	SCHABARUM TRAIL USDOT RECREATIONAL TRAIL PROGRAM	$110
L	LA990927	0	WALNUT CREEK BRIDGE USDOT RECREATIONAL TRAIL PROGRAM	$87
L	LA9910008	0	BOUQUET CYN OVER SANTA CLARA RIVR TO 500 FT FROM VALENCIA BL - REHAB, WIDEN, LINING RESTORATION FROM 6 TO 8 LANES AND A BIKE LANE -- 525 FT.	$5,502
L	LA9910012	0	SAN GABRIEL BLVD REHAB PHASE I - FROM MISSION TO BROADWAY: PVEMNT RESONSTRCT & OVERLAY, CONCRT REPRS, MEDIAN ISLND INSTALL W/ LANDSCAPNG AND TREES. SAFETEA-LU HPP # 471	$2,000
L	LA9910013	0	VIA PRINCESSA FROM GOLDEN VALLEY RD TO RAINBOW GLEN FROM 0 - 6 LANES; LESS THAN ONE MILE	$46,935
L	LA9910014	0	VIA PRINCESSA FROM CIRCLE J TO MAGIC MTN PRKWAY. FROM 0 - 6 LANES; LESS THAN ONE MILE.	$11,650
L	LA9910016	0	SANTA CLARITA PKWY FROM SOLEDAD CYN RD TO VIA PRINCESSA (1.6 MILES); FROM 0 TO 6 LANES.	$13,100
L	LA9910017	0	SANTA CLARITA PKWY FROM VIA PRINCESSA TO STATE HWY 14 (1 MILE) FROM 0 TO 6 LANES.	$11,100
L	LA996168	0	TRANSIT CTR. STAT LANDSCAPING LANDSCAPE NEW PARCEL CREATED BY REALIGNMENT OF FRONT STREET (PPNO 3628)	$179
L	LA996174	0	HISTORIC DEPOT SURF. TRANS MUSEUM DEV SURFACE TRANS MUSEUM, MEETING ROOMS, AND ARTIFACTS (PPNO #3633)	$106
L	LA996275	0	WEST BRANCH GREENWAY MULTI-MODAL TRANS. CORRIDOR DESIGN AND CONSTRUCT 2.5 MILE CLASS I BIKE PATH ALONG MTA-OWNED SANTA ANA BRANCH ROW INCL. PEDESTRIAN AND LANDSCAPING (3145)	$2,141
L	LA996282	0	REGIONAL CENTER CORRIDOR/GAP CLOSURE SIGNAL INTERCONNECT	$1,335

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA996283	0	AUTOMATED INCIDENT MANAGEMENT SYSTEM	$2,115
L	LA996285	0	SOUTH BAY BIKE TRAIL RECONSTRCT AT PLAYA DEL REY - DESIGN AND RECONSTRCT SEGMENT OF THE TRAIL AT DOCKWEILER STATE BEACH.	$459
L	LA996288	0	SAN GABRIEL RVR. BIKE TRAIL REHAB PHASE I - FROM WHITTIER NARROWS DAM TO FLORENCE AVE.	$449
L	LA996289	0	SOUTH BAY BIKE TRAIL PED. ACCESS RAMPS/SIDEWALKS - DESIGN OF RAMPS, WALKWAYS TO PROVIDE ACCESS TO THE STH. BAY TRAIL AT DOCKWEILER STATE BEACH (2006 STIP)	$2,221
L	LA996292	0	SOUTH BAY FORUM TRAFFIC SIGNAL CORRIDORS - DESIGN AND CONSTRCT. MULTIJURISDICT. TRAFFIC SIGNAL SYNCH. ON REGIONAL ARTERIALS IN THE SOUTH BAY AREA	$8,633
L	LA996294	0	SAN GABRIEL VALLEY FORUM TRAFFIC SIGNAL CORRIDORS: DESIGN AND CONSTRCT OF MULTIJURISDICT. TRAFFIC SIGNAL SYNCH. ON REGIONAL ARTERIALS IN THE SAN GAB. VALLEY AREA OF L.A. CNTY.	$9,047
L	LA996295	0	GATEWAY CITIES TRAFFIC SIGNAL CORRIDORS PHASE III: DESIGN & CONSTRUCT MULTIJURIS. SIGNAL SYSTEM IMPROVMENTS ON REGIONAL ARTERIALS IN THE GATEWAY CITIES	$12,132
L	LA996299	0	WESTCHESTER TRANSPORTATION MGMT. ENHANCEMENTS (ATCS) - UPGRADE THE EXISTING AUTOMATED TRAFFIC SURVEILLANCE AND CONTROL SYSTEM	$4,127
L	LA996304	0	ATSAC HYDE PARK EAST: APPROX 63 SIGNALIZED INTERSECTIONS	$8,952
L	LA996305	0	ATSAC HYDE PARK WEST: APPROX. 69 SIGNALIZED INTERSECTIONS	$10,564
L	LA996322	0	DWNTWN. SHORELINE DR. TRAFFIC MGMT. SYSTEM: DEPLOYMENT OF ITS ELEMENTS IN THE DWNTWN AREA TO RESPOND TO SPECIAL GENERATOR TRAFFIC.	$3,000
L	LA996324	0	ITS IMPROVEMENTS: LAKE AVENUE AND DEL MAR BLVD.	$963
L	LA996328	0	CCTV CAMERA INSTALLATION	$461
L	LA996330	0	SBCOG - DOUGLAS ST. GAP CLOSURE/RAILROAD GRAD`E SEPARATION.PPNO 2377. (HP # 46) (91 APP ACT, 101-516, 1990)	$37,924
L	LA996340	0	MISSION BLVD. GRADE SEPARATION AT SR. 71(FROM UPRR UNDERCROSSING TO 9TH ST. MISSION BLVD FROM WESTERN TO CURRAN PLACE (CFP 6340, 8400). PPNO 2232. SAFETEA-LU # 511 (PPNO 2232)	$47,983
L	LA996343	0	U.S. 101 FWY/KANAN RD. INTERCHANGE IMPROVEMENTS - ADD 1 LANE TO NB OFF RAMP (1 TO 2). SAFETEA-LU # 3099	$24,460
L	LA996348	0	WIDEN FIRESTONE BLVD BRDGE OVER THE RIO HONDO CHANNEL AND MINOR STREET WIDENING BETWEEN THE BRIDGE AND GARFIELD AVE.PPNO 2362. (53C1973)	$15,686
L	LA996363	0	I-5/MAGIC MT. PKWY (SR-126) INTERCHANGE RECONSTRUCTION: CONSTRCT. S/B AUXILLARY LANE TO THE OFF-RAMP. WDN MAG. MTN PKWY AT FREEWAY (FROM 6 TO 8 LANES). (PPNO 2364 3705).	$34,857

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LA996390	0	SEPULVEDA BLVD. FROM CENTINELA AVE. TO LINCOLN BLVD - WIDEN SEPUL BLVD. BET. LINCOLN AND CENTINELA	$11,621
L	LA996393	0	EAST DOWNTOWN TRUCK ACCESS IMPROVEMENTS: WIDENINGS, IMPRVMNTS, STRIPING, AT 6 LOCATIONS IN THE EAST DOWNTOWN L.A. AREA	$2,153
L	LA996415	0	UPPER 2ND ST- ENHANCE CIRCULATION W/IN THE BUNKER HILL AREA FROM GRAND AVE TO OLIVE ST (FROM 0 TO 2 LANE IN EACH DIRECTION -- 350 FT.). PPNO 2375.	$5,550
L	LA996418	0	WIDEN NORTH LEG OF SEPULVEDA BLVD/BURBANK BLVD. INTRSECTION TO ALLOW FOR STRPING TWO EXCLSVE R- TURN LNS & WDN W. LEG OF INTRSCTN TO ALLOW STRIPING FOR TWO R- TURN LNES. PPNO 2369.	$2,459
L	LA996425	0	SEPULVEDA BLVD. REVERSIBLE LANE, BIKE LANE, AND INTERSECTION IMPROVEMENT	$8,301
L	LA996427	0	VALLEY BLVD. GRADE SEPARATION	$54,285
L	LA996500	0	SIGNAL SYSTEM TECHNICAL TRAININGS	$575
L	LAE0001B	0	CONSTRUCT SAFE ACCESS TO STREETS FOR BICYCLISTS AND PEDESTRIANS INCLUDING CROSSWALKS, SIDEWALKS, AND TRAFFIC CALMING MEASURES	$500
L	LAE0076	0	CONSTRUCT ADD'L VEHICLE PARKING (200 TO 400 SPACES), BICYCLE PARKING LOT AND PEDESTRIAN REST AREA AT THE TRANSIT CENTER	$2,006
L	LAE0084	0	ADAMS STREET REHABILITATION PROJECT	$372
L	LAE0134	0	INTERSECTION AT BALBOA BLVD & SAN FERNANDO RD.MINOR WIDEN TO PROVIDE TURN LANES, & REALIGNMENT OF BALBOA RD.RIGHT-TURN LANE AT BALBOA BLVD.	$500
L	LAE0180	0	LAUREL CANYON BLVD BETWEEN HAMLIN STREET AND VICTORY BLVD. PROJECT WILL PROVIDE FOR PEDESTRIAN SAFETY AND BEAUTIFICATION TREATMENT. ELEMENTS INCLUDE LANDSCAPED MEDIAN ISLANDS.	$1,200
L	LAE0191	0	DESIGN AND CONSTRUCT 2.5 MILE BIKEWAY AND PEDESTRIAN PATH FROM MILLS AVE. TO VALLEY HOME IN WHITTIER	$5,040
L	LAE0266	0	RECONSTRUCT I-710 SOUTHERN TERMINUS OFF RAMP.CURRENT FUNDING APPLIED ONLY TOWARDS THE P/E & PRELIMINARY DESIGN PHASE.CONSTRUCTION FUNDING TO BE SOUGHT LATER (E/P,PS/E ONLY)	$158,849
L	LAE0284	0	SOUTHWEST SAN FERNANDO VALLEY RD AND SAFETY IMPROVEMENTS. PROJECT WILL PROVIDE ASPHALT CONCRETE RESURFACING OF VARIOUS STREETS. PROJECT WILL NOT ENHANCE TRAFFIC CAPACITY.	$2,300
L	LAE0319	0	NEIGHBORHOOD TRAFFIC SAFETY IMPROVEMENTS, INCLUDING STREET LIGHTING AND OTHER PEDESTRIAN & TRANSIT ENHANCEMENT. ELYSIAN VALLEY NEIGHBORHOOD FROM QUEEN ST. ON THE NORTH, BARCLAY ST.	$1,400

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LAE0326	0	CREATION OF A RAISED MEDIAN ON ALONDRA BLVD.BETWEEN CLARK AND WOODRUFF TO IMPROVE TRAFFIC SAFETY AND EFFICIENCE. THE MEDIAN WILL PROVIDE LANDSCAPING, LIGHTING AND IRRIGATION	$385
L	LAE0340	0	SANTA ANITA AVE CORRIDOR IMPROVEMENTS PRJ. INSTALL NEW RIGHT AND LEFT TURN POCKETS, NEW TRAFFIC SIGNALS, INTERSECTION WIDEN AND NEW STRIPING AT FOOTHILL BLVD, LIVE OAK AVE, DUARTE	$3,000
L	LAE0346	0	CONSTRUCT BIKE PATH, LIGHTING AND SAFETY IMPROVEMENTS ON ROAD LEADING TO HANSEN DAM RECREATIONAL AREA (OSBORNE ST. BETWEEN SAN FERNANDO RD AND FOOTHILL BLVD.	$6,500
L	LAE0357	0	THE ADDITION OF A SECONDARY LEFT TURN LANE AND TRAFFIC SIGNAL AT THE INTERSECTION OF ROSEMEAD BLVD (STATE) AND TELSTAR AVE	$1,400
L	LAE0388B	0	CONSTRUCTION OF A TRAFFIC SIGNAL AT THE INTERSECTION OF INDEPENDENCE AVE. AND SHERMAN WAY.	$142
L	LAE0401	0	SILENT NIGHT GRADE CROSSING	$904
L	LAE0427	0	IN CITY OF LOS ANGELES, ON 103RD STREET FROM CENTRAL TO GRAHAM & CENTRAL AV. FROM 103RD STREET TO IMPERIAL HWY. PROJECT WILL PROVIDE STREETSCAPE, TRANSIT, AND PEDESTRIAN AMENITIES.	$4,000
L	LAE0479	0	FIRESTONE BLVD. FROM RYERSON AVE AND STEWART & GRAY RD. WIDEN SECTIONS OF FIRESTONE (BOTTLENECK FOR TURN LANES; ST RECONSTRUCTION, REHAB, & RESURFACE; & UPGRADE HANDICAP RAMPS	$2,000
L	LAE0485	0	LAKEWOOD BLVD BETWEEN TELEGRAPH AND 5TH STREET. WIDEN SECTIONS OF LAKEWOOD FOR TURN LANES, STREET RECONSTRUCTION, REHABILITATION, AND RESURFACING; AND UPGRADE HANDICAP RAMPS	$11,500
L	LAE0489	0	PASADENA AVE / MONTEREY RD PARTIAL GRADE SEPERATION - PRELIMINARY ENGINEERING - FEASABILITY	$288
L	LAE0509	0	SCENIC PRESERVATION AND RUN-OFF MITIGATION IN THE SANTA MONICA MOUNTAINS NATIONAL RECREATION AREA NEAR PCH AND US101	$1,440
L	LAE0518	0	IN THE CITY OF LOS ANGELES, ON BROADWAY W/S FROM 4TH ST. TO 235 N/O 4TH ST, AND 4TH ST FROM BROADWAY TO 120 W/O BROADWAY. REMOVE AND REPLACE SIDEWALKS INCLUDING PORTIONS THAT SPAN.	$2,500
L	LAE0550	0	REHABILITATE STREET SURFACE OF CEDROS AVE BETWEEN BURBANK BLVD AND MAGNOLIA BLVD. WILL PROVIDE FOR ASPHALT CONCRETE RESURFACING. NON CAPACITY ENHANCING AND ALL ON LA ROW	$49
L	LAE0595	0	STREET CLOSURE AT CHEVY CHASE DRIVE. SAFETY IMPROVEMENTS AT THE CHEVY CHASE AND AT-GRADE CROSSING AT DORAN, BROADWAY, GRANDVIEW AND SONORA AT-GRADE CROSSING.	$919
L	LAE0688	0	WIDEN WILMINGTON AVE. FROM 223RD ST. INCLUDING I-405 RAMP MODIFICATION. IMPROVE WILMINGTON AVE./I-405 INTERCHANGE BY ADDING A NEW NORTHBOUND ON-RAMP AND WIDENING OF WILMINGTON.	$28,000

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LAE0701	0	DEVELOP AND IMPLEMENT TRAFFIC CALMING MEASURES FOR TRAFFIC EXITING THE I-710 INTO LONG BEACH	$1,920
L	LAE0726	0	THIS PROJECT WILL STUDY A POSSIBLE GRADE SEPARATION AT THE VANOWEN/EMPIRE/CLYBOURN RAILROAD CROSSING. (E/P & PS/E ONLY)	$1,000
L	LAE0732	0	RIVERSIDE DRIVE NON-CAPACITY IMPROVEMENTS BETWEEN VAN NUYS BLVD AND TILDEN AVE.	$400
L	LAE0881	0	STUDY, ENVIRONMENTAL REVIEW, PERMITS AND PRELIMINARY ENGINEERING FOR A PEDESTRIAN BRIDGE OVER ATLANTIC BLVD IN THE CITY OF MONTEREY PARK (E/P,PS/E ONLY)	$600
L	LAE0882	0	WIDEN PORTION OF THE STREET 5 FT. TO MATCH EXISTING ULTIMATE WIDTH OF 84 FT. 2-INCH ASPHALT RUBBER OVERLAY & RECONSTRUCTION, RAISED LANDSCAPED MEDIANS, CONCRETE BUS PADS.	$2,333
L	LAE0884	0	IMPROVEMENTS TO THE SOUTH AZUSA AVE./AMAR RD. INTERSECTION (500 FEET IN ALL DIRECTIONS FROM INTERSECTION) IMPROVEMENTS INCLUDE WIDENING, ADDING LEFT LANE, TRAFFIC SIGNAL MODIFICATI	$1,200
L	LAE0891	0	ROSEMEAD BLVD/HWY 19 RENOVATION PROJECT - NON-CAPACITY	$104
L	LAE0896	0	COLIMA RD TO FULLERTON RD INTERSECTION IMPROVEMENT - RIGHT AND LEFT TURN LANES	$1,500
L	LAE0937	0	REHABILITATE STREET SURFACES IN SHERMAN OAKS; PROJECT WILL PROVIDE ASPHALT CONCRETE RESURFACING OF VARIOUS STREETS IN THE SHERMAN OAKS AREA. PROJECT WILL NOT ENHANCE TRAFFIC CAP.	$137
L	LAE0938	0	DESIGN AND CONSTRUCT REALIGNMENT OF BRAHMA DRIVE AT WINNETKA TO ELIMINATE HAZARDOUS CONDITION	$300
L	LAE0971	0	REALIGN FIRST ST BETWEEN MISSION RD. AND CLARENCE ST.	$1,250
L	LAE1023	0	IMPLEMENT VAN NUYS RD AND SAFETY IMPROVEMENTS. PROJECT WILL PROVIDE ASPHALT CONCRETE RESURFACING OF VARIOUS STREETS IN AND AROUND THE VAN NUYS AREA OF THE CITY. NO TRAFFIC CAPACITY	$500
L	LAE1093	0	SAN FERNANDO RD NORTH - PROVIDE AMENITIES FOR VEHICULAR TRAFFIC, PEDESTRIAN & BICYCLES FROM ASTORIA ST. TO SAYRE ST. CONSTRUCTION OF CONCRETE CURB, GUTTER, SIDEWALK - NON-CAPACITY	$1,060
L	LAE1138	0	CONSTRUCT VALLEY BLVD DRAINAGE IMPROVEMENTS: FROM WEST CITY LIMITS TO SANTA ANITA AV- INCLUDING NO CAPACITY INCREASE STREET RESURFACING	$2,710
L	LAE1142	0	IMPLEMENT ITS SUBREGIONAL MASTERPLAN: FOCUS INTEGRATING STATE, LOCAL, & PRIVATE SYSTEMS FOR REAL TIME TRAFFIC CONTROL & FREIGHT TRAVELER INFO, TRUCK SAFETY, SECURITY, & EMISSIONS	$4,800
L	LAE1148	0	LOS ANGELES REGIONAL DIESEL EMISSIONS REDUCTION PROGRAM FOR ENGINE RETROFIT PROVIDES INCENTIVE GRANTS TO OWNER OPERATORS OLD DIESEL TRUCKS TO UPGRADE EQUIPMENT TO REDUCE EMISSIONS	$800

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LAE1181	0	BURBANK BLVD AND WOODLEY AVE INTERSECTION IMPROVEMENTS - NON CAPACITY	$160
L	LAE1228	0	REPAIR ROSECRANS AND ALONDRA BRIDGES PER THE COUNTY OF LOS ANGELES TRIENNIAL INSPECTION REPORT.	$53
L	LAE1274	0	UPGRADE INTERSECTION ON BELLFLOWER @ ALONDRA AND ROSECRANS TO INSTALL LEFT-TURN PHASING (NORTH AND SOUTH BOUND)	$337
L	LAE1280	0	STUDY - ROADWAY IMPROVEMENTS WITHIN THE SOUTH BAY CITIES COASTAL CORRIDOR. (LEAD AGENCY SBCCOG) SAFETEA - LU # 1286	$6,392
L	LAE1285	0	REHABILITATE PAVEMENT ON AZUSA AVE AND SAN GABRIEL AVE	$480
L	LAE1296	0	LONG BEACH INTELLIGENT TRANSPORTATION SYSTEM	$2,880
L	LAE1321	0	COMPTON ARTERIAL RECONSTRUCTION AND IMPROVEMENT PROGRAM (NON-CAPACITY).	$3,840
L	LAE1388	0	BLOOMFIELD ST IMPROVEMENT FROM CARSON ST TO N CITY LIMIT. RESURFACE EXISTING AC PAVEMENT, SIGNING AND STRIPING, CONCRETE REPAIR, CONCRETE BUS PAD, LANDSCAPED MEDIAN, LOOP DETECTER	$460
L	LAE1390	0	RECONSTRUCT PARAMOUNT BLVD WITH MEDIANS AND IMPROVE DRAINAGE FROM ARTESIA BLVD TO CANDLEWOOD STREET	$575
L	LAE1401	0	RECONSTRUCT LONG BEACH BLVD WITH MEDIANS AND IMPROVED DRAINAGE FROM PALM AVENUE TO TWEEDY BLVD	$2,915
L	LAE1407	0	PLAZA DRIVE FROM VINCENT AVE. TO CALIFORNIA AVE. INCLUDING INSTALLATION OF TRAFFIC SIGNAL SYS AT INTERSECTION OF PLAZA DR. & CALIF. THE SYNC. OF TWO TRAFFIC SY, & ADD TURN LANES.	$721
L	LAE1440	0	RECONFIGURE SAN FERNANDO RD. FROM FLETCHER DR. TO I-5 FWY.	$6,450
L	LAE1509	0	CONSTRUCTION OF NEW ROADWAY LIGHTING ON MAJOR TRANSPORTATION CORRIDORS. SOUTHWEST SAN FERNANDO VALLEY RD & SAFETY IMPROVEMENT. VICTORY BLVD (OAKLAND TO RESEDA) TAMPA AVE	$1,000
L	LAE1531	0	CONSTRUCTION OF A SMART CROSSWALK SYSTEM AT THE INTERSECTION OF ARMINTA ST. AND MASON AVE.	$57
L	LAE1579	0	BROADWAY & LAS TUNAS INTERSECTION IMPROVEMENTS. REHAB BOTH INTERSECTIONS ACQUIRE CORNER CUTOFFS AND MAKE EVERYTHING ADA COMPLIANT.	$3,260
L	LAE1601	0	TRANSPORTATION ENHANCEMENT TO CHILDREN'S MUSEUM OF LOS ANGELES.	$1,200
L	LAE1609	0	STUDY REPORT FOR A NEW I-105 INTERCHANGE AT LAX. INTERCHANGE STUDY WOULD PROVIDE DIRECT TRAFFIC MOVEMENTS FROM THE WESTBOUND I-105 FWY OVER IMPERIAL HIGHWAY (E/P, PS/E ONLY)	$400

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LAE1610	0	RECONSTRUCT WHITTIER BLVD AND IMPROVE PARKWAY DRAINAGE FROM PHILIDELPHIA AVE TO FIVE POINTS IN WHITTIER	$1,632
L	LAE1633	0	STUDY REPORT FOR THE INTER. OF OLD RIVER SCHOOL RD, FIRESTONE BLVD & UNION PACIFIC RAILROAD. REVIEW/ANALYZE OPERATIONS & SAFETY ASPECTS, DESIGN OPTIONS ETC.(E/P & PS/E ONLY)	$500
L	LAE1655	0	LANDSCAPE AND IRRIGATE EAST BOUND 91 FREEWAY ON AND OFF RAMPS AT BELLFLOWER BL.	$260
L	LAE1696	0	RECONSTRUCTION OF THE STRAND STAIRWAYS IN THE CITY OF MANHATTAN BEACH TO IMPROVE BEACH ACCESS AND ACCOMMODATE INCREASED PEDESTRIAN TRAFFIC.	$1,920
L	LAE1697	0	CONSTRUCTION OF NEW ROADWAY LIGHTING ON MAJOR TRANSPORTATION CORRIDORS. NORTHEAST SAN FERNANDO VALLEY RD & SAFETY IMPROVEMENT. DEVONSHIRE STREET (LANGDON TO WOODMAN), SEPULVEDA BLV	$500
L	LAE1703	0	NORTHEAST SAN FERNANDO VALLEY RD AND SAFETY IMPROVEMENTS. PROJECT WILL PROVIDE ASPHALT CONCRETE RESURFACING OF VARIOUS STREETS IN THE NORTHEAST SAN FERNANDO VALLEY.	$211
L	LAE1816	0	BURBANK BLVD AND HAYVENHURST AVE INTERSECTION IMPROVEMENT - NON CAPACITY	$400
L	LAE1867	0	CONSTRUCTION OF SMART CROSSWALK AT THE INTERSECTION OF TOPANGA CANYON AND GAULT ST.	$57
L	LAE1883	0	STUDY - ORANGELINE CORRIDOR DEVELOPMENT PROJ - HIGH SPEED MAGLEV & STATION AREA DEVLOPMENT FROM NORTH LA TO SOUTH OC FOLLOWING SR14 AND FORMER PACIFIC RAILRD CORRIDOR	$336
L	LAE1903	0	RANDOLPH STREET IMPROVEMENTS BETWEEN WILMINGTON AVENUE AND FISHBURN FEASIBILITY STUDY .	$1,200
L	LAE1904	0	RECONSTRUCT AZUSA AVE AND SAN GABRIEL AVE FOR TWO WAY TRAFFIC IN AZUSA	$2,400
L	LAE1915	0	CONSTRUCT AND IMPROVE MEDIANS AND DRAINAGE ON IMPERIAL HIGHWAY FROM WEST BORDER TO EAST BORDER OF CITY OF LA MIRADA	$5,503
L	LAE1920	0	DEL AMO BLVD - FROM NORMANDIE AVE AND NEW HAMPSHIRE - RECONSTRUCT AND WIDEN . FROM 1 LANE EA. DIR TO 2 LANES IN EA DIR.	$3,000
L	LAE1933	0	ENHANCE BYZANTINE LATINO QUARTER TRANSIT PLAZAS AT NORMANDIE AND PICO, AND HOOVER AND PICO, LOS ANGELES BY IMPROVING STREETSCAPES, INCLUDING EXPANDING CONCRETE AND PAVING	$500
L	LAE1934A	0	CENTURY BLVD PEDESTRIAN SAFETY AND TRANSPORTATION IMPROVEMENTS.	$3,600
L	LAE1955	0	TRAFFIC SIGNAL UPGRADES ALONG THE US-101 FREEWAY RAMPS BETWEEN WINNETKA AVE AND VAN NUYS BLVD.	$400
L	LAE2024	0	REALIGNMENT LA BREA AV TO REDUCE CONGESTION: IMPROVEMENTS AT INTERSECTION WITH HILLCREST BLVD (6-LEG TO 4-LEG/ SIGNALIZED) & WITH TAMARACK AV (ADD SIGNAL)-	$3,168

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LAE2147	0	CONSTRUCTION OF NEW ROADWAY LIGHTING ON MAJOR TRANSPORTATION CORRIDORS. NORTHWEST SAN FERNANDO VALLEY RD & SAFETY IMPROVEMENT. LINDLEY AVE. (STRATHERN TO CHASE), ROSCOE BLVD	$1,000
L	LAE2157	0	CRENSHAW BLVD REHABILITATION. BETWEEN 182 ND ST & 190TH RIGHT TURN LANES NEAR I-405 RAMPS - NO NEW TRAVEL LANES.	$3,953
L	LAE2194	0	GREENLEAF ROW COMMUNITY ENHANCEMENT PROJECT DESIGN AND CONSTRUCTION OF BIKEWAY PED WALK WAY AND UPGRADE SIGNALIZATION	$3,840
L	LAE2198	0	AVALON BLVD INTERCHANGE MODIFICATION AT I-405 IMPROVING AVALON/I-405 INTERCHANGE BY CONSTRUCTING A NEW SOUTH-BOUND ON-RAMP, WIDENING NORTHBOUND OFF-RAMP AND ON-RAMP, PROVIDING ACCES	$21,150
L	LAE2246	0	RANCHO VIST BLVD -FROM 3RD ST EAST TO 8TH ST. WIDEN FROM 2 TO 3 EA. DIRTO ITS MAX AT-GRADE WIDTH @ INTERSECTION W/ METROLINK & UP RR CROSS & SIERRA HWY INTERSCTN. EAST/LOCKHEED WY.	$7,300
L	LAE2279	0	STREETSCAPE IMPROVMENTS ALONG CENTRAL AVE FROM WASHINGTON TO VERNON. INCLUDING PED LIGHTING, NEW BUS STOPS AND STREET FURNITURE, SIDEWALK WIDENING, TREES ETC.	$4,000
L	LAE2293	0	PARAMOUNT BLVD FROM GARDENDALE ST AND TELEGRAP RD -- ITS IMPROVEMENTS AS WELL AS MINOR WIDENING AT CRITICAL INTERSECTIONS TO ALLOW FOR SAID IMPROVEMENTS (NON-CAPACITY).	$1,000
L	LAE2299	0	HASKELL AVE FROM CHASE ST. TO ROSCOE BLVD IMPROVEMENTS - WIDEN FROM 2 TO 4 LANES .	$200
L	LAE2333	0	CONSTRUCT AND REPAIR LINING IN FOUR TUNNELS ON KANAN, KANAN DUME, AND MALIBU ROADS BETWEEN US-1 AND US-101	$3,000
L	LAE2378	0	ATLANTIC BLVD STREET IMPROVEMENTS FROM 52ND DRIVE TO 57TH STREET. RESURFACING EXISTING PAVEMENT, SIGNING AND STRIPING, MINOR CONCRETE REPAIRS, LANDSCAPING, TRAFFIC LOOPS.	$560
L	LAE2389	0	LAS TUNAS PED ENHANCEMENTS. INSTALL AND REPLACE ADA RAMPS. UPDATE CROSSING MARKING AND SIGNALS	$166
L	LAE2476	0	ENHANCE PEDESTRIAN ENVIRONMENT AND INCREASE SAFETY ALONG OLYMPIC BL BETWEEN VERMONT AVE AND WESTERN AVE. PROJ-ECT WILL PROVIDE VARIOUS STREETSCAPE IMPROVEMENTS ALONG LIMITS.	$2,000
L	LAE2515	0	WIDEN BUNDY DR. BETWEEN WILSHIRE AND SANTA MONICA BLVD - WIDEN FROM 2 LANES TO 4 LANES.	$4,250
L	LAE2517	0	WIDEN MAINE AVE. IN BALDWIN PARK ADD 1 THRU LN & 1 RIGHT TURN AND 1 LEFT TURN ONLY LANE (2517)	$360
L	LAE2538	0	KOREATOWN PAVILION GARDEN-TO ENHANCE THE NORTHEAST CORNER OF NORMANDIE AND OLYMPIC BL.	$250
L	LAE2591	0	INSTALL TRAFFIC SIGNAL ON BALBOA BL. AT KNOLLWOOD SHOPPING CENTER	$130

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LAE2617	0	GALE AVENUE --FROM FULLERTON ROAD TO NOGALES ST, WIDEN FROM 4 TO 6 LANES AND NOGALES ST INTERSECTION WIDENING AT GALE AVE. TO ADD LEFT TURN LANE.	$600
L	LAE2634	0	CONSTRUCTION OF A TRAFFIC SIGNAL AT THE INTERSECTION OF HAMLIN ST. AND CORBIN AVE.	$142
L	LAE2651	0	CONSTRUCT CROSSWALK BUMP-OUTS AND RELATED STREETSCAPE IMPROVEMENTS ON TEMPLE ST BETWEEN HOOVER ST & GLEN-DALE. PROJECT WILL PROVIDE FOR VARIOUS STREETSCAPE IMPROVEMENTS.	$500
L	LAE2663	0	ROSEMEAD BLVD SAFETY ENHANCEMENT AND BEAUTIFICATION: NON- CAPACITY INCREASE ACTIVITIES BETWEEN TENTLAND ST/ RAILROAD TRACKS AND ROSEMEAD/ CALLITA RD, INCLUDING ROW ACQUISITION	$960
L	LAE2690	0	SAN GABRIEL MISSIN INTERSECTION IMPROVEMENT. REHAB INTERSECTION AND ACQUIRE CORNER CUT OFFS. RESTRIPE INTERSEC-TION AND MODIFY SIGNAL. NEW CURB,GUTTER AND SIDEWALK TO ADA.	$1,650
L	LAE2699	0	CONSTRUCTION OF NEW MULTI-USE PATH/TRAIL ALONG RIVER BANK BETWEEN SEPULVEDA BLVD & KESTER AVE INCLUDING ACCESS RAMPS, REATAINING WALLS, LANDSCAPING ETC.	$574
L	LAE2750A	0	PAVEMENT AND INTERSECTION IMPROVEMENT AT LA MIRADA BLVD AND ALONDRA BLVD PRIOR TO I-5 IMPROVEMENTS	$1,945
L	LAE2750B	0	VALLEY VIEW AVE AND ALONDRA BLVD INTERSECTION IMPROVEMENTS IN ADVANCE OF I-5 FREEWAY IMPROVEMENTS	$2,235
L	LAE2819	0	ROSECRANS AVE AND BRIDGE ARTERIAL RECONSTRUCTION PROJECT(NON-CAPACITY).	$3,840
L	LAE2828	0	IMPLEMENT STREETSCAPE IMPROVEMENTS ALONG WILBUR AVE TO ENHANCE TRAFFIC AND PEDESTRIAN TRAFIC. ALL WORK SHALL BE COMPLETED IN CITY OF LA ROW	$114
L	LAE2835	0	ATHERTON ST ENCLOSE AND LANDSCAPE EXISTING OPEN CULVERT	$1,440
L	LAE2843	0	CRENSHAW BLVD REHABILITATION, MARICOPA ST TO SEPULVEDA BLVD, CITY OF TORRANCE	$3,730
L	LAE2883	0	INSTALLATION OF NEW AND THE REMOVE/REPLACE OF EXISTING DAMAGED OR SUBSTANDARD SIDEWALKS AND ADA RAMPS. PROJECT AREA IS BOUNDED BY FOSTER RD TO ROSECRANS AVE AND LAKEWOOD BLV.	$480
L	LAE2906	0	INGLEWOOD AV/MARINE AV INTRSCTN IMPRVEMNT- PURCHASE ROW FOR WIDENING; ADD 1 THRU NB LN INGLEWOOD AV (2 LN EX-STNG) &1 THRU WB LN MARINE AV (1 LN EXSTNG); ADD LIGHTNG, SIGNLS,SIDEWLK	$4,515
L	LAE2932	0	213TH ST. PEDESTRIAN SIDEWALK BRIGE OVER DOMINGUEZ CHANNEL. CONSTRUCT 213TH ST. PEDESTRIAN BRIDGE TO PROVIDE SAFE PASSAGE FOR PEDESTRIANS & WHEELCHAIRS OVER DOMINGUEZ CHANNEL.	$2,200
L	LAE2978	0	DEVELOP CONCEPTUAL MASTER PLAN TO IMPROVE THE EFFICIENCY OF TRANSPORTATION FACILITIES (E/P & PS/E ONLY)	$233

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LAE3000	0	GRAND AV PHASE III: MODIFICATION OF EXIST MEDIANS, AESTHETIC ENHANCEMENTS, REPLACEMENT OF EXIST IRRIGATION SYSTEM, LANDSCAPE, & CONCRETE, STRIPING & DRAINAGE IMPRVTS (NON-CAPACITY)	$2,070
L	LAE3018	0	VALLEY BLVD CAPACITY IMPROVEMENTS BETWEEN 710 AND MARGUERITA. INVOLVES TRAFFIC FLOW AND CAPACITY IMPROVEMENTS INCLUDING RAISED MEDIANS.	$3,724
L	LAE3069	0	CULVER BLVD AND SEPULVEDA BLVD IMPROVEMENTS. DESIGN AND CONSTRUCT. SEPULVEDA 1 S BOUND LANE 5/8 MILE FROM JEFFERSON PLAYA TO GREEN VALLEY. ON CULVER .5 MILE SEPULVEDA TO ELENDA	$4,219
L	LAE3085	0	WIDEN AND RECONSTRUCT WASHINGTON BLVD FROM WESTERLY CITY BOUNDARY AT VERNO TO I-5 FWY AT TELEGRAPH RD. WIDEN FROM 2 TO 3 LANES IN EACH DIRECTION.	$23,437
L	LAE3126	0	ROSECRANS AVE STREET IMPROVMENTS FROM GARFIELD AVE TO CENTURY BLVD. RESURACING PAVEMENT SIGNING AND STRIPING, INSTALLING CONCRETE BUS PADS, CONCRETE REPAIR, CROSSWALK REPLACMENT	$690
L	LAE3157	0	REHABILITATE ADDISON ST BETWEEN KESTER AVE AND LEMONA AVE: PROVIDE ASHALT CONCRETE RESURFACING ON THE PROPOSED PROJECT LIMITS. WILL NOT ENHANCE TRAFFIC CAPACITY.	$51
L	LAE3175	0	SR 91 I-605 NEEDS ASSESSMENT STUDY (E/P, PS/E ONLY)	$22
L	LAE3201	0	CONSTRUCTION OF A TRAFFIC SIGNAL AT THE INTERSECTION OF OSO AVE. AND VANOWEN ST.	$142
L	LAE3229	0	CONSTRUCTION AND ENHANCEMENTS OF TRAILS IN THE SANTA MONICA MOUNTAINS NATIONAL RECREATION AREA	$960
L	LAE3239	0	RECONSTRUCT ATLANTIC AVE AND IMPROVE DRAINAGE FROM ARDMORE ST TO IMPERIAL HWY. PAVEMENT REHABILITATION, RAISED MEDIANS, DRAINAGE, SIGNAL, PARKWAY, AND MISC. IMPROVEMENTS.	$3,120
L	LAE3269	0	NORTHWEST SAN FERNANDO VALLEY RD & SAFETY IMPROVEMENTS; WILL PROVIDE ASPHALT CONCRETE RESURFACING OF VARIOUS STREETS IN THE NORTHWEST SAN FERNANDO VALLEY AREA.WILL NOT INCREASE CAP	$3,056
L	LAE3284	0	WEST ADAMS BLVD STREETSCAPE-INSTALL STREETSCAPE AND COMMUNITY GATEWAY IMPROVEMENTS ALONG WEST ADAMS BLVD.	$250
L	LAE3308	0	WALNUT GROVE AT BROADWAY INTERSECTION IMPROVEMENT. REHAB INTERSECTION; ACQUIRE CORNER CUT OFF TO INCREASE CURB RETURN RADII TO ADD LEFT TURN LANE IMPROVE PED SAFETY	$1,675
L	LAE3439	0	EXPAND DIESEL EMISSIONS REDUCTION PROGRAM OF GATEWAY CITIES COG THAT PROVIDES INCENTIVE GRANTS TO OWNERS OF OLDER DIESEL TRUCKS TO UPGRADE TO NEWER ONES TO REDUCE EMISSIONS	$4,080
L	LAE3764	0	ITS & INTERSECTION IMPV. AT LAX. RESTRIPING, SIGNAL PHASING, OR THE ADDITION OF INTELLIGENT SYSTEM EQUIPMENT.(ITS ONLY, NON-CAPAICTY INCREASE)	$1,250
L	LAE3768	0	COMPTON ARTERIAL REONCSTRUCTION AND IMPROVEMENT PROGRAM (NON-CAPACITY).	$3,000

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	LAE3790	0	THE PASADENA ITS INTEGRATES 3 COMPONENTS; TRAFFIC SIGNAL COMMUNICATION AND CONTRL, TRANSIT VEHICLE ARRIVAL INFO AND PUBLIC PARKING AVAILABILITY INFO. SAFETEA-LU PRJ #3790 AND #399	$3,545
L	LAE3793	0	CALIFORNIA AVE WIDENING: FROM WILOW AVE AND SPRING ST WIDEN CALIFORNIA AVE TO SECONDARY MODIFIED HIGHWAY STREET STANDARDS (NON-CAPACITY).	$1,200
L	LAE3805	0	PLANNING, DESIGN AND PRELIMINARY ENGINEERING OF ON/OFF RAMP SYSTEM AT INTERSECTION OF I-10 AND ROBERTSON/NATIONAL BLVD.	$2,500
L	LAE3807	0	DIESEL EMISSION REDUCTION PROGRAM OF SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	$2,400
L	LA0B7326	0	COMPTON CREEK BIKEWAY EXTSN - PHASE III.DSIGN & CNSTRUCT .6 MI OF CLAS 1 BIKE/PED PATH FRM GREENLEAF BL TO ARTESIA FWY.WILL INC BIKE PATH, PED WALKWAY SIGNAGE, STRPNG. (PPNO 2869).	$464
T	LA000507	0	SECURITY/SURVEILLANCE EQUIPMENT. PART OF SAFETEA-LU TRANSIT PROJECT #260 ALONG WITH LA0D308, LA0D340, AND LA0D307	$357
T	LA000665	0	LINE #8 - OPERATING SUBSIDY	$5,046
T	LA000666	0	LINE #6 - BLUE LINE FEEDER SERVICE	$3,310
T	LA01B111	0	BUS SYSTEM - PREVENTIVE MAINTENANCE	$8,560
T	LA01B112	0	BUS SUPPORT EQUIPMENT (ENGINES AND TRANSMISSIONS)	$800
T	LA01B120	0	EXPANSION OF DIVISION 1 TO ADD ADDITIONAL CAPACITY OF APPROX 67 BUSES AND ADDITIONAL PARKING SPACE OF EMPLOYEES. ACQUISITION OF A VACANT PARCEL SOUTH OF DIV 1	$6,088
T	LA0B0825	0	BUS SYSTEM OPERATING EQUIPMENT - FUEL DISPENSING/MONITORING SYSTEM AND NON-REVENUE AND SECURITY VEHICLES.	$1,900
T	LA0B203	0	PURCHASE OF SUPPORT EQUIPMENT - TIRES	$462
T	LA0B308	0	FOOTHILL TRANSIT ADMINISTRATIVE/ OFFICES AND EQUIPMENT	$18,001
T	LA0B309	0	CNG FUELING STATION - POMONA AND IRWINDALE	$3,600
T	LA0B310	0	REPLACE (125) BUSES (CNG) - 50 IN FY07 AND 75 IN FY08	$44,500
T	LA0B311	0	"PARK AND RIDE FACILITY TRANSIT ORIENTED NEIGHBORHOOD PROGRAM SAFETEA-LU # 341 (E-2006-BUSP-092) (E-2006-BUSP-173)"	$16,442
T	LA0B358	0	PREVENTATIVE MAINTENANCE FOR THE CULVER CITYBUS OPERATION	$10,000
T	LA0B400	0	PROCUREMENT OF FIVE (5) 40' CNG EXPANSION BUSES/420K PER BUS	$2,211
T	LA0C10	0	MID-CITY/EXPOSITION CORRIDOR LIGHT RAIL TRANSIT PROJECT PHASE I TO VENICE-ROBERTSON STATION	$862,000
T	LA0C15	0	PURCHASE TWO REPLACEMENT TRANSIT SUPPORT VEHICLES	$62
T	LA0C37	0	BUS STOP IMPROVEMENTSCONSTRUCTION OF PASSENGER SHELTERS AND INFORMATION KIOSKS	$686

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA0C61	0	TRANSIT DATA AND COMMUNICATION SYSTEMS; ITS (RADIO, AVL, DISPATCHING, AND OTHER ADVANCED TECHNOLOGY) ONGOING.	$1,161
T	LA0C63	0	PURCHASE OF MISC OFFICE EQUIPMENT- (ONGOING)	$700
T	LA0C64	0	ASSOCIATED CAPITAL MAINTENANCE (ENGINES, TRANSMISSIONS, PARTICULATE TRAPS, KITS, ETC) (ONGOING)	$1,759
T	LA0C65	0	PURCHASE OF SUPPORT SERVICE EQUIPMENT - MISC EQUIPMENT (ONGOING)	$725
T	LA0C72	0	CAPITALIZATION OF MAINTENANCE COST (TIRE LEASE) (ONGOING)	$317
T	LA0C8173	0	NORTHRIDGE METROLINK STN PARKING IMPRVMENT. CONSTRCT ADDT'L 100 PRKING SPCS & RECONFIGURE SOUTHERN PRTION OF EXISTNG PRKNG LOT TO YIELD AN ADDT'L 40 NET PRKING SPCES TOTAL 400 SPC.	$3,263
T	LA0C8217	0	PURCHASE EXPANSION OVER THE ROAD COMMUTER COACHES (6) (FUNDS FROM LA UZA). RELIEVE OVERCROWDING ON THE 40-FOOT BUSES WILL ALLOW AVTA TO OPERATE TWO NEW ROUTES IN SFV/GLEN./PAS.	$3,600
T	LA0C8219	0	SOUTH BAY PAVILION REGIONAL TRANSIT CTR. CONSTRUCTION OF A TRANSIT CTR AT THE SOUTH BAY PAVILION SHOPPING CTR TO BE SERVED BY ALL 8 CARSON CIRCUIT RTES & MTA LINES #205 & #446-447.	$5,637
T	LA0C8223	0	COMPTON MLK TRANSIT CENTER EXPANSION AND MULTI-MODAL/WILL ALLOW THE TRANSIT SYSTEM TO REDUCE OPERATING COST BY PROVIDING THE TRANSIT CONTRACTOR WITH A BUS YARD AND MAINT. CENTER.	$4,934
T	LA0C8232	0	ANTELOPE VALLEY LINE CHANGES AT SANTA CLARITA-ALIGNMENT CHANGES WILL PERMIT HIGHER SPEEDS OF OPERATION AND REDUCE MAINTENANCE COST- (SCRRA). (PPNO 3202).	$3,693
T	LA0C8237	0	FIRST ST PARKING STRUCTURE-LONG BEACH REDEVELOPMENT AGENCY. BUILD A PARKING STRUCTURE NEAR SOUTHERLY TERMINUS OF THE LONG BEACH BLUE LINE IN DOWNTOWN LONG BEACH.	$3,902
T	LA0C8241	0	PICO UNION/ECHO PARK DASH VEHICLE PROCUREMENT. PURCHASE (3) LOW-FLOOR, PROPANE-POWERED 30' BUSES FOR THE PICO/UNION ECHO PARK SHUTTLE SERVICE.	$835
T	LA0C8242	0	BUS STOP IMPROVEMENTS ON SAN FERNANDO ROAD & TC LIGHTING; ENHANCE PASSENGER FACILITIES AT THREE BUS STOPS WITH GREATEST NUMBER OF DAILY BOARDINGS ON EAST SIDE OF SAN FERNANDO ROAD.	$505
T	LA0C8250	0	MONROVIA RAILROAD DEPOT MULTI-MODAL TRANSIT CENTER: STABILIZING STRUCTURE AND THEN OVERALL STRUCTURAL ELEMENTS WILL BE REPAIRED FOLLOWED BY RESTORING KEY ARCHITECTURAL . PPNO# 3415	$2,053
T	LA0C8331	0	LONG BEACH WAYFINDING/TRANSIT CONNECTION PROGRAM OF SIGNS WILL BE PEDESTRIAN, VEHICULAR, A PARKING AND WILL INCLUDE MAPPING THAT DISPLAYS DESTINATIONS AND TRANSIT OPTIONS.	$584

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA0C8362	0	EL MONTE STATION IMPROVEMENT PROJECT AND TRANSIT STORE EQUIPMENT	$650
T	LA0C8364	0	NORTH LA COUNTY NON-ADVERTISING BUS STOP SHELTERS. INSTALLATION OF BUS SHELTERS WITH SEATING AT BUS STOPS WITH GREATEST # OF DAILY BOARDING IN NORTH LOS ANGELES COUNTY. PPNO 3229.	$180
T	LA0C8369	0	ROLLING STOCK MAINTENANCE FACILITY IN SAN BERNARDINO- FUNDING BUILD NEW COMMUTER TRAIN STORAGE & MAINTENANCE FACILITIES & CONNECTING TRACKS IN INLAND EMPIRE.(SCRRA).PPNO 3201, 3366	$17,782
T	LA0C8380	0	CHINATOWN/COLLEGE STREET GOLD LINE STATION - INTERMODEL TRANS. CENTER ENHANCE MENT (PEDESTRIAN WALKWAY BRIDGE, BUS STATION, AND A BIKE STATION)	$18,190
T	LA0C8382	0	SEPULVEDA BLVD BUS STOP IMPROVEMENT PROGRAM. BUS STOP AMENITIES INC LIGHTING SIGNAGE, LANDSCAPING, SHELTERS, SEATING, LANDINGS AND TRASH RECEPTACLES.	$147
T	LA0C8383	0	LONG BEACH TRANSIT: BUS STOP IMPROVEMENT PROJ. ENHANCE 9 OF RAIL STATION FEEDER BUS STOPS TO EASE TRANSFERS, MAKE PUBLIC TRANSIT MORE AESTHETICALLY PLEASING & SAFER, INC RIDERSHIP.	$1,200
T	LA0C8385	0	EL SERENO DASH PROCUREMENT. PURCHASE (2) LOW-FLOOR, PROPANE POWERED, 30' FOOT BUSES FOR THE EL SERENO DASH SERVICE.	$540
T	LA0C8386	0	BUS SYSTEM ALTERNATE FUEL FACILITY (FY 2001 CALL-FOR-PROJECTS)-CROSS STREETS: 139TH ST & WESTERN AVE.	$2,235
T	LA0C8413	0	METRO RAPID BUS STATIONS-PHASE II: INCLUDES COMMUNICATIONS & EQUIPMENT	$110,000
T	LA0D03	0	PHASE II FACILITY ALT FUEL CONVERSION/ON-SITE FUELING STATION	$550
T	LA0D07	0	UNIVERSAL FARE SYSTEM REGIONAL PROJECT	$21,363
T	LA0D08	0	UNIVERSAL FARE SYSTEM MTA PROJECT - (PROGRAMMING APPROVED BOD 11/2001)	$55,844
T	LA0D103	0	THE CITY AND THE REDEVELOPMENT AGENCY WILL EXPAND ON AN EXISTING PARKING FACILITY (500 PARKING SPACE) FOR ADDITIONAL USE BY TRANSIT PATRONS.	$6,616
T	LA0D109	0	PURCHASE LAND FOR VEHICLE MAINTENACE TRANSIT FACILITY	$2,062
T	LA0D11	0	TRANSIT - ENHANCEMENTS	$311
T	LA0D112	0	ACQUISITION OF (2) ALTERNATIVE FUELED TRANSIT VEHICLE FOR EXISTING INTRA-CITY CIRCULATOR ROUTE FOR THE MISSION MERDIAN METRO GOLD LINE LIGHT RAIL STATION (LOCAL TDM)	$185
T	LA0D116	0	REPLACEMENT OF HVAC SYSTEM AT TORRANCE TRANSIT FACILITY	$513
T	LA0D12	0	FACILITY IMPROVEMENTS - POMONA, IRWINDALE, TRANSIT STORES AND W. COVINA OFFICE.	$3,755
T	LA0D123	0	CAPITAL PREVENTIVE MAINTENANCE: SPARE PARTS AND LABOR EXPENSES RELATED TO VEHICLE MAINTENANCE UNDER THE FTA POLICIES GOVERNING CAPITAL PROJECTS.	$6,071
T	LA0D125	0	BUS STOP AMENITIES PROJECT	$1,860
T	LA0D127	0	CONSTRUCT CNG FUELING STATION ON EXISTING FACILITY	$1,300

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA0D13	0	REPLACE FAREBOX/UFS	$1,100
T	LA0D132	0	PURCHASE 8 ARTICULATED HYBRID VEHICLES FOR LOCAL TRANSIT. (LA UZA) -	$4,303
T	LA0D134	0	PURCHASE 4 EXPANSION VEHICLES FOR LOCAL TRANSIT. (LANCASTER / PALMDALE UZA)	$1,600
T	LA0D135	0	PURCHASE PROPERTY/CONSTRUCT TRANSFER FACILITIES AT 47TH ST. EAST AND AVE S. (LA UZA FY06/07 $268 AND LANCASTER / PALMDALE UZA FY07/08 $1072)	$1,000
T	LA0D136	0	CNG STATION CONSTRUCTION AND OPERATION	$600
T	LA0D137	0	TRANSIT STATION RIGHT OF WAY PROCUREMENT FOR LAND AT THE EXISTING SANTA CLARITA METROLINK STATION.	$4,517
T	LA0D141	0	BICYCLE RACKS FOR NINE (9) BUSES, STAINLESS STEEL.	$24
T	LA0D142	0	CONSTRUCT COMPRESSED NATURAL GAS FUELING STATION ON EXISTING FACILITY.	$195
T	LA0D191	0	PURCHASE THREE 18- 25 PASSENGER FULLY ACCESSIBLE ALTERNATIVE FUEL VANS FOR DEMAND RESPONSIVE SERVICE TO REPLACE THE EXISTING FLEET OF THREE 1994 GASOLINE VANS.	$279
T	LA0D196	0	BUS OPERATION ASSISTANCE- SAN FERNANDO VALLEY RAPIDWAY(METRO ORANGE LINE)	$18,691
T	LA0D197	0	MID-CITY/EXPOSITION CORRIDOR LRT OPERATING ASSISTANCE	$114,801
T	LA0D198	0	CRENSHAW CORRIDOR (SAFETEA- LU #140): PE & SHORT TERM CATEGORICALLY EXEMPT IMPROVEMENTS (SHELTERS, AMENITIES, ETC)	$1,057,000
T	LA0D199	0	PURCHASE OF 5 REPLACMENT BUSES. GASOLINE-ELECTRIC HYBRID LOW FLOOR 40' COACH.	$2,625
T	LA0D205	0	BUS STOP AMENITIES (LA UZA)	$585
T	LA0D207	0	REHABILITATION IMPROVEMENT OF PARKING LOT LOCATED AT THE MADISON CAMPUS. (LEAD AGENCY SANTA MONICA COLLEGE)	$1,900
T	LA0D210	0	CONSTRUCT TRANSIT MANAGEMENT AND INFORMATION CENTER. TIC2	$2,255
T	LA0D224	0	PREVENTATIVE MAINTENANCE AND CAPITALIZATION OF EQUIPMENT MAINTENANCE EXPENSES.	$5,853
T	LA0D233	0	FLEET REPLACEMENT 9600'S UP TO 25 HEAVY DUTY HYBRID FUEL BUSES.	$8,479
T	LA0D235	0	TRAINING AND EDUCATIONAL REIMBURSEMENT 2006/07	$41
T	LA0D236	0	SUPPORT VEHICLES 2006/07	$328
T	LA0D237	0	MISC SHOP EQUIPMENT 2006/07	$154
T	LA0D238	0	MISC SAFETY AND SECURITY PROJECTS 2007/08	$154
T	LA0D239	0	TIRE LEASE 2006/07	$770
T	LA0D240	0	OFFICE EQUIPMENT, MONEYROOM COUNTING EQUIPMENT AND FURNITURE 2006/07	$39

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA0D241	0	BUS COMPONENTS 2006/07 ENGINES, TRANSMISSIONS, REPOWER ARTICULATED BUSES	$2,515
T	LA0D242	0	BUS STOP AMENITIES 2006/07 SHELTERS, BENCHES, TRASH RECEPTACLES, PUBLIC ART AND OTHER MISC AMENITIES.	$103
T	LA0D243	0	INFORMATION SYSTEMS EQUIPMENT 2006/07 SOFTWARE AND HARDWARE.	$1,523
T	LA0D244	0	MISC FACILITY IMPROVEMENTS 2006/07 INCLUDING FUEL TANK UPGRADE PHASE III, FALL PROTECTION SYSTEMS, TICII AND OTHER GENERAL FACILITY PROJECTS	$616
T	LA0D272	0	SOUTH SAN FERNANDO VALLEY REGIONAL PARK AND RIDE. ADD 50 NEW PARKING SPACES TO EXISTING COMMUTER EXPRESS PARK AND RIDE LOT WITHIN EXISTING AREA.	$767
T	LA0D282	0	LANDSCAPE,STREETSCAPE & PASSENGER AMENITY IMPRVMENTS AT & ADJACENT LOS ANGELES CITY COLLEGE TO IMPROVE PEDES-TRAN MOBILITY & ACCESSIBILITY TO EXSTG MULTIMDAL CONN. SAFETEA-LU # 223	$9,564
T	LA0D283	0	ACQUISITION OF 7 REPLACEMENT TRANSIT VEHICLES	$1,921
T	LA0D287	0	PURCHASE OF 29 REPLACEMENT BUSES. GASOLINE-ELECTRIC HYBRID LOW FLOOR 40' COACH. PURCHASE OF 6 EXPANSION BUSES. GASOLINE-ELECTRIC HYBRID LOW FLOOR 40' COACH	$20,214
T	LA0D29	0	HEART OF THE CITY BUS TRANSFER STATION AMENITIES - CONSTRUCTION IN CITY REDEVELOPMENT AREA - (SERVICE BY 5 LACMTA LINES, 2 TORRANCE LINES & 1 LADOT COMMUTER EXPRESS LINE).	$5,470
T	LA0D291	0	PURCHASE REPLACEMENT SUPPORT VEHICLES (9 TOTAL WITH 3 IN EA IN 07,08 & 09) (LANCASTER/ PALMDALE UZA)	$450
T	LA0D292	0	REFURBISH COMMUTER COACHES (3-FY06), (3-FY07), (4-FY08). (LANCASTER / PALMDALE UZA)	$1,000
T	LA0D295	0	BUS SUPPORT - ADP SOFTWARE (TRANSTRAK) ONGOING	$103
T	LA0D296	0	BUS STOP IMPROVEMENTS (ONGOING)	$300
T	LA0D297	0	CAPITALIZED COST OF CONTRACTING	$1,000
T	LA0D299	0	ACQUISITION OF (6) ALTER FUEL TRANSIT/PARATRANSIT VEHICLES NOT TO EXCEED 35' SAFETEA-LU TRANSIT #251	$2,106
T	LA0D300	0	ACQUISITION OF TELEPHONE UPGRADES FOR TRANSIT DIVISION.	$62
T	LA0D307	0	PURCHASE FIVE (5) ALTERNATIVE FUEL BUSES FOR SERVICE EXPANSION. PART OF SAFETEA-LU TRANSIT PROJECT #260 ALONG WITH LA000507, LA0D340, AND LA0D308	$2,875
T	LA0D308	0	DRIVER TRAINING SIMULATOR. PART OF SAFETEA-LU TRANSIT PROJECT #260 ALONG WITH LA000507, LA0D340, AND LA0D307	$400
T	LA0D316	0	BIKE RACKS ON BUSES. THESE ARE FY05 BOS 1% TEA (5307) FUNDS.	$85
T	LA0D320	0	BETWEEN NORWALK AND LA MIRADA: CONSTRUCT 5.6 MILES OF NEW THIRD MAIN TRACK. PPNO# 2002 EA# R889SA	$102,661

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA0D322	0	TRANSIT FACILITY TO INCLUDE BUS MAINTENANCE STRUCTURE, BUS STORAGE, TRANSIT HUB, PARK-N-RIDE, TRAIL HEAD AND A VISITOR SERVING KIOSK.	$620
T	LA0D337	0	TRANSIT ENHANCEMENT ACTIVITIES: 1% FORMULA FUNDS - LOS ANGELES COUNTY	$14,750
T	LA0D338	0	METRO GOLD LINE EASTSIDE EXTENSION ENHANCEMENTS INCLUDING ADDITIONAL TVM'S; PEDESTRIAN SAFETY, LANDSCAPING AND MULTI-MODAL INTERFACE ELEMENTS; ADDITIONAL TRACTION POWER SUBSTATION,	$14,000
T	LA0D340	0	PURCHASE SIX (6) 40 FT. ALTERNATIVE FUEL BUSES FOR SERVICE EXPANSION. PART OF SAFETEA-LU TRANSIT PROJECT #260 ALONG WITH LA0D308, LA000507, AND LA0D307	$3,000
T	LA0D342	0	BEAUDRY AVE TERMINAL STREETSCAPE	$509
T	LA0D343	0	VEHICLE MAINTENANCE FACILITY	$9,627
T	LA0D345	0	ASSOCIATED CAPITAL MAINTENANCE FOR REVENUE VEHICLE FLEET (ONGOING)	$41
T	LA0D348	0	PURCHASE REPLACEMENT VANS WITH ALTERNATE FUEL VANS; FY 08=4, FY 10=3	$1,320
T	LA0D349A	0	REPLACEMENT BUSES - 25FT VANS/BUSES - PURCHASE QTY OF 3 GASOLINE-22 PASSENGER CAPACITY EACH	$616
T	LA0D350	0	MID LIFE REFURBISHMENT OF 27 40' LOW FLOOR TRANSIT BUSES. (12 REFURBISHMENTS IN 2006 AND 15 REFURBISHMENTS IN 2007)	$4,106
T	LA0D352	0	REPLACEMENT OF THREE (3) DIAL-A-RIDE VEHICLES WITH THREE (3) 21 PASSENGER CNG VEHICLES	$225
T	LA0D353	0	PURCHASE LOCAL TRANSIT BUSES-EXPANSION (6) (LANCASTER/PALMDALE UZA)	$2,100
T	LA0D355	0	BUS CAPITAL ITEMS--ENGINGE REBUILDS AND ENGINE COMPONENTS 32 BUSES @ 50K	$343
T	LA0D356	0	PROVIDE HARDSCAPE, LANDSCAPE AND STREETSCAPE IMPROVEMENTS AT EAST LOS ANGELES COLLEGE TO PROVIDE A OFF-STREET TRANSIT CENTER TO IMPROVE PEDESTRIAN MOBILITY AND MULTI-MODAL	$2,836
T	LA0D357	0	PROVIDE HARDSCAPE, LANDSCAPE AND STREETSCAPE IMPROVEMENTS AT LOS ANGELES TRADE TECHNICAL COLLEGE TO IMPROVE PEDESTRIAN MOBILITY AND MULTI-MODAL TRANSIT CONNECTIONS.SAFETEA-LU # 307	$5,925
T	LA0D358	0	PROVIDE HARDSCAPE, LANDSCAPE, AND STREETSCAPE IMPROVEMENTS AT LOS ANGELES VALLEY COLLEGE TO IMPROVE PEDESTRIAN MOBILITY AND MULTI-MODAL TRANSIT CONNECTIONS	$3,429
T	LA0D362	0	COMPREHENSIVE OPERATIONAL ANALYSIS TRANSIT PLANNING	$415
T	LA0D363	0	SANTA CLARITA TRANSIT PHASE 2 - EXPANSION BUSES - (9) LOCAL TRANSIT CNG BUSES & (4) OVER THE ROAD COMMUTER BUSES.	$1,018
T	LA0D364	0	CARB RETROFIT PROGRAM	$400
T	LA0D371	0	REDONDO BEACH ESPLANADE INTERMODAL IMPROVEMENT PROJECT - A DEDICATED OFF-STREET BIKE PATH.	$3,500

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA0D375	0	DESIGN & CONSTRUCTION OF PEDESTRIAN ACCESS AT COVINA METROLINK STATION, AT THE SAN BERNARDINO LINE ROW, & DOUBLE TRACKING APPROACHING STATION. PROJECT IS IN LA COUNTY	$642
T	LA0D384	0	BUS SUPPORT EQUIPMENT-DIESEL EXHAUST NOX AFTER-TREATMENT DEVICES (50)	$770
T	LA0D389	0	FEDERAL GRANT WILL BE USED TO PURCHASE TWO (2) PARATRANSIT VEHICLES FOR THE CITY'S DIAL-A-RIDE SERVICE USED BY ELDERLY AND HANDICAPPED RESIDENTS	$150
T	LA0D396	0	1ST STREET TRANSIT MALL ENHANCEMENTS	$332
T	LA0D400	0	CITY OF AZUSA, FOUR REPLACEMENT MEDIUM BUSES, SEATS TWELVE AMB PASSENGERS AND TWO W/C.	$224
T	LA0D401	0	LANTERMAN DEVELOPMENTAL CENTER, ONE REPLACEMENT MODIFIED VAN, SEATS EIGHT AMB PASSENGERS	$48
T	LA0D402	0	ALTA MED HEALTH SERVICES CORPORATION, REPLACEMENT OF ONE MODIFIED VAN WHICH SEATS EIGH AMB PASSENGERS AND TWO MEDIUM BUS TYPE II , WHICH SEATSTWELVE AM AND PASSENGERS EACH.	$160
T	LA0D403	0	THE INSTITUTE FOR THE REDESIGN OF LEARNING, ONE, REPLACEMENT MODIFIED VAN, SEATS EIGHT AMB PASSENGERS AND W/C	$48
T	LA0D404	0	MENTAL HEALTH ASSOCIATION IN LOS ANGELES (THE VILLAGE), ONE EXPANSION MINI VAN, TYPE IV, SEATS FIVE AMB PASSENGERS.	$41
T	LA0D405	0	GRANDVIEW FOUNDATION INC. THREE REPLACEMENT MODIFIED VANS, SEATS EIGHT AMB PASSENGERS, AND ONE W/C	$137
T	LA0D406	0	SOCIAL VOCATIONAL SERVICES INC. REPLACEMENT THREE MODIFIED VANS, SEATS EIGHT AMB PASSENGERS EACH	$144
T	LA0D407	0	CITY OF PASADENA, REPLACEMENT FIVE MEDIUM BUS (TYPE 11) WICH SEATS TWELVE AMB PASSENGERS AND TWO W/C	$280
T	LA0D408	0	TARZANA TREATMENT CENTERS, TWO EXPANSION MODIFIED VANS SEATS EIGHT AMB PASSENGERS AND ONE W/C	$96
T	LA0D409	0	TARZANA TREATMENT CENTERS, 8 COMPUTERS, 8 PRINTERS AND GPS TRACKING SYSTEM	$40
T	LA0D410	0	IMOSA, INC., ONE EXPANSION SMALL BUS TYPE 1, SEATS EIGHT AMB PASSENGERS AND TWO W/C	$45
T	LA0D411	0	MOTION PICTURE AND TELEVISION FUND, ONE EXPANSION MEDIUM BUS TYPE II, SEATS TWELVE AMB PASSENGERS AND TWO W/C	$56
T	LA0D412	0	ALTAMED HEALTH SERVICES CORPORATION, COMPUTER SOFTWARE	$40
T	LA0D413	0	ASIAN REHABILITATION SERVICES INC. ONE EXPANSION MINIVAN TYPE IV, SEATS FIVE AMB PASSENGERS AND CAPABLE OF CARRYING TWO W/C	$41
T	LA0D414	0	STEELWORKERS OLDTIMERS FOUNDATION, DISPATCHING SOFTWARE, ONE SERVER, AND THREE COMPUTERS	$34
T	LA0D415	0	EAST LOS ANGELES REMARKABLE CITIZEN'S ASSOCIATION INC., (EL ARCA) ONE BASE STATION, COMPUTER EQUIPMENT AND SOFTWARE	$10

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA0D416	0	EAST LOS ANGELES REMARKABLE CITIZENS ASSOCIATION, INC. (EL ARCA) FIVE EXPANSION MEDIUM BUS TYPE II AND 5 MOBILE RADIOS.	$288
T	LA0D417	0	ACCESS SERVICES INC., 13 MINIVAN TYPE IV REPLACEMENT VEHICLES, SEATS FIVE AMB PASSENGERS AND CAPABLE OF CARRYING TWO W/C	$533
T	LA0D418	0	O.P.I.C.A ADULT DAY CARE CENTER, ONE EXPANSION SMALL BUS, SEATS EIGHT AMB PASSENGERS AND TWO W/C	$45
T	LA0D419	0	CITY OF INGLEWOOD, 2 EXPANSION LARGE BUS TYPE III AND MOBILE RADIOS, SEATS SIXTEEN AMB (PASSENGERS AND TWO W/C) FOR PARATRANSIT DIAL A RIDE SERVICE.	$123
T	LA0D424	0	PURCHASE OF ADMINISTRATIVE SUPPORT AND MAINTENANCE EQUIPMENT	$1,120
T	LA0D425	0	MID-LIFE REFURBISHMENT OF THREE COMMUTER COACHES	$294
T	LA0D426	0	PURCHASE REPLACEMENT (9) DAR VEHICLES	$727
T	LA0D427	0	FACILITY MAINTENANCE	$104
T	LA0D428	0	PURCHASE PROPERTY/CONSTRUCT PASSENGER TRANSFER STATION	$880
T	LA0D429	0	ONE ADDITIONAL OPERATIONAL SUPPORT VEHICLE	$35
T	LA0D43	0	CAPITALIZATION OF PREVENTIVE MAINTENANCE (ONGOING)	$3,925
T	LA0D430	0	CENTRALIZED MAINTENANCE AND OPERATIONS FACILITY UPGRADES	$9,295
T	LA0D431	0	VEHICLE MAINTENANCE: REBUILD SERIES 40 AND SERIES 50 ENGINES	$660
T	LA0D432	0	ADDITIONAL TRANSIT INFORMATION SYSTEM INTEGRATION	$1,219
T	LA0D433	0	TICKET VENDING MACHINES	$568
T	LA0D435	0	PURCHASE OF REPLACEMENT CNG BUSES AND EXPAND NATURAL GAS FUELING FACILITY. SAFETEA-LU TRANSIT # 207	$3,867
T	LA0D436	0	ELEVEN (11) ALTERNATE FUEL 40 FT. TRANSIT BUSES TO REPLACE ELEVEN (11) 1995 MODEL YEAR BUSES.	$6,375
T	LA0D437	0	TEN (10) ALTERNATE FUEL 40 FT. TRANSIT BUSES TO REPLACE:THREE (3) 1995 MODEL & (7) SEVEN 1997 MODEL YEAR BUSES.	$6,000
T	LA0D438	0	MISCELLANEOUS FACILITY IMPROVEMENTS TO THE NORWALK TRANSIT ADMINISTRATIVE, OPERATIONS, MAINTENANCE AND PUBLIC SERVICE BUILDING LOCATED AT 12650 E. IMPERIAL HWY NORWALK.	$2,852
T	LA0D452	0	REGIONAL ITS INTEGRATION PROJECT; INTEGRATION OF VARIOUS REGIONAL TRAFFIC AND TRANSPORTATION OPERATIONS SYSTEM ELEMENTS	$7,246
T	LA0D453	0	PURCHASE 5 REPLACEMENT ALTERNATIVE FUEL 40' BUSES	$3,000
T	LA0D454	0	REHAB TRANSIT ADMINISTRATIVE OFFICES	$200

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA0D455	0	REPLACE RELIEF AND SUPERVISOR VEHICLES	$160
T	LA0D456	0	ARCHITECTRAL/ ENG DESIGN & CONSTRTN ENHANCMNTS AT 4 ON-STREET TRANSIT HUBS IN SOUTH BAY AREA, INCLDNG SECRTY LIGHTNG, BENCHES, TRASH CANS, SIGNS, ADA CURB RAMPS, INFO AIDS & PHONES	$698
T	LA0D457	0	BUS REPLACEMENT	$912
T	LA0D471	0	NEW FREEDOM PROGRAM OPERATIONS AND CAPITAL ACQUISITIONS	$45,668
T	LA0D481	0	ASSOCIATED CAPITAL MAINTENANCE-FIVE YEAR TIRE LEASE	$5,559
T	LA0D83	0	PURCHASE/INSTALL MOBILE DATA COMPUTER (MDC) SYSTEM IN PARATRANSIT REVENUE VEHICLES (LANCASTER/PALMDALE UZA)	$200
T	LA0D84	0	PURCHASE/INSTALL AVL/GPS/APC/ANUNCIATORS/BUSINESS MANAGEMENT AND MONITORING SYSTEMS (LANCASTER/PALMDALE UZA)	$3,000
T	LA0D87	0	SCRRA -ROLLING STOCK STORAGE FACILITY IN THE PACIFIC SURFLINER CORRIDOR NEAR LA UNION STATION AND CONTROL POINT SAN DIEGO JUNCTION AT KELLER STREET YARD. 2002 STIP IIP, 2023.	$5,270
T	LA0D89	0	UPGRADE FAREBOX SYSTEM TO UNIVERSAL FARE SYSTEM-FUNDS TO BE REPROGRAMMED FROM TIP# LA990313. (LA UZA)	$881
T	LA0D92	0	COUNTYWIDE UNIVERSAL FARE SYSTEM (UFS) PROJECT	$1,420
T	LA0D93	0	IMPLEMENTATION OF UNIVERSAL FARE SYSTEM (UFS) PROJECT AT NORWALK TRANSIT. REFERENCE TIP# LA990313 MUNICIPAL UFS PROGRAM COORDINATION THROUGH SANTA MONICA'S BIG BLUE BUS. (ONGOING)	$103
T	LA0D94	0	PURCHASE OF AUTOMATED FARE COLLECTION SYSTEM FOR PARTICIPATION IN THE LOS ANGELES COUNTY UNIVERSAL FARE SYSTEM PROGRAM. PREVIOUSLY TIP# LA0D07	$2,271
T	LA0F001	0	AFMS TRANSIT ENHANCEMENTS (CHANGEABLE MESSAGE SIGNS/REAL TIME TRANSIT INFORMATION-AT BUS SHELTERS & COMMUNITY LOCATIONS)	$144
T	LA0F002	0	REPLACEMENT OF OMS SYSTEM (HARDWARE AND SOFTWARE)	$1,200
T	LA0F013	0	S. CALIF HIGH SPEED RAIL GRADE CROSSING IMPROVEMENTS (FFY 06 APPROPRIATIONS)	$2,087
T	LA0F014	0	SCRRA HWY/RAIL SEALED CORRIDOR PROJECT (FFY 06 APPROPRIATIONS)	$522
T	LA0F015	0	LOS ANGELES GRADE CROSSING IMPROVEMENTS (FFY 06 APPROPRIATION OF HSR SEC 1103 FUNDS)	$446
T	LA0F018	0	PURCHASE (2) EXPANSION BUSES FOR ROUTE 8 TO THE SAN FERNANDO VALLEY	$794
T	LA0F021	0	EXPOSITION LIGHT RAIL TRANSIT SYSTEM PHASE II - TO SANTA MONICA	$1,632,000
T	LA0F022	0	BUS SHELTER PROGRAM (INSTALLATION OF BUS SHELTERS AND REAL TIME TRANSIT INFORMATION)	$7,000
T	LA0F023	0	PEAK-HOUR BUS-ONLY LANES ON LINCOLN BLVD. BETWEEN PICO BOULEVARD AND THE SOUTH CITY LIMIT (IN BOTH DIRECTIONS)	$170

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA0F024	0	SECURITY SURVEILLANCE SYSTEM AND OTHER SECURITY ENHANCEMENTS	$2,372
T	LA0F048	0	PREVENTATIVE MAINTENANCE - OPERATING	$7,500
T	LA0F049	0	MONTEBELLO TRANSPORTATION FACILITY EXPANSION BASED ON FACILITY MASTER PLAN: FINAL ARCHITECTURE, ENGINEERING, CONSTRUCTION	$8,000
T	LA0F050	0	FACILITY MASTER PLAN FOR TRANSPORTATION FACILITY EXPANSION: PRELIMINARY ENGINEERING AND ARCHITECTUAL SERVICES ONLY	$75
T	LA0F051	0	PURCHASE EXPANSION DAR VEHICLES (4) 30' - 18 PASSENGER CUTAWAY VEHICLES. (L/P UZA)	$300
T	LA0F052	0	PURCHASE REPLACEMENT DAR VEHICLES (9) - REPLACE EXISTING DAR VEHICLES AT END OF LIFE CYCLE WITH ALTERNATIVE FUEL VEHICLES. (L/P UZA)	$810
T	LA0F053	0	MAINTENANCE MANAGEMENT SYSTEM SOFTWARE PURCHASE AND IMPLEMENTATION AT THE LANCASTER BUS MAINTENANCE FACILITY. (L/P UZA)	$1,000
T	LA0F054	0	ITS SOFTWARE IMPLEMENTATION MODIFICATIONS AT LANCASTER MAIN FACILITY. (L/P UZA)	$1,900
T	LA0F055	0	REPLACE OUTDATED FAREBOXES TO CURRENT TECHNOLOGY THAT WILL INTERFACE WITH THE ITS AND UNIVERSAL FARE SYSTEM. (L/P UZA)	$1,200
T	LA0F056	0	PURCHASE SERVICE EXPANSION BUSES (6) EXPRESS ROUTE BETWEEN PALMDALE TRANSPORTATION CENTER AND LANCASTER CITY PARK TRANSFER FACILITIES. (L/P UZA)	$3,240
T	LA0F057	0	PURCHASE (8) 32' - 22 PASSENGER ALTERNATIVE FUEL TROLLEY STYLE BUSES SERVICE EXPANSION: PALMDALE RETAIL CORRIDOR SERVICE AND LANCASTER SENIOR MOBILITY SERVICE. (L/P UZA)	$2,700
T	LA0F058	0	PURCHASE (6) 30' - 18 PASSENGER SERVICE EXPANSION BUSES FOR LAKE LOS ANGELES, ROUTE 6. (L/P UZA)	$576
T	LA0F059	0	UPGRADE SECURITY CAMERA SYSTEMS (L/P UZA)	$1,200
T	LA0F064	0	SECURITY MEASURES (OAKLAND & LA FACILITIES) (IN THE CITY OF OAKLAND, ALAMEDA CO. & L.A., L.A. CO. AT THE 8TH ST. RAIL YARD, REDONDO JUNCTION MAINT FACILITIES. CONST. SEC. PPNO#2061	$3,540
T	LA0F099	0	TRANSIT CENTER AND PARK AND RIDE; CONSIST OF BUS STOP AMENITIES INCLUDING NEW BUS SHELTER, BENCHES, LANDSCAPING ETC.THE TRANSIT CENTER WILL BE SUPPORTED BY A 283 SPACE PARK & RIDE	$800
T	LA29202U1	0	SAN FERNANDO VALLEY E/W BRT (FROM TERMINUS OF METRO RED LINE IN NO HOLLYWOOD TO WARNER CTR)14-MILE EXCLUSIVE BUS LANES AT FORMER RAIL RD ROW (PPNO 3333 AB3090REP) SAFETEA-LU # 326	$21,129
T	LA29202U3	0	SAN FERNANDO VALLEY NORTH/SOUTH BRT EXTENSION PHASE I: METRO RAPID SERVICE ALONG RESEDA BLVD. AND SEPULVEDA BLVD. SAFETEA-LU # 183	$11,702
T	LA29202U4	0	SAN FERNANDO VALLEY NORTH/ SOUTH BRT EXTENSION PHASE II: BUS SPEED IMPROVEMENTS ALONG METRO RAPID CORRIDORS AND EXPANSION OF EXISTING PARK & RIDE FACILITY.	$29,046

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA29202U5	0	SAN FERNANDO VALLEY NORTH/ SOUTH BRT EXTENSION PHASE III: STATION ACCESSIBILITY AND PEDESTRIAN ENHANCEMENTS ON RESEDA BLVD., SEPULVEDA BLVD., AND LANKERSHIM BLVD.	$88,000
T	LA29202U6	0	SAN FERNANDO VALLEY NORTH/ SOUTH BRT EXTENSION PHASE IV: COMPLETION OF A NORTHBOUND BUS ONLY LANE ON A PORTION OF SEPULVEDA BLVD. AND OTHER IMPROVEMENTS.	$90,000
T	LA29202V	0	EASTSIDE TRANSIT CORRIDOR - UNION STATION TO ATLANTIC VIA 1ST ST. TO LORENA, THEN 3RD ST. VIA 3RD/BEVERLY BLVD. TO ATLANTIC (EASTSIDE LRT PPNO 3358)	$899,000
T	LA29202W	0	MID -CITY TRANSIT CORRIDOR: WILSHIRE BLVD. FROM VERMONT TO SANTA MONICA DOWNTOWN- MID-CITY WILSHIRE BRT INCL. DIV. EXPANSION	$200,000
T	LA29212XY	0	METRO RAIL GOLD LINE EXTENSION SEGMENT 1- PASADENA TO AZUSA-CITRUS STATION (COST INCLUDES O&M AT 29% OF TOTAL COST)	$720,464
T	LA29228	0	METROLINK COMMUTER RAIL OPERATING ASSISTANCE	$94,913
T	LA50200	0	PREVENTIVE MAINTENANCE (LANCASTER/PALMDALE UZA).	$33,379
T	LA50300	0	OPERATING ASSISTANCE - TRANIST OPERATIONS AND DIAL-A -RIDE	$4,061
T	LA51600	0	OPERATING ASSISTANCE TRANSIT OPERATIONS: DIAL-A-RIDE	$442
T	LA52100	0	OPERATING ASSISTANCE	$20,530
T	LA52101	0	COP DEBT SERVICE LOCAL MATCH IS IN-KIND THROUGH REAL ESTATE	$4,860
T	LA52105	0	TIRE LEASING	$320
T	LA52107	0	PURCHASE ENGINES, TRANSMISSIONS, & OTHER SUBSTANTIAL BUS COMPONENTS.	$200
T	LA52600	0	FY 2006/07 OPERATING ASSISTANCE - TRANSIT OPERATIONS	$13,146
T	LA52603	0	ANNUAL TIRE PURCHASE	$389
T	LA55201	0	CONTINUING PROJECT - BUS STOP IMPROVEMENTS ,AMENITIES ,SHELTERS ,ETC	$2,385
T	LA55205	0	ASSOCIATED CAPITAL MAINTENANCE ITEMS (ONGOING)	$7,361
T	LA55207	0	TRANSIT COACH TIRE (LEASE) (ONGOING)	$1,064
T	LA55216	0	ONGOING CORPORATE YARD MISCELANEOUS IMPROVEMENTS FOR THE TRANSIT FACILITY AT THE EXISTING LOCATION: 311 SOUTH GREENWOOD AVE. MONTEBELLO & 400 S. TAYLOR AVE. MONTEBELLO	$2,487
T	LA56702	0	BUS VEHICLE LEASE	$2,886
T	LA57101	0	BUS FACILITY IMPROVEMENTS	$77,124
T	LA57110	0	BUS REPLACEMENT: FIVE ALTERNATIVE FUELED BUSES (20 OR 30 FT WITH ASSOCIATED INFRASTRUCTURE) AND TEN ALTERNATIVE FUELED BUSES (40 FT)	$11,500

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA62407	0	LAND ACQUISITION AND FACILITY EXPANSION/BUS SHELTER AND_WAREHOUSE CONSTRUCTION (IRWINDALE FACILITY).	$3,150
T	LA65406	0	ONGOING BUS REPLACEMENT: 2006-QTY 1- NEW FLYER HYBRIDS & 2008 - QTY 9 -NEW FLYER HYBRIDS. SAFETEA-LU # 92	$8,491
T	LA900520	0	PURCHASE OF ADD'L 386 REPLACEMENT VEHICLES FROM FY06 TO FY09. 100 VEHICLES IN FY06, 114 VEHICLES IN FY07; 110 IN FY08 AND 62 IN FY09.	$35,869
T	LA960202	0	PHASE II OF MAINTAINANCE AND OPERATIONS FACILITY CONSTRUCTION (UZA-LA) LOCATED AT 42210 6TH STREET WEST, LANCASTER(LA UZA)	$6,000
T	LA960203	0	ADMINISTRATIVE CAPITAL AND MAINTENANCE CAPITAL (LANCASTER/PALMDALE UZA)	$510
T	LA963505	0	METROLNK REHABILITATION/RENOVATION (TRACK, SIGNAL, STRUCTURE AND ROLLING STOCK)	$47,700
T	LA963526	0	BUS STOP ENHANCEMENT	$397
T	LA963542	0	ACQUISTION REVENUE VEHICLES - 2,513 CLEAN FUEL BUSES: LEASED VEH, FY02 (370) FY03 (30 HC) + FY04 (70 HC) + (200 ARTICS); FY05-FY10 TOTAL OF 1000 BUSES.	$409,250
T	LA963543	0	PREVENTIVE MAINTENANCE (CAPITAL & OPERATING MAINTENANCE ITEMS ONLY)	$1,360,250
T	LA963546	0	BUS & RAIL CAPITAL, INCLUDES FACILITY UPGRADE, EQUIP, SPARE PARTS, NON-REV VEHICLES, MAINTENANCE SUPPORT, ITS, ETC.	$345,022
T	LA963550	0	SECURITY OF L.A. COUNTY RAIL ROW ON WHICH SCRRA OPERATES. SERVICES PROVIDED BY L.A. CO. SHERIFF	$9,872
T	LA963580	0	RADIO SYSTEM; REPLACEMENT OF EXISTING RADIO/DISPATCH SYSTEM / ADVANCED BUS TECHNOLOGY	$10,300
T	LA970501	0	ANNUAL EXPENDITURES INCLUDING SERVICE PROVIDER CONTRACTS & CAPITAL EXPENSES. UPDATE ADDING ADDITIONAL 4-YEAR OPERATING AND CAPITAL EXPENSE.	$178,640
T	LA973010	0	ENGINE REBUILDS FOR SERVICE FLEET	$805
T	LA973018	0	TRANSMISSION REBUILDS FOR SERVICE FLEET	$250
T	LA973503	0	DOWNTOWN TRANSIT MALL ENHANCEMENTS; REMODEL EXISTING SPACE TO OPEN A TRANSIT CUSTOMER SERVICE CENTER	$1,511
T	LA974165	0	MACARTHUR PARK STATION IMPROVEMENTS INCLUDE DESIGN AND CONSTRUCTION OF A PLAZA TO ACCOMODATE PUBLIC ACCESS (PEDESTRIAN ENTRABCES, WALKWAYS, BICYCLE FACILITIES) PPNO# 3417	$1,931
T	LA9811004	0	PURCHASE OF TEN (10) DIAL-A-RIDE VANS FOR THE ARCADIA TRANSIT SYSTEM REPLACEMENT VEHICLES (MODEL YEAR 1998) RTAA PROJECT	$618
T	LA9811007	0	AVL SYSTEM, ARRIVAL SIGNS, FUEL MGMT. SYSTEM (SMART BUS PROJECT)	$14,000
T	LA9811008	0	CONSTRUCTION OF A NEW ADMIN. & MAINTENANCE TRANSIT FACILITY. CROSS STREETS ARE 139TH ST AND WESTERN AVE..	$48,114

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LA982252	0	CONSTRUCT OPERATIONS SUPPORT FACILITY TRANSPO ADMIN, OPERATIONS, MAINTENCE PUBLIC SERVICE TRANSIT CTR AT CIVIC CENTER DR. (CONTINUING)	$2,419
T	LA990305	0	LIGHT RAIL TRANSIT FLEET- 50 NEW RAIL CAR (26 EXP (10 FOR METRO GOLD LINE EASTSIDE & (16) FOR EXPOSITION LRT) 24 RE-PLACEMENT CARS - .PPNO 3225.	$207,810
T	LA990716	0	BUS FLEET REPLACEMENT OF 2 VEHICLES. THE VEHICLES WILL HOLD 21 PASSENGERS AND COST $124K	$124
T	LA990724	0	RADIOS ON BUSES 72 VEHICLES TO INCLUDE AVL SYSTEM	$2,917
T	LA996012	0	DNTWN SAN PEDRO TRAN HUB DEV DEV MIXED TRANSIT HUB IN SAN PEDRO (LOCATION TO BE DETERMINED) P/E ONLY.	$6,455
T	LA996054	0	MULTI-MODAL TRANSPORTATION CENTER AT THE SO WEST CORNER OF 6TH ST AND TECHNOLOGY DR (2000 CFP 7039). PPNO 2907.	$9,979
T	LA996086	0	REPLACMENT - 3 ALTERNATIVE FUEL SHUTTLES	$376
T	LAE0001A	0	PURCHASE OF CNG BUSES FOR GLENDALE BEELINE TRANSIT SYSTEM	$786
T	LAE0036	0	WILSHIRE/ VERMONT PEDESTRIAN PLAZA IMPROVEMENTS AND INTERMODAL PEDESTRIAN LINKAGES	$1,960
T	LAE0039	0	TRANSIT VILLAGE - PROVIDE A TRANS. FACILITY FOR SATELLITE PARKING FOR SIERRA MADRE VILLA GOLD LINE STA, P-N-R FOR COM-MUTERS, A FOOTHILL TRANSIT STORE.	$3,009
T	LAE0085	0	ACQUISITION OF EPA AND CARB CERTIFIED LOW EMISSION REPLACEMENT BUSES, SAFETEA-LU ID NO. 85	$6,508
T	LAE0108	0	PURCHASE TWO TRIPPER BUSES TO RELIEVE OVERCROWDING DURING PEAK PERIODS. ROUTE G AND D, BLUELINE STATION AT DEL AMO BLVD/I-710 TO SOUTH BAY PAVILION MALL, DEL AMO BLVD	$502
T	LAE0119	0	CNG TRANSIT VEHICLES PURCHASE FOR LOCAL TRANSIT NETWORK EXPANSION	$640
T	LAE0121	0	IMPROVE TRANSIT SHELTERS, SIDEWALKS, LIGHTING AND LANDSCAPING AROUND CEDARS-SINAI MEDICAL CENTER	$1,566
T	LAE0127	0	PROCUREMENT OF (3) CNG TRANSIT VEHICLES AND RELATED INFRASTRCTURE EQUIPMENT FOR FIXED ROUTE PUBLIC TRANSPORTA-TION.	$3,178
T	LAE0132	0	PURCHASE OF ONE BUS.REPLACEMENT OF A 1983 CROWN DIESEL FUEL SCHOOL BUS WITH THE PURCHASE OF A NEW CNG-POWERED SCHOOL BUS. BUS WILL REDUCE EMISSIONS & CONTINUE TO PROVIDE TRANSPORTA	$250
T	LAE0158	0	PARKING AND ELECTRONIC SIGNAGE IMPROVEMENTS AT COVINA, EL MONTE, BALDWIN PARK AND UPLAND.	$1,829
T	LAE0172	0	PURCHASE REPLACEMENT LNG BUSES FOR SANTA MONICA'S BIG BLUE BUS TRANSIT SERVICE	$20,100
T	LAE0191B	0	SAFETY IMPROVEMENTS AT BUS STOPS, INCLUDING BUS LOADING AREAS, LIGHTING, PASSENGER AMENITIES, BUS PADS & TURNOUTS, IMPROVED DRAINAGE, & APPURTENANT WORK (SAFETEA-LU # 191 & # 321)	$2,731

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LAE0195	0	DESIGN AND CONSTRUCT IMPROVED PEDESTRIAN LINKAGES BETWEEN LOS ANGELES PIERCE COLLEGE AND MTA'S RAPID BUS TRANSIT STOPS TO INCLUDE PASSENGER AMENITIES	$4,049
T	LAE0200	0	PURCHASE OF BUS FLEET REPLACEMENT PROJECTS. GASOLINE HYBRID ELECTRIC LOW FLOOR 40' & 35' BUSES. PURCHASING A TOTAL OF 40 BUSES.(SAFETEALU # 200)	$702
T	LAE0212	0	FEASIBILITY STUDY - CONSTRUCTION OF DOWNTOWN STREETCAR PROJECT	$1,002
T	LAE0276	0	MUSEUM OF LATIN AMERICAN ART, LONG BEACH TO BUILD INTERMODAL PARK AND RIDE FACILITY	$2,006
T	LAE0295	0	PURCHASE ONE LARGER (75 PASSENGERS) AND TWO SMALLER (40 PASSENGERS) FERRYBOATS AND CONSTRUCT RELATED DOCK WORK TO FACILITATE THE USE & ACCESSIBILITY OF THE FERRYBOATS	$3,135
T	LAE0332	0	LONG BEACH PARK AND RIDE FACILTY AT 3RD STREET AND PACIFIC AVE SOUTH OF THE MTA BLUE LINE PACIFIC STATION. 300 TO 500 SPACE AND INCLUDE RESIDENTIAL AND COMMERICAL DEVELOPMENT	$1,002
T	LAE0364	0	CONSTRUCT INTERMODAL PARK AND RIDE FACILITY AT SANTA MONICA COLLEGE CAMPUS ON SOUTH BUNDY DRIVE NEAR AIRPORT AVENUE	$2,000
T	LAE0388A	0	DESIGN AND CONSTRUCT IMPROVED PEDESTRIAN LINKAGES BETWEEN LOS ANGELES MISSION COLLEGE AND PUBLIC TRANSIT SERVICES TO INCLUDE LIGHTING, LANDSCAPIND, AND PASSENGER AMENITIES	$263
T	LAE0396	0	UPGRADE EXIST - REG,L TRANSIT & LAYOVER FACILITY ADJACENT TO THE BURBANK-GLENDALE-PASADENA AIRPORT. WILL FACILITATE TRANSFER OF PASSENGERS TO & FROM MANY GROUND TRANS. (PE ONLY)	$1,146
T	LAE0407	0	PURCHASE ONE TROLLEY BUS VEHICLE FOR EXISTING SERVICE ALONG CARSON ST. BETWEEN THE HARBOR TRANSIT WAY STATION AND THE CARSON CIVIC CENTER AT AVALON BLVD	$271
T	LAE0410	0	PURCHASE TEN CLEAN FUEL (HYBRID ELECTRIC), LARGE CAPACITY, ADA COMPLIANT, REPLACEMENT BUSES (SAFETEA-LU # 410)	$3,022
T	LAE0443	0	CAPITAL IMPROVEMENTS TO SUPPORT AND ENHANCE THE CAL STATE UNIVERSITY NORTHRIDGE TRAM SYSTEM	$340
T	LAE0566	0	EXPANSION OF LAX REMOTE TERMINAL FLYAWAY SHUTTLE BUS SYSTEM. LAWA AIRPORTS WILL OPERATE BUSES BETWEEN THESE PARK-N-RIDE LOTS AND L.A. INTERNATIONAL AIRPORT. SITES BEING CONSIDERED	$3,124
T	LAE0567	0	LAX INTERMODAL TRANSPORTATION CENTER RAIL & BUS FACILITIES AT THE NORTHEAST CORNER OF AVIATION BLVD AND IMPERIAL HWY. INCLUDES PEDESTRIAN CONNECTION TO THE EXISTING GREEN LINE .	$3,125
T	LAE1306	0	PILOT SHUTTLE TRAIN PROJECT FROM THE PORTS OF LOS ANGELES AND LONG BEACH TO THE INLAND EMPIRE UTILIZING THE ALAMEDA CORRIDOR	$10,823

LOS ANGELES COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	LAE5314	0	SOUTHERN CALIFORNIA REGIONAL TRANSIT TRAINING CONSORTIUM. PART OF SECTION 5314 NATIONAL RESEARCH AND TECHNOLOGY PROGRAMS THROUGH SAFETEA-LU	$1,480
T	LA0D372	0	SOUTH ACCESS PEDESTRIAN BRIDGE TO SIERRA MADRE VILLA LIGHT RAIL STATION. THIS PEDESTRIAN BRIDGE OVER THE ROUTE 210 FREEWAY WILL PROVIDE A DIRECT AND SAFE APPROACH FOR PEDESTRIANS	$6,500

* S=State Highway, L=Local Highway, T=Transit

ORANGE COUNTY RTIP PROJECTS

ORANGE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	ORA040607	0	ORANGE COUNTY - COUNTYWIDE ACTIVITIES: PLANNING, PROGRAMMING AND MONITORING (PPM)	$9,557
S	ORA010200	1	PACIFIC COAST HWY @ DEL OBISPO, WIDEN INTERSECTION, ADD A WB RIGHT TURN LANE ON PCH AND A SECOND NB THROUGH LANE ON DEL OBISPO STREET. FRM 2 TO 3. (00-DPNT-IIP-3059)	$1,417
S	10167	5	I-5 FROM SR-91 TO LA COUNTY LINE IN BUENA PARK - ADD 1 MIXED FLOW LN AND 1 HOV LN IN EACH DIRECTION FROM 6+0 TO 8+2 LANES.	$323,805
S	ORA000100	5	GENE AUTRY WAY WEST @ I-5 (I-5 HOV TRANSITWAY TO HASTER) ADD OVERCROSSING ON I-5 (S)/MANCHESTER AND EXTEND GENE AUTRY WAY WEST FROM I-5 TO HASTER (3 LANES IN EA DIR.)	$62,724
S	ORA000122	5	I-5 @ LA PAZ INTERCHANGE IMPROVEMENTS. EXPAND LA PAZ RD. FROM 4 TO 6 LANES TOTAL. (99-LHILL-GMA-1125)	$5,708
S	ORA020108	5	I-5 AT CULVER DRIVE S/B OFFRAMP WIDENING FROM ONE TO TWO LANES	$3,206
S	ORA020109	5	I-5 AT CAMINO CAPISTRANO INTERSECTION IMPROVEMENT. WIDEN S/B OFFRAMP FROM 2 TO 3 LANES.	$22,845
S	ORA020111	5	I-5 AT AVENIDA PICO SOUTHBOUND OFF RAMP WIDENING FROM 1 TO 2 LANES AND EXTEND THE EXISTING AUX LANE TO CONNECT WITH S/B AUX LANE VISTA HERMOSA ON RAMP.	$10,419
S	ORA020112	5	I-5 SOUTHBOUND AT OSO PARKWAY EXIT LANE AND INTERCHANGE IMPROVEMENTS. WIDEN FROM 1 TO 2 LANES AND ADD AN EXIT/ STORAGE LANE. PLUS SIGHT DISTANCE IMPROV. TO N/B OFF RAMP.	$29,478
S	ORA030602	5	IN SAN CLEMENTE - SB CAMINO DE ESTRELLA - WIDEN OFF RAMP FROM 1 TO 2 LANES AND WIDEN OVERCROSSING FROM 5 TO 7 LANES (1 W/B LEFT TURN LANE AND 1 E/B LANE)	$12,113
S	ORA030604	5	IN THE CITY OF MISSION VIEJO SB OFFRAMP AT CROWN VALLEY PARKWAY - WIDEN OFF RAMP FROM 4 TO 5 LANES	$2,396
S	ORA110607	5	IN ORANGE COUNTY, ON ROUTE 5 FROM CALLE JUANITA TO 4TH STREET. PROVIDE ENHANCED PAVING AND LANDSCAPING	$1,499
S	ORA120326	5	AT I-5 AND SR-74/ORTEGA HWY - REBUILD INTERCHANGE INCLUDING WIDENING OF SR-74 OVERCROSSING	$82,063
S	ORA120359	5	I-5 @ JAMBOREE - CONSTRUCT AUX LN ON I-5 SB; WIDEN SB OFF-RAMP FROM 1 TO 2 LANES; AND WIDENING JAMBOREE RD EB UNDERCROSSING TO CREATE A TURN LANE TO NB ON-RAMP	$9,990
S	ORA120401	5	SOUTHBOUND INTERSTATE 5 FROM EL CAMINO REAL TO AVENIDA RAMONA - SOUNDWALL DESIGN AND CONSTRUCTION	$4,498
S	ORA120402	5	IN SAN CLEMENTE NORTHBOUND INTERSTATE 5 AT AVENIDA VAQUERO - SOUNDWALL DESIGN AND CONSTRUCTION	$3,196
S	ORA55059	5	ARTESIA @ I-5 (KNOTT TO BOTRYOIDES) INTERSECTION IMP REALIGN N/B OFFRAMP AND S/B ONRAMP; IN CONJ W/ I-5 WIDENING. FROM 2 TO 3 LANES. I-5 E TO BOTRYOIDES BLVD. (PS&E ONLY)	$2,875
S	ORA55063	5	I-5 @ AVERY PARKWAY (MARGUERITE TO CAMINO CAPISTRANO) INTERCHANGE IMPROVEMENTS. WIDEN FROM 4 TO 5 LANES (FOR TURN LANE) UNDER FREEWAY BRIDGE.	$840

ORANGE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	ORA000193	22	HIOV CONNECTORS ON 22/405 BTWN SEAL BEACH BLVD & VALLEY VIEW & ON 405/605 BTWN KATELLA AVE & SEAL BEACH BLVD WITH 2ND HOV LNE IN EACH DIRECTION ON 405 BTWN CONNECTORS EA 071631	$469,525
S	ORA000195	22	ON SR-22 (I-405 TO SR55) ADD 2 HOV LANES/1 EA DIR (FRM 0 - 2) & 2 AUX LANES/1 EA DIR (FRM 0- 2) (I-5 TO BEACH) & OPERATING IMPROVMENTS (SEE COMMENTS) TCRP PAYBACK WHEN AVAILABLE	$546,587
S	ORA100510	22	REPLACE SR22 INTERCHANGES, CONSTRUCT HOV LANES AND LENGTHEN BRIDGES IN GARDEN GROVE	$13,520
S	ORA981104	22	RECONSTRUCT HARBOR BLVD INTERCHANGE. 4 LANES EACH DIRECTION (1/4 MILE BEFORE AND AFTER SR-22 RAMPS) 2 HOV LNES(1 E/B & 1 W/B) AND PROPOSED SR-22 HOV LANES.	$4,794
S	550	55	ALTON AVE IN SANTA ANA CONSTRUCT A NEW 4-LANE (2E/B AND 2W/B) OVERCROSSING & HOV ACCESS RAMPS @SR-55 -	$76,988
S	ORA000146	55	MEATS AVE @ SR55 INTERCHANGE. CONSTRUCT ON-RAMP/OFF-RAMPS. PART OF SR-55 ENHANCEMENT PROJECTS.(0 TO 2 LANES)	$154,041
S	ORA015	55	BAKER STREET AND SR-55; N/B & S/B FRONTAGE ROAD IMPROVEMENTS. S/B FREE RIGHT TURN, N/B LEFT-TURN AND 2ND E/B LEFT.	$900
S	ORA016	55	PAULARINO AVE (SR-55 @ PAULARINO AVE) IN COSTA MESA INTERSECTION IMPROVEMENT. ADDING A N/B RAMP AND W/B RIGHT-TURN-LANE.	$505
S	ORA017	55	PAULARINO AVE IN COSTA MESA. INTERSECTION IMPROVEMENT ADD S/B RIGHT-TURN LANE.	$270
S	ORA030603	55	CONSTRUCT 1 AUX LANE ON S/B SR-55 BETWEEN E EDINGER AVE OFF RAMP AND DYER RD ON RAMP	$34,617
S	ORA030610	55	ADD SOUTHBOUND AUXILIARY LANE FROM DYER TO MACARTHUR	$2,619
S	ORA000107	57	AT LAMBERT IN CITY OF BREA. FWY/ARTERIAL (FROM 2 TO 3 LANES) ON RAMP	$4,985
S	ORA120320	57	SR-57/LAMBERT RD INTERCHANGE IMPROVEMENTS - RECONFIG EXISTING DIAMOND INTERCHANGE TO LOOP RAMP, ADD SB LN ON OFFRAMP	$35,000
S	ORA120332	57	ADD ONE MF LANE ON N/B SR-57 FROM 0.4 MI N/O SR-91 TO 0.1 MI N/O LAMBERT RD (5.1 MILES)	$181,730
S	ORA120333	57	EXIST 4 MF N/B; WIDEN TO 5 MF LANES N/B FROM 0.3 MI S/O KATELLA TO 0.3 MI N/O LINCOLN (2.92 MILES) -- 0F0400	$41,086
S	10254	73	SJHTC, 15 MI TOLL RD BETWEEN I-5 IN SAN JUAN CAPISTRANO AND RTE 73 IN IRVINE, EXISTING 3 MF EA. DIR. 1 ADD'L MF EA. DIR., PLUS CLIMBING AND AUX LNS AS REQ, BY 2015 PER SCAG/TCA MOU 4/5/01. TCM. (INTERIM PHASES INCLUDED IN PROJECT. SEE MODEL LIST FOR FURTHER DETAIL)	$343,000
S	ORA000152	74	ORTEGA HWY (RANCHO VIEJO RD TO JUST EAST OF I-5/SR-74 INTERCHAGE) RDWAY WIDEN ADD RT TRN LNE TO CAPAC & REDUCE QUE ON WB SR-74 TO NB I-5 TRN. N/B FRM 2TO3 & S/B 2TO3 .	$2,550
S	ORA120507	74	ORANGE COUNTY - ORTEGA HWY (SAN CLEMENTE) - WIDEN FRM 2 TO 4 LNS; CALLE ENTRADERO TO ANTONIO PKWY	$54,071

ORANGE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	ORA000115	90	IMPERIAL HWY SMART ST (LAC TO HARBOR) RESTRIPE 4 TO 6 LNS (LAC LINE TO IDAHO ST. ADD RAISED MEDIAN. MODFY MEDIANS AT 4 INTSECS. ADD BUS PADS, TURNOUTS.(COMBINES ORA028 AND ORA029)	$10,663
S	ORA021201	90	IMPERIAL HWY SMART ST (HARBOR TO SR57) RESTRIPE 4 - 6 LNS (HARBOR BLVD & BERRY ST MEDIAN MODIFICATNS AT PUENTE INTERSEC. BUS PADS, BUS TURNOUTS & SOUNDWALLS AT VAR LOCATIONS	$2,541
S	ORA030601	91	ADD 1 MF LANE E/B BTWN 91/55 CONNECTOR & E OF WEIR CNYN RD IC -- W/B BTWN E OF WEIR CYN RD IC & IMPERIAL HWY; MODIFY W/B ON RAMPS FROM LAKEVIEW AVE TO IMPRV MERGE - 0G3300	$118,658
S	ORA040601	91	ACQUIRE AND INSTALL VALUE PRICING PILOT SYSTEM ON THE 91 EXPRESS LANES TO TEST VIABILITY OF DYNAMIC PRICING OF TOLL LANES	$1,089
S	ORA120336	91	SR-91 EASTBOUND LANE ADDITION BETWEEN SR-241 & SR-71, & IMPROVE NB SR-71 CONNECTOR FROM SR-91 TO STD; ONE LANE AND SHOULDER WIDTH.	$96,481
S	ORA050	241	ETC(RTE 241/261/133) (RTE 91 TO I-5/JAMBOREE) EXISTING 2MF EA DIR, 2 ADD'L MF EA. DIR., PLUS CLIMBING AND AUX LNS AS REQ BY 2015 PER SCAG/TCA MOU 4/5/01. TCM. ADD INTERCHANGE AT WEIR CANYON AND JEFFREY. (INTERIM PHASES INCLUDED IN PROJ-ECT. SEE MODEL LIST FOR FURTHER DETAIL)	$548,000
S	ORA051	241	(FTC-N) (OSO PKWY TO ETC) (13MI) EXISTING 2MF IN EA DIR, 2 ADDITIONAL MF LANES, PLS CLIMBING AND AUX LANES AS REQ BY 2015 PER SCAG/TCA MOU 4/5/01. TCM. RAMP IMPROVEMENTS IN EAST ORANGE. (INTERIM PHASES INCLUDED IN PROJECT. SEE MODEL LIST FOR FURTHER DETAIL)	$118,000
S	ORA052	241	(FTC-S) TOLL RD (I-5 TO OSO PKWY) (15MI) 2 MF EA. DIR BY 2013; AND 1 ADDITIONAL MF EA. DIR. PLS CLIMBING AND AUX LANES AS REQ BY 2030 PER SCAG/TCA MOU 4/5/01. 2013 (2+2) AND 2030 (3+3) TCM.	$705,000
S	ORA000111	405	NEW OFF-RAMP ON I-405 AT SUSAN STREET @ S. COAST DRIVE (REPLACED W/ORA000186, ORA000110, ORA000182, ORA000191. (FROM 0 TO 1 LANE)	$2,402
S	ORA020103	405	COSTA MESA (FAIRVIEW RD @ I-405 INTERCHANGE) ADD 3RD S/B LEFT-TURN LANE AND 3RD S/B I-405 ONRAMP LANE.	$7,330
S	ORA020110	405	I-405 NORTHBOUND AUXILIARY LANE (MAGNOLIA TO BEACH BLVD) ADD ONE AUX. LANE N/B & S/B -- FROM 5 TO 6 LANES IN EACH DIRECTION.	$25,652
S	ORA030605	405	CONSTRUCT ONE ADDITIONAL ALL PURPOSE LANE IN EACH DIRECTION ON I-405 AND PROVIDE ADDITIONAL CAPITAL IMPROVEMENTS FROM SR 73 THROUGH THE LA COUNTY LINE #317	$635,234
S	ORA045	405	BOLSA AVE (CHESTNUT TO GOLDENWEST) WIDEN BOLSA AVE BRIDGE FROM 4 TO 6 LANES	$2,200
S	ORA100507	405	CONSTRUCT FOURTH NB THROUGH LANE ON BEACH BLVD AT THE I-405 INTERCHANGE AND REMOVE OFF-RAMP ON I-405 AT BEACH (NORTH-EAST CORNER OF BEACH/EDINGER)	$1,138
L	ORA000109	0	COSTA MESA - NB HARBOR BLVD (SB ON RAMP TO SUNFLOWER DR) CHANNELIZATIONS AND OPERATIONS IMP AT THE 1-405 INTER-CHANGE	$3,372
L	ORA000110	0	KATELLA AVE SMART ST (HUMOR TO JEAN) WIDEN FRM 4 TO 6 LANES	$11,607

ORANGE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	ORA000118	0	SAND CYN RD @ SCRRA TRACKS (BURT RD TO LAGUNA CANYON/OAK CANYON) - RAILROAD GRADE SEPARATION. WIDENS FROM 4 TO 6 LANES.	$23,187
L	ORA000125	0	MOULTON PKWY (SANTA MARIA TO EL PACIFICO) WIDEN FRM 7 TO 9 LANES (N/B 3 TO 4 AND S/B 4 TO 5), WIDEN INTERSECTIONS, ADD SIDEWALK AND LANDSCAPING.	$7,685
L	ORA000131	0	CONSRUCT NEW OVERPASS ON RIDGE ROUTE DR AT I-5 FROM WEST SIDE OF I-5 TO EAST SIDE OF I-5 ON RIDGE ROUTE (FROM 0 TO 4 LANES).	$1,200
L	ORA000135	0	GOLDEN LANTERN @ CAMINO DEL AVION INTERSECTION WIDENING. ADD DEDICATED SB LT LANE/ WB RT LANE/ AND NB RT LANE.	$100
L	ORA000136	0	CROWN VALLEY PKWY @ NIGUEL RD INTERSECTION WIDENING. ADD DEDICATED NB RT LANE -	$50
L	ORA000138	0	CROWN VALLEY PKWY@GREENFIELD INTERSECTION WIDENING. ADD SB RT LANE, WIDEN SOUTHBOUND FRM 5 TO 6 LNES, FRM GREENFIELD TO 200 FT. NORTH. DESIGN ONLY	$150
L	ORA000139	0	CROWN VALLEY PKWY@LA PAZ INTERSECTION WIDENING. ADD 2ND NB LT LANE AT CROWN VALLEY PKWY N/B FRM 4 TO 5 LNES. FRM LA PAZ TO 200 FT. NORTH. DESIGN ONLY	$200
L	ORA000140	0	INTERSECTION WIDENING. CROWN VALLEY PKWY- WEST OF CABOT TO I-5 SB RAMPS. ADD WB THROUGH LANE/ LT AND RT LANES ON CROWN VALLEY PKWY/CABOT AND CORWN VALLEY PKWY/FORBES.	$3,500
L	ORA000147	0	BNSF RWY LINE (PLACENTIA TO IMPERIAL HY) ALONG CROWTHER/ORANGETHORP E. GRADE SEP CORRIDR IMPVS AT 11 ARTERIAL STS INCL P/E, PGM MGMT, PRJ RPT, EIR, RW & CONST & XING CLSURE/PED BRI	$83,228
L	ORA000171	0	MEMORY LANE BRIDGE (PACIFIC AVE TO CITY DRIVE) WIDENING FROM 4 TO 6 LANES.	$4,141
L	ORA000173	0	LA PAZ RD (MURILANDS/I-5 TO CHRISANTA DR) WIDENING FROM 4 TO 6 LANES.	$9,700
L	ORA000177	0	RED HILL @ EDINGER AVE/RR TRACKS. GRADE SEPARATION	$32,241
L	ORA020115	0	CABOT ROAD BRIDGE TO CAMINO CAPISTRANO -PROVIDE ALT ACCESS TO METROLINK STATION & RELIEF TO INTERCHANGE AT I-5 & AVERY	$2,678
L	ORA020501	0	HBRR LOCAL BRIDGE LUMP SUM FOR 2004/2005 - (PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126,127,128, EXEMPT TABLES 2 & 3).	$24,797
L	ORA020503	0	DANA POINT - SEA TERRACE PARK RECREATIONAL TRAILS IN SEA TERRACE PARK (PCH/NIGUEL RD) - EXISTING TRAIL IMPVS & NEW TRAIL CONSTRUCTION	$1,004
L	ORA020506	0	CITY OF ORANGE - SANTA FE DEPOT SPECIFIC PLAN UPDATE	$232
L	ORA020507	0	ORANGE COUNTY COUNCIL OF GOVERNMENTS (OCCOG) - REDUCE ORANGE COUNTY CONGESTION (ROCC) PROGRAM (INCLUDES STUDIES AND PLANNING)	$1,500
L	ORA02925	0	BNSF RAILWAY LINE (RAYMOND TO PLACENTIA) ALONG SS OF ORANGETHORPE. GRADE SEPARATION/ CORRIDOR IMPROVEMENTS AT 3 ARTERIAL STREETS.	$216,469

ORANGE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	ORA040602	0	STATE COLLEGE GRADE SEPARATION: CONSTRUCT A GRADE SEPARATION ON STATE COLLEGE BLVD AT THE BNSF RR TRACKS (COMMONWEALTH AVE TO KIMBERLEY AVE)	$76,683
L	ORA040604	0	EL TORO RD: IMPROVEMENTS OF EL TORO RD FROM 6 TO 8/9 LANES AND ASSOCIATED INTERSECTIONS (I-5 TO JUTEWOOD PL/CORNELIUS DR)	$27,959
L	ORA040605	0	NEWPORT BEACH - JAMBOREE RD WIDENING (BETWEEN BAYVIEW WAY & MACARTHUR BLVD) FROM 6 TO 8 LANES	$1,631
L	ORA040606	0	YORBA LINDA - WEIR CANYON RD WIDENING ADD 1 NB LANE (FROM SR91 TO LA PALMA)	$1,533
L	ORA070501	0	CITY OF IRVINE LONG RANGE TRANSPORTAITON PLAN OUTREACH INITIATIVE - EXTENSIVE OUTREACH TO CREATE A CONSENSUS VISION FOR A MULTI-MODAL TRAN SYSTEM	$60
L	ORA080601	0	PLANNING STUDY FOR THE TRANSIT ORIENTED DEVELOPMENT - LINKING TRANSIT PLANNING AND LAND USE IN NORTH ORANGE COUNTY (OCCOG ROCC)	$270
L	ORA080602	0	PLANNING STUDY TO EVALUATE THE LAND USE IN THE GATEWAY SPECIFIC PLAN (GSP) INCLUDING TRANSIT ORIENTED DEVELOPMENT AND MIXED USE DEVELOPMENT (OCCOG ROCC)	$203
L	ORA080603	0	THE CITY'S CONSULTANT WILL PREPARE A PROGRAM ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE SANTA FE SPECIFIC PLAN UPDATE (OCCOG ROCC)	$223
L	ORA080604	0	PLANNING FOR TRANSIT IN STANTON: CITYWIDE POLICIES AND SITE SPECIFIC DEVELOPMENT STANDARDS FOR TRANSIT-ORIENTED PROJECTS. (OCCOG ROCC)	$264
L	ORA100501	0	THORTON PARK RECREATION TRAIL REFURBISHMENT. INCLUDING REGRADING, REPLACE ASPHALT & CONCRETE, INSTALLATION OF EDGING.	$158
L	ORA100506	0	SIGNAL UPGRADES ON AVENIDA DE LAS FLORES, MELINDA ROAD, AVENIDA DE LAS BANDERAS, AND ALMA ALDEA, IN RSM.	$145
L	ORA100508	0	DEVELOP AND IMPLEMENT AN ITS MASTER PLAN IN ANAHEIM	$1,000
L	ORA100509	0	DESIGN AND IMPLEMENT HARBOR BOULEVARD ITS IN GARDEN GROVE.	$1,320
L	ORA102905	0	CONSTRUCT A BERM & WALL ALONG THE SOUTH SIDE OF ESPERANZA RD FROM IMPERIAL HWY TO WEIR CNYN RD/YORBA LINDA BLVD INCLUDING LANDSCAPING	$4,360
L	ORA110601	0	SANTIAGO CREEK BIKE TRAIL ENHANCMENT PROJECT. EXTEND TRAIL BY 600FT TO RUN UNDER BROADWAY AND I-5. REFURBISH EXISTING TRAIL FROM MAIN TO SANTIAGO PARK	$303
L	ORA110602	0	WIDENING OF LAGUNA CANYON / I-405 OVERCROSSING FROM 2 LANES TO 4 LANES	$12,031
L	ORA110631	0	DEVELOPMENT OF A COUNTYWIDE STANDARD PAVEMENT MANAGEMENT SYSTEM - EVALUATION AND SELECTION OF SINGLE STANDARD PAVEMENT MANAGEMENT SYSTEM SOFTWARE FOR COUNTYWIDE USE	$224
L	ORA110632	0	1% TRANSIT ENHANCEMENTS - BICYCLE AND PEDESTRIAN FACILITIES COUNTYWIDE (MISSION VIEJO)	$878
L	ORA110634	0	1% TRANSIT ENHANCEMENTS - BICYCLE AND PEDESTRIAN FACILITIES COUNTYWIDE (OCTA)	$4,407
L	ORA120305	0	LA PALMA - LA PALMA AVE/DEL AMO BLVD OVER COYOTE CRK - REALIGN EXISTING RDWY TO STRAIGHT; DEMO & RECONSTRUCTION	$800

ORANGE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	ORA120309	0	SAN JUAN CAPISTRANO - LA NOVIA BRIDGE WIDENING, SAN JUAN CREEK TO CALLE ARROYO, FROM 2 - 4 LANES	$9,969
L	ORA120310	0	WESTMINSTER - GOLDENWEST BRIDGE WIDENING OVER I-405, ADD 1 SB LN (5 TO 6 LNS)	$1,450
L	ORA120315	0	IRVINE - SAND CANYON @ I-5 (ADD 3RD AND 4TH NB AND SB THRU LNS ON SND CYN; IMP EB APPROACH ADD 2 LFT TRN LNS, 1 THRU LN, & 1 RT TRN LN)	$7,364
L	ORA120316	0	LAGUNA NIGUEL - CROWN VALLEY PKWY WIDENING (WIDEN SB FROM FORBES TO I-5 ON RAMP; ADD DED RT TRN LN FOR SB I-5 ON RAMP & DED RT TRN LN FOR NB ON RAMP)	$10,109
L	ORA120317	0	ORANGE - CITY OF ORANGE STATION - CONSTRUCT GRADE-SEPARATED PEDESTRIAN CROSSING	$8,000
L	ORA120319	0	BREA - VALENCIA/ROSE INTERSECTION IMPV - ADD LFT TRN LN AND THROUGH LANE IN EB & WB, WB RT TRN LN	$2,093
L	ORA120330	0	SEAL BEACH - SEAL BEACH BLVD, OVERPASS BRIDGE LENGTHENING AND RAMPS REALIGNMENT (FROM BEVERLY MANNTER RD TO OLD RANCH PKWY)	$2,000
L	ORA120351	0	ITS INTERCONNECT 21 SIGNALS FROM THE WEST SIDE OF GARDEN GROVE TO THE CITY'S TMC WITH FIBER OPTICS -- PROJECT CLOSES 3.5 MILE GAP	$2,024
L	ORA120360	0	ORANGE COUNTY - PLANNING PROGRAMMING AND MONITORING AB3090 -- PAYBACK PROJECT	$3,500
L	ORA120501	0	ANAHEIM - BROOKHURST STREET WIDENING (FROM 4 TO 6 LANES; S/O BALL TO N/O KATELLA)	$13,025
L	ORA120502	0	COSTA MESA NEWPORT BLVD WIDENING - 1 LN EA DIR (FROM 19TH TO HARBOR; FRM 6 TO 8 LNS)	$2,559
L	ORA120503	0	COSTA MESA - NEWPORT BLVD/17ST INTERSECTION IMPV - ON NEWPORT ADD 4TH NB THRU LN AND SB RT TRN LN	$2,406
L	ORA120504	0	ORANGE COUNTY - LA PATA AVENUE WIDENING & GAP CLOSURE (WIDEN FROM 2 TO 4 LNS (ORTEGA HWY TO RD TERMINUS); GAP CLOSURE - ADD 4 LNS (EXISTING TERMINUS TO CALLE SALUDA)	$38,560
L	ORA120505	0	ORANGE COUNTY - ALTON PARKWAY EXTENSION (IRVINE) (IRVINE BLVD TO CMMERCENTER DR; FRM 0 TO 6 LNS)	$40,000
L	ORA120508	0	IRVINE - MAC ARTHUR & RED HILL INT IMPV (ADD 3RD WB, EB, NB, SB THRU LNS & NB LFT TRN LN (FRM 4 TO 6 LNS)	$28,336
L	ORA120510	0	IRVINE - BARANCA & RED HILL INT IMPV (ADD 4TH WB, SB, EB, NB THRU LNS & EB/WB LFT TRN LNS & WB DEDICATED RT TRN LN)	$15,475
L	ORA120511	0	IRVINE - JAMBOREE RD @ I-5/MICHELLE (ADD 4TH SB AND NB THRU LANES)	$10,100
L	ORA120512	0	IRVINE - CULVER DR @ I-5/TRABUCO (ADD 5TH LANE ON I-5 SB OFFRAMP; 3RD NB THRU LN; 2ND WB RT TRN LN	$2,885
L	ORA120514	0	IRVINE - TRABUCO RD @ I-133 (ADD NEW ON-RAMPS AND OFF RAMPS AT TRABUCO & I-133)	$71,875
L	ORA120515	0	LA HABRA - LAMBERT RD WIDENING (FRM EUCLID TO CYPRESS ST; FRM 4 TO 6 LNS)	$10,241
L	ORA120518	0	SANTA ANTA - MACARUTHUR BLVD WIDENING (WIDEN NB ONRAMP (FROM EB MACARTHUR) TO SR-55 BY ADDING 1 LN)	$1,841
L	ORA120519	0	SANTA ANA - MACARTHUR BLVD WIDENING (WIDEN SB ONRAMP (FRM EB MACARTHUR) TO SR-55 BY ADDING 1LN)	$1,499

ORANGE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	ORA120520	0	SANTA ANA - GRAND AVENUE WIDENING (FRM 1ST TO 4TH; FRM 2 TO 3 LNS)	$12,437
L	ORA120521	0	SANTA ANA - FIRST STREET WIDENING (FRM SUSAN TO FAIRVIEW; FRM 4 TO 6 LNS)	$5,751
L	ORA120522	0	HUNTINGTON BEACH - ATLANTA AVE WIDENING (FRM FIRST TO DELEWARE; FRM 2 TO 4 LNS)	$3,623
L	ORA120523	0	PLACENTIA - RITCHFIELD AVE WIDENING (FRM ORANGETHORPE TO SCL; FRM 2 TO 4 LNS)	$347
L	ORA120524	0	PLACENTIA - ORANGETHORPE AVE WIDENING (FRM MELROSE AVE TO ECL; FRM 4 TO 6 LNS)	$1,188
L	ORA120525	0	SAN JUAN CAPISTRANO - DEL OBISPO WIDENING (WIDEN FRM ALIPAZ TO CAMINO CAPISTRANO; TO ACCOMMODATE BIKE LANES AND SIDEWALK IN EACH DIRECTION)	$6,419
L	ORA120526	0	FULLERTON - STATE COLLEGE BLVD WIDENING (ORANGETHORPE TO KIMBERLY; FRM 4 TO 6 LNS)	$759
L	ORA120527	0	ORANGE - MAIN ST (WIDEN FRM CULVER TO 260' N/O PALMYRA; FRM 4 TO 6 LNS)	$4,043
L	ORA120528	0	FULLERTON - GILBERT ST WIDENING (FRM CASTLEWOOD TO NCL; FRM 2 TO 4 LNS)	$1,940
L	ORA120534	0	ORANGE COUNTY - COUNTYWIDE GRADE SEPARATION PROGRAM (ENVIRONMENTAL & PREMLIMINARY ENGINGEERING ONLY)	$251,803
L	ORA120538	0	ORANGE COUNTY - HOV DROP RAMP STUDY	$43,784
L	ORA125	0	BRISTOL ST (WARNER TO MEMORY LANE) WIDEN FROM 4 TO 6 LANES (IMPV AT BRISTOL/WARNER (ADD NB/EB/SB THRU LNS; WB RT TRN LN) AND BRISTOL/FIRST (ADD NB/SB THRU LNS; SB LFT/RT/TRN LNS	$257,005
L	ORA151	0	BOLSA CHICA RD (DUNCANNON TO RTE 405) WIDEN FROM 4 TO 6 LANES.	$350
L	ORA48	0	JEFFERY RD (IRVINE CENTER DR TO WALNUT) RAILROAD GRADE SEPARATION. FROM 4 TO 6 LANES.	$44,849
L	ORA55013	0	COUNTYWIDE: ROADWAY REHABILITATION OF MAJOR AND PRIMARY ARTERIALS NON-CAPACITY ADDING IMPROVEMENTS (PROJECTS CONSISTENT W/40 CFR PART 93.126,127,128,EXEMPT TABLES 2 & 3	$128,863
L	ORA55024	0	VALLEY VIEW ST (LINCOLN TO ARTESIA) WIDEN FROM 6 LANES TO 8 LANES.	$1,410
L	ORA55031	0	HARBOR BLVD SMART STREET (SR-91 TO I-405) WIDENING FROM 4 TO 6 LANES AND INTERSECTION IMPROVEMENTS.	$25,663
L	ORA55244	0	TUSTIN RANCH RD (WALNUT AVE TO EDINGER AVE) NEW 6 LANE MAJOR ARTERIAL WITH NEW GRADE SEPARATION AT EDINGER AVE. (1/2 MILE GAP)	$24,728
L	ORA990451	0	MULTI-USE TRAIL IN SAN CLEMENTE CONSTRUCTED PARALLEL TO RAILROAD TRACKS. 2.6 MILES LONG.	$7,205
L	ORA990452	0	TUSTIN BRANCH RAIL TRAIL ALONG THE SANTIAGO CREEK FROM TUSTIN ST. TO WALNUT AVE. AND CITY OWNED RW FROM WALNUT AVE. TO COLLINS AVE. FILLS 2 MILE GAP IN A REGIONAL TRAIL.	$2,391
L	ORA990906	0	LUMP SUM. TEA FUNDS FOR BICYCLE AND PEDESTRIAN FACILITY PROJECTS THROUGHOUT ORANGE COUNTY (PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126,127,128, EXEMPT TABLES 2 & 3)	$22,602

ORANGE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	ORA990907	0	LUMP SUM. TEA FUNDS FOR LANDSCAPING AND OTHER SCENIC IMPROVEMENTS THROUGHOUT ORANGE COUNTY (PROJECTS CONSISTENT WITH 40 CFR PART 93.126,127,128, EXEMPT TABLES 2 & 3)	$18,832
T	ORA000104	0	TRANSITWAY IMPROVEMENTS AT IRVINE TRANSPORTATION CENTER; BUILD 900 SPACE PARKING STRUCTURE, INCLUDING ENVIRONMENTAL, DESIGN AND CONSTRUCTION.	$27,075
T	ORA020106	0	PREVENTATIVE MAINTENANCE (OCTA)	$109,396
T	ORA020113	0	FULLERTON TRAIN STATION - PARKING STRUCTURE, PHASE I AND II. TOTAL OF 500 SPACES (PPNO 2026)	$41,969
T	ORA020118	0	PURCHASE REPLACEMENT PARATRANSIT VANS (353) - (79) IN FY06/07, (67) IN FY07/08, (96) IN FY09/10, (32) IN FY10-11 AND (79) IN FY 11/12	$44,831
T	ORA021202	0	BUS OPERATING ASSISTANCE FTA9 - FOR PARATRANSIT - MISSION VIEJO - UZA	$8,777
T	ORA021203	0	PREVENTATIVE MAINTENANCE (MISSION VIEJO)	$76,563
T	ORA021204	0	'1%' TRANSIT ENHANCEMENTS BUS STOP ADA IMPROVEMENTS COUNTYWIDE (MISSION VIEJO)	$115
T	ORA030612	0	PLACENTIA TRANSIT STATION - E OF SR-57 AND MELROSE ST AND N OF CROWTHER AVE. CONSTRUCT NEW METROLINK STATION AND RAIL SIDEING	$36,196
T	ORA041501	0	PURCHASE (52)STANDARD 30FT EXPANSION BUSES - ALTERNATIVE FUEL - (12) IN FY05-06, (5) IN FY06-07, (2) IN FY07-08, (5) IN FY08-09, (27) IN FY09-10, AND (1) IN FY10-11	$40,036
T	ORA041502	0	PURCHASE (45) PARATRANSIT EXPANSION MINIVANS - (4) IN FY07-08, (11) IN FY08-09, (12) IN FY09-10, AND (8) IN FY10-11 AND (10) IN FY11-12	$4,916
T	ORA090302	0	OCTA SHARE OF PURCHASE OF METROLINK CARS & LOCOS, UP TO 87 CARS/CABS ORDERED IN FY 06 & IN FUTURE YRS, UP TO 22 CARS/CABS, UP TO 11 LOCOS ORDERED BY FY06, & UP TO 4 LOCOS IN FUTURE	$147,524
T	ORA110501	0	BUS RAPID TRANIST - 28MI FIXED BRT FRM BREA MALL TO IRVINE TRANS CNTR. INCLUDES STRUCTURES, ROLLING STOCK, AND FEEDER SVC & IBC SHUTTLE- CNG SHUTTLES FROM JWA TO IBC.	$55,100
T	ORA110608	0	EASTER SEALS SOUTHERN CALIFORNIA - PURCHASE (1) REPLACEMENT MODIFIED VAN FOR PARATRANSIT SERVICE (FY07 CYCLE)	$51
T	ORA110609	0	GOLDEN RAIN FOUNDATION LAGUNA WOODS PRUCHASE (1) REPLACEMENT LARGEST BUS FOR PARATRANSIT SERVICE (FY07 CYCLE)	$51
T	ORA110610	0	ST JUDE HOSPITAL - PURCHASE (2) REPLACEMENT MINI VANS FOR PARATRANSIT SERVICE (FY07 CYCLE)	$87
T	ORA110611	0	CITY OF LA HABRA SENIOR TRANSPORTATION PROGRAM - PURCHASE 2 REPLACEMENT PARATRANSIT VEHICLES	$195
T	ORA110612	0	CITY OF YORBA LINDA SENIOR MOBILITY PROGRAM	$52

ORANGE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	ORA110613	0	SECURITY SURVEILLANCE AND MONITORING EQUIPMENT FOR TRANSIT	$5,528
T	ORA110614	0	CAPITAL LEASE COSTS ASSOCIATED WITH THE CONSTRUCTION AND OPERATIONS OF CNG FUELING STATION AT ANAHEIM MAINTE-NANCE BASE	$9,121
T	ORA110615	0	CAPITAL LEASE COSTS ASSOCIATED WITH THE CONSTRUCTION AND OPERATIONS OF CNG FUELING STATION AT GARDEN GROVE MAIN-TENANCE BASE	$8,740
T	ORA110616	0	BUS RAPID TRANSIT (BRT) - PURCHASE (3) 40' EXPANSION VEHICLES FOR SERVICE IN ORANGE COUNTY	$1,009
T	ORA110617	0	ABRAZAR - PURCHASE (1) SMALL BUS, (2) MINVANS, (8) RADIOS, BASE STATION, COMPUTER EQUIPMENT TO EXPAND PARATRANSIT SERVICE (FY07 CYCLE)	$270
T	ORA110618	0	FTA SECTION 5317 NEW FREEDOMS VARIOUS PROJECTS AND TRANSPORTATION SERVIES BEOND THOSE REQUIRED BY ADA, INCLUDING VOUCHER PROGRAMS	$14,906
T	ORA110619	0	FTA SECTION 5316 JOBS ACCESS REVERSE COMMUTE (JARC) VARIOUS PROJECTS TO INCREASE TRANSPORTATION ACCESS TO JOBS FOR LOW INCOME INDIVIDUALS, INCLUDING VOUCHER PROGRAMS AND VANPOOLS	$19,804
T	ORA110621	0	INTERMODAL PARK AND RIDE FACILITY AT DISCOVERY, CA	$372
T	ORA110624	0	SANTA ANA TRANSIT TERMINAL FACILITY IMPROVEMENTS TO INCREASE VENTILATION / SAFETY	$1,007
T	ORA110625	0	VARIOUS PLANNING & TRANSPORTATION PROJECTS DETERMINED BY THE ORANGE COUNTY COUNCIL OF GOVERNMENTS (OCCOG) TO REDUCE CONGESTION IN OC, INCLUDING SMARTH GROWTH AND INCREASED TRANSIT	$1,047
T	ORA110633	0	RIDESHARE VANPOOL PROGRAM - CAPITAL LEASE COSTS	$13,815
T	ORA120311	0	OCTA SHARE - EASTERN AREA ROLLING STOCK MAINT FACILITY IN COLTON BETWEEN MILL & OAK ST ON RR LINE (LAOC8369 & RIV030634)	$8,300
T	ORA120318	0	ANAHEIM REGIONAL TRANS INTERMODAL CENTER (ARTIC)	$1,106,500
T	ORA120356	0	PURCHASE (64) STANDARD 30FT REPLACEMENT BUSES - ALTERNATIVE FUEL - (27) IN FY06/07, (25) IN FY08-09, AND (12) IN FY 11-12	$29,511
T	ORA120357	0	BUS RAPID TRANSIT (BRT) GUIDEWAY PA&ED & PS&E PHASE - ORANGE COUNTY	$5,363
T	ORA120529	0	PURCHASE (14) REPLACEMENT MINIVANS - (10) IN FY09-10 AND (4) IN FY 11/12	$974
T	ORA120531	0	BUS RAPID TRANIST (HARBOR BOULEVARD BRT) - 19MILE FIXED RT BRT BETWEEN FULLERTON AND COSTA MESA; INCLUDES STRUC-TURES AND ROLLING STOCK	$33,300
T	ORA120532	0	BUS RAPID TRANIST (WESTMINSTER/17TH BRT) - 22MILE FIXED RT BRT BETWEEN SANTA ANA AND LONG BEACH; INCLUDES STRUC-TURES AND ROLLING STOCK	$36,600

ORANGE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	ORA120533	0	ORANGE COUNTY METROLINK MAINTENANCE FACILITY FEASIBILITY STUDY - (STUDY ONLY)	$4,559
T	ORA120536	0	TUSTIN RAIL STATION PARKING EXPANSION - CONSTRUCTION OF 191 NEW SPACES (281 EXISTING SPACES + 191 NEW SPACES = 472 TOTAL SPACES)	$10,000
T	ORA120537	0	LAGUNA NIGUEL RAIL STATION PARKING EXPANSION - CONSTRUCTION OF 562 NEW SPACES (281 EXISTING + 562 NEW = 843 SPACES)	$63,000
T	ORA174	0	BUS OPERATING ASSISTANCE FTA9 - FOR PARATRANSIT (OCTA)	$204,693
T	ORA187	0	DEBT SERVICE FOR 1990 AND 1993 COPS FUNDING OF CAPITAL PROJECTS	$2,600
T	ORA1870	0	PURCHASE (127) STANDARD 40FT REPLACEMENT BUSES - ALT FUEL (14) IN FY06-07, (28) IN FY07-08, (19) IN FY08-09, (2) IN FY09-10, (25) IN FY10-11, (39) IN FY11-12	$125,965
T	ORA199	0	OPERATING ASSISTANCE	$10,156
T	ORA37111	0	CAPITAL MAINTENANCE ON METROLINK SYSTEM. (REHAB OF TRACK, SIGNAL, COMMUNICATIONS, STRUCTURES, FACILITIES, AND ROLLING STOCK)	$33,149
T	ORA37115	0	OPERATING ASSISTANCE FOR COMMUTER RAIL	$139,146
T	ORA37122	0	VEHICLE MODIFICATIONS/MISC, REPLACE SUPP VEHICLES AND SUPPORT EQUIP, BUS AND FACILITY EQUIPMENT	$8,047
T	ORA55022	0	REPLACEMENT CLEAN AIR AND FESTIVAL TROLLIES	$2,370
T	ORA55134	0	FACILITY MODIFICATIONS FOR BUS TRANSIT	$372
T	ORA55241	0	PURCHASE (150) STANDARD 40 FT EXPAN ALT FUEL BUSSES - (17) IN FY06-07, (44) IN FY07-08, (56) IN FY08-09, AND (33) IN FY09/10	$45,788
T	ORA55286	0	COMMUTER RAIL STATION (DALE STREET AND MALVERN) IN BUENA PARK. CONSTRUCT NEW RAIL STATION. 308 PARKING SPACES.	$13,060
T	ORA65002	0	RIDESHARE SERVICES RIDEGUIDE, DATABASE, CUSTOMER INFO, AND MARKETING (ORANGE COUNTY PORTION).	$4,483
T	ORA981102	0	'1%' TRANSIT ENHANCEMENTS BUS STOP ADA IMPROVEMENTS COUNTYWIDE (OCTA)	$521

* S=State Highway, L=Local Highway, T=Transit

RIVERSIDE COUNTY RTIP PROJECTS

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	45580	10	NEAR PALM SPRINGS ON I-10 AT GENE AUTRY TRAIL/PALM DRIVE IC FROM I-10 IC SOUTH TO SALVIA ROAD - WIDEN 2 TO 6 LANES, I-10 IC IMPROVS. MODIFY RAMPS FROM 1 TO 2 LANES	$38,603
S	45590	10	ON I-10 IN CATHEDRAL CITY AT DATE PALM DR IC: MODIFY IC/WIDEN OC & ARTERIAL INCLUDING UPRR BRIDGE 2 TO 6 LNS FROM N. RAMPS SOUTH TO VISTA CHINO & RAMPS FROM 1 TO 2 LNS (EA: 45590K)	$31,149
S	45600	10	ON I-10 NEAR RANCHO MIRAGE FROM 1.5 KM WEST TO 0.9 KM EAST OF RAMON RD IC - CONSTRUCT BOB HOPE DR EXTENSION (6 LANES) W/ A NEW DIAMOND IC & MODIFY RAMON RD IC & RAMPS (PPNO: 0007D)	$67,844
S	47520	10	AT I-10/JEFFERSON ST IC NEAR INDIO, RECONSTRUCT/REALIGN EXISTING IC 2 TO 6 LANES & WIDEN JEFFERSON ST NON-CAPACITY OPERATIONAL IMPROVEMENTS (EA: 475200, PPNO: 0053A)	$73,404
S	RIV010210	10	ON I-10 AT & E/O APACHE TRAIL - CONSTRUCT NEW MORONGO PKWY IC (4 LNS, RAMPS - 2 LNS), CONSTRUCT AUX LANE, WIDEN APACHE TRAIL 3 TO 5 LNS, WIDEN SEMINOLE DR 2 TO 5 LNS (EA: 0A650G)	$30,000
S	RIV030901	10	ON I-10 (5.5 KM E/O DILLON RD & 14.6 KM W/O CACTUS CITY SRRA) CONSTRUCT 6 LN MCNAUGHTON PKWY IC (3 LNS EACH DIR.), ENTRY RAMPS (1 LN) & EXIT RAMPS (2 LNS AT ARTERIAL) (EA: 45210K)	$35,415
S	RIV031208	10	AT I-10/MONTEREY AVE IC - RECONFIGURE IC: CONSTRUCT NEW WB ENTRY RAMP FROM VARNER RD AND REALIGN/RELOCATE WB EXIT RAMP (EA: 0F050)	$8,512
S	RIV031209	10	AT I-10/PORTOLA AVE: CONSTRUCT NEW 6 LN (3 EA DIR) PORTOLA AVE IC & RAMPS FROM DINAH SHORE TO VARNER INCLUDING BRIDGE OVER UPRR & REALIGN/WIDEN VARNER 2 TO 4 LNS (EA: 0F120K)	$71,858
S	RIV060112	10	AT I-10/SUNSET AVE UC - RAMP/GRADE MOD: LOWER SUNSET AVE & RAMPS GRADE, ADD NB RIGHT-TURN LN TO EB ON RAMP, RECON-STRUCT SIDEWALKS, RECONSTRUCT RAMP TERMINALS (EA: 33470K)	$10,942
S	RIV060115	10	AT I-10/OAK VALLEY PKWY IC: RECONSTRUCT/WIDEN IC FROM 2 TO 6 LNS & WIDEN RAMPS, ADD NEW EB/WB ENTRY LOOP RAMPS (2 LNS) , ADD EB/WB AUX LNS (EA: 0G280G)	$12,169
S	RIV060116	10	I-10/CHERRY VALLEY BLVD IC: RECONSTRUCT/WIDEN 2 TO 6 LNS, RAMPS (1- 2 & 1-3 LNS), ADD WB/EB AUX LNS, LEFT-TURN POCKET LNS & INTERSECTION IMPROVEMENTS. (EA: 0G170G)	$32,500
S	RIV060117	10	I-10/SINGLETON RD IC: RECON/WIDEN IC 2 TO 6 LNS & RAMPS-- ENTRY RAMPS: EB (1-2 LNS), ADD WB (2 LNS); EXIT RAMPS: WB (1-3 LNS), ADD EB EXIT (3 LNS), ADD LEFT-TURN LNS (EA: 0F980K)	$28,000
S	RIV62032	10	IN INDIO ON I-10 AT MADISON ST - CONSTRUCT NEW 4 LANE IC & RAMPS (2 LANES) AND WIDEN MADISON ST 2 TO 4 LANES FROM AVENUE 42 TO APPROX 600' BEYOND INDIO BLVD	$15,000
S	RIV62036	10	ON I-10 AT INDIAN AVE IC NEAR PALM SPRINGS - WIDEN OC 2 TO 6 LANES FROM 20TH AVE TO GARNET AVE AND RAMPS 1 TO 2 LANES (TEA21-#377) (EA: 45570, PPNO: 0007G)	$35,098

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	991202	15	FRENCH VALLEY PKWY (FVP) - PHASE 1: DESIGN & CONSTRUCT FVP (I-15 - JEFFERSON), SB EXIT RAMP (1 LN), SB AUX LANE (FVP - WINCHESTER RD) & WIDEN WINCHESTER SB EXIT RAMP (1 TO 2 LNS)	$18,142
S	RIV010204	15	AT I-15/CALIFORNIA OAKS RD/KALMIA ST IC - RECONFIGURE RAMPS (CONSTRUCT NB/SB LOOP ON RAMPS, RELOCATE SB OFF RAMP), WIDEN CAL OAKS 4 TO 6 LNS FROM UC TO CAL OAKS PLAZA (EA: 0A490)	$37,697
S	RIV010206	15	AT I-15/RAILROAD CYN RD IC: RECONSTRUCT/WIDEN UC 2 TO 4 LNS (SUMMERHILL DR TO CASINO RD), RECONFIGURE RAMPS, ADD AUX LNS & NEW NB ENTRY + SB EXIT RAMPS (EA: 0A440K)	$45,000
S	RIV010207	15	IN CORONA AT I-15/ONTARIO AVE IC - WIDEN SB ON & NB OFF RAMPS FROM 2 TO 3 LANES AND WIDEN ONTARIO AVE FROM 4 TO 6 LANES FROM COMPTON AVE TO STATE STREET	$3,429
S	RIV010208	15	NEAR CORONA AT I-15/CAJALCO RD IC - RECONSTRUCT/REALIGN & WIDEN CAJALCO RD FROM 2 TO 6 LANES FROM TEMESCAL CYN RD TO BEDFORD CYN RD & RECONSTRUCT/WIDEN RAMPS 1 TO 2 LANES.	$55,000
S	RIV011233	15	AT I-15/LIMONITE AVE IC - WIDEN IC 4 TO 6 LNS, RAMPS 1 TO 2 LNS, & WIDEN LIMONITE AVE FROM HAMNER TO WINEVILLE 4 TO 6 LNS (APPROX 1 MI) (EA: 0E150K)	$20,171
S	RIV031215	15	FRENCH VALLEY PKWY IC/ARTERIAL PHASES: CONSTRUCT 6 LN IC (JEFFERSON TO YNEZ) & RAMPS, NB/SB AUX LN, CD LNS (3 LNS NB & SB) & MODIFY WINCHESTER RD IC (I-215 PM: 8.2-9.5) (EA:43270)	$122,704
S	RIV050531	15	ON I-15 S/O TEMECULA - CONSTRUCT NEW EASTERN BYPASS/I-15 IC (4 LANES, 2 LANES IN EACH DIRECTION) & RAMPS (1 LANE) WITH EASTERLY 4 LANE ARTERIAL CONNECTION APPPROXIMATELY 2 MILES AT NEW EASTERN BYPASS ARTERIAL/IC BETWEEN PM 0.0 TO 2.0 ON I-15	$45,920
S	RIV050532	15	ON I-15 NEAR THE CITY OF NORCO - CONSTRUCT NEW SCHLEISMAN RD IC (6 LANES) AND RAMPS (1 LANE) (EA: 0E140K) (PA&ED/PRE-DESIGN)	$27,000
S	RIV060105	15	AT I-15/EL CERRITO RD IC - RECONSTRUCT/MODIFY RAMPS: WIDEN SB ENTRY AND NB EXIT RAMPS 1 TO 2 LANES, INSTALL NEW RAMP METER AND TRAFFIC SIGNALS	$2,002
S	RIV060109	15	I-15/SR74 (CENTRAL AVE) JCT IC: MODIFY/WIDEN 2 TO 6 LNS (COLLIER-CAMBERN) & 2 LEFT-TURN LNS, RAMPS 1 TO 2 LNS, ADD NB/SB EXIT LOOP RAMPS, NB/SB AUX LNS, & SIGNALS (EA: 0F310K)	$85,000
S	RIV061163	15	ON I-15 (R0.0 TO R41.8) & I-215 (R8.4 TO R38.5): INSTALL APPROX. 75 VEHICLE DETECTION STATIONS FOR IMPROVED INCIDENT RESPONSE, TRAFFIC DATA COLLECTION, & TRAVELER INFO (EA: 0J710G)	$2,300
S	RIV62031	15	I-15/SR79 SO. IC: REMOVE SB EXIT RAMP, ADD NEW SB EXIT LOOP RAMP, REALIGN SB EXIT RAMP (2 LNS) W/AUX LN. WIDEN SB ENTRY 1 TO 3, NB EXIT 1 TO 4, NB ENTRY 1 TO 3 & RECON SR79S.	$30,634
S	RIV62034	15	I-15/CLINTON KEITH RD IC: RECONSTRUCT/WIDEN OC 2 TO 6 LNS & RAMPS 1 & 2 LNS TO 3 & 4 LNS, ADD NB/SB AUX LNS PRIOR TO & AFTER EXIT/ENTRY RAMPS & LEFT-TURN LNS (EA: 0F580K)	$21,816
S	32300	60	AT SR60/NASON ST IC - MODIFY/RECONSTRUCT IC & NASON ST FROM ELDER TO FIR: REALIGN EB, WB EXIT PLUS EB & WB ENTRY RAMPS, ADD EB & WB RAMP HOV LNS, & ADD AUX LANES (EA: 32300)	$18,544

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	RIV041052	60	SR60/NASON ST IC + MORENO BEACH DR IC: WIDEN NASON OC 2 TO 6 LNS; MODIFY MORENO BEACH DR IC - WIDEN 2 TO 6 LNS, REALIGN/WIDEN RAMPS, ADD WB ON RAMP, ADD EB/WB AUX LN (EA: 32301K)	$60,200
S	RIV050535	60	ON SR60 APPROXIMATELY 1 MILE W/O JCT SR60/I-10 - CONSTRUCT NEW POTRERO BLVD IC (4 LANES) & RAMPS (1 LANE) AND 4 LANE CONNECTING ROAD FROM SR60 TO SR79 (EA: 34140) (PA&ED/PRE-DESIGN)	$106,512
S	RIV990701	60	SR60/VALLEY WAY IC - RELOCATE OFF-RAMP (1 TO 2 LANES) AND ADD NEW EB ON-RAMP (2 LANES), SIGNALS & WIDEN VALLEY WAY/ MISSION BLVD INTERSECTION.	$9,100
S	RIV050517	74	ON SR74 IN/NEAR HEMET FROM CALVERT AVE TO CALIFORNIA AVE: CURVE REALIGNMENT & PAVEMENT WIDENING (NON CAPACITY) INCLUDING INTERSECTION/LEFT TURN IMPROVEMENTS (EA 0C6900)	$11,161
S	RIV990709	74	IN THE CITY OF PERRIS - INSTALL NEW SIGNAL AT 4TH ST (SR74) AND REDLANDS AVE	$295
S	46460	79	IN WESTERN RIVERSIDE COUNTY ON STATE ROUTE 79 - WIDEN FROM 2 TO 4 LANES FROM THOMPSON RD TO DOMENIGONI PKWY	$36,407
S	RIV62024	79	SR-79 BETWEEN 2.0 KILOMETERS SOUTH OF DOMENIGONI PKWY TO GILMAN SPRINGS ROAD - ONSTRUCT 4-LANE ARTERIAL ON NEW ALIGNMENT (KP LIMITS 25.580 TO 52.304) (EA: 49400) (PA&ED/PRE-DESIGN COMPLETION 2008)	$1,568,225
S	RIV62029	79	AT HWY 79 SO AND LA PAZ ST: ACQUIRE LAND, DESIGN AND CONSTRUCT PARK-AND-RIDE LOT - 250 SPACES (FY 05 HR4818 EAR-MARK)	$1,392
S	RIV060101	86	AT SR86S/AIRPORT BLVD (AVE 56): CONSTRUCT NEW IC (3 LANE OC: 1 LANE EACH DIR + 1 MEDIAN LANE) AND RAMPS (1 LANE) FROM APPROX DESERT CACTUS DR TO 57TH AVE (EA: 47860, PPNO: 0078L)	$49,601
S	RIV061159	86	AT SR86S/AVE 50: CONSTRUCT 4 LN IC & RAMPS (1 LN), 4 LN BRIDGE OVER COACHELLA STORM DRAIN, NB & SB SR86S AUX LANES, REALIGN AVE 50, TYLER ST (EA: 0C970) (PA&ED ONLY)	$25,390
S	45661	91	NEAR CORONA ON RTE 91 FROM GREEN RIVER DR IC TO RTE 71/91 SEPARATION - RECONSTRUCT/REPLACE IC INCLUDING OC WIDEN-ING 3 TO 6 LANES AND WB RAMPS WIDENING (PPNO:0076B)	$24,511
S	RIV0084	91	SR91/VAN BUREN BLVD IC - RECONSTRUCT/WIDEN RAMPS 2 TO 3 LNS (INCLDS WB HOV LANE), WIDEN OC 4 TO 6 LNS (ANDREW TO RUDICILL) & ADD NEW EB ONRAMP (2 LNS) AT INDIANA AVE (EA: 20320)	$44,882
S	RIV010212	91	ON SR91 - ADAMS TO 60/215 IC: ADD HOV LNS, AUX LNS (MADISON-CENTRAL), BRIDGE WIDENING & REPLACEMENTS, EB/WB BRAIDED RAMPS, IC MOD/RECONSTRUCT + SOUND/RETAINING WALLS	$286,953
S	RIV010225	91	AT LINCOLN AVE/SR91 - WIDEN RAMPS (ADD 1 LANE TO EB ENTRY AND 2 LANES TO EB & WB EXIT) PLUS CHANNELIZATION/SIGNAL IMPROVEMENTS TO LINCOLN AVE FROM PARKRIDGE AVE TO ONTARIO AVE	$2,874
S	RIV050102	91	GREEN RIVER RD LANDSCAPE ENHANCEMENTS: NEAR CORONA FROM 1.0 KM E/O ORANGE/RIVERSIDE CNTY LINE TO 1.35 KM W/O SR 71/91 SEP - INSTALL LANDSCAPE ENHANCEMENTS (EA: 45662, PPNO: 0072G)	$1,200

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	RIV060106	91	AT SR91/SERFAS CLUB DR IC: WIDEN UC ARTERIAL (BTWN WARDLOW & FRONTAGE) 5 TO 6 LNS (FOR 2ND LEFT-TURN LN), ADD SB RIGHT-TURN LN TO WB ENTRY RAMP, & WIDEN EB EXIT RAMP 2 TO 3 LNS	$3,198
S	RIV060107	91	AT SR91/MAIN ST IC: WIDEN WB ENTRY RAMP AT INTERSECTION 2 TO 3 LNS; WIDEN SB N. MAIN ST 4 TO 6 LNS (PARKRIDGE TO N. CITY LIMITS) PLUS CHANNELIZATION, MEDIAN, & SIDEWALKS	$657
S	RIV060118	91	ON SR91 THROUGH CORONA: RESTRIPE EASTBOUND INSIDE SHOULDER TO PROVIDE AN AUXILIARY LANE FROM JCT SR91/71 TO SER-FAS CLUB DR (EA: 0H770)	$1,500
S	RIV070308	91	AT SR91/71 JCT: REPLACE EB 91 TO NB 71 CONNECTOR W/ DIRECT FLY-OVER CONNECTOR, CONSTRUCT EB CD LNS (GREEN RIVER TO SERFAS CLUB ICS), CONSTRUCT WB AUX LN (SERFAS TO JCT 71) (0F162)	$139,049
S	RIV031222	95	IN BLYTHE ON U.S. 95/INTAKE BLVD (LOCAL ARTERIAL PORTION) - WIDEN FROM 2 TO 4 LANES FROM HOBSON WAY TO 14TH ST & INSTALL SIGNAL AT HOBSON WAY/INTAKE BLVD (EA: BLYTHE, PPNO: 0096E)	$1,978
S	RIV031210	111	IN CATHEDRAL CITY ON SR111/EAST PALM CYN DR - WIDEN E. PALM CYN DR FROM 4 TO 6 LNS (AT WEST CATHEDRAL CYN CHANNEL BRIDGE) & CONSTRUCT MISSING GAP SIDEWALKS NEAR EAST & WEST CL	$4,300
S	RIV031211	111	IN INDIO ON SR111 - WIDEN SR111 FROM 4 TO 6 LANES, INSTALL SIGNALS, CONSTRUCT/ LANDSCAPE MEDIAN, AND STORM DRAIN IMPROVEMENTS FROM MADISON ST TO JEFFERSON ST	$3,600
S	RIV031214	111	IN LA QUINTA ON SR111 FROM WASHINGTON ST TO WEST CL - CHANNELIZATION/SAFETY IMPROVEMENTS: INSTALL CURB & GUTTER, SIDEWALK, HANDICAP RAMPS, RAISED CURB MEDIAN, & ROCK MITIGATION	$1,980
S	0121D	215	ON I-215/SR91/SR60, RIV I215 COR IMPROV PROJ - FROM 60/91/215 JCT TO 60/215 SPLIT - WIDEN 6 TO 8 LNS, INCLUDING MAINLINE/ IC IMPROVS, ADD HOV, AUX, & SB TRUCK CLIMB LN (EA: 3348U1)	$463,286
S	RIV010203	215	AT I-215/CLINTON KEITH RD IC - CONSTRUCT PARTIAL CLOVERLEAF: WIDEN OC 2 TO 6 LNS, RECONSTRUCT RAMPS (WIDENING TO EXISTING NB/SB DIAMOND RAMPS) & CONSTRUCT NEW NB/SB LOOP ON RAMPS	$35,668
S	RIV011232	215	AT I-215/SCOTT ROAD IC NEAR MURRIETA - RECONSTRUCT/WIDEN IC FROM 2 TO 6 LANES AND RAMPS FROM 1 TO 2 LANES (EA: 0A020)	$72,600
S	RIV030642	215	AB3090 REIMBURSEMENT PROJECT: EA - 33489G, PPNO - 0121P (FOR GARVEE 0121D - EL CERRITO DRIVE TO JCT 60/91/215 IC - CONSTRUCT IC, ADD 2 HOV LANES & SB TRUCK CLIMBING LANE)	$31,324
S	RIV031219	215	CETAP - WINCHESTER TO TEMECULA CORRIDOR: DEVELOP TIER II ENVIRONMENTAL DOC (PAED ONLY) ALONG I-15: SR79 SO TO JCT I-15/I-215, I-215: JCT I-15 TO NEWPORT RD, & FRENCH VALLEY PKWY	$1,265,230
S	RIV050501	215	I-215 AT SR74/G ST IC: REPLACE 2 LN OC W/ 4 LN OC & WIDEN REDLANDS AVE (4TH TO SAN JACINTO), WIDEN/REALIGN RAMPS, MODIFY 4TH ST (G TO EASTERLY TERMINUS) & RECONSTRUCT INTERSECTIONS	$35,930
S	RIV050533	215	ON I-215 AT CACTUS AVE IC NEAR MORENO VALLEY - WIDEN UNDER CROSSING ARTERIAL 4 TO 6 LANES BETWEEN RAMPS & MODIFY RAMPS (EA: 0E760G) (PA&ED/PRE-DESIGN)	$33,000

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	RIV050534	215	I-215/NEWPORT RD IC: RECON/WIDEN 4 TO 6 LNS (HAUN-ANTELOPE), ADD NB & SB 2 LN LOOP ON RAMPS, RECON NB+SB ON/OFF RAMPS, WIDEN SB ON 2 TO 3 LNS, ADD HOV LN TO NB & SB ON (EA: 0J440)	$45,000
S	RIV050555	215	ON I-215 (N/O EUCALYPTUS AVE TO S/O BOX SPRINGS RD) & SR60 (DAY ST TO SR60/I-215 JCT): RECONSTRUCT JCT TO PROVIDE 2 HOV DIRECT CONNECTOR LNS (SR60 PM: 12.21 TO 13.31) AND MINOR WIDENING TO BOX SPRINGS RD FROM 2 TO 4 LNS (APPROX 350 METERS) BTWN MORTON RD & BOX SPRINGS RD/FAIR ISLE IC (EA: 449311)	$37,250
S	RIV060104	215	IN MURRIETA ON I-215 AT LINNEL LANE: CONSTRUCT NEW 4 LANE (2 LANES EACH DIR) OC FROM MCELWAIN RD TO MEADOWLARK LN INCLUDING SIDEWALKS AND BIKELANES	$23,060
S	RIV060111	215	AT I-215/ETHANAC RD IC IN PERRIS: RECONSTRUCT/MODIFY IC FROM 2 TO 4 LANES, MODIFY/REALIGN RAMPS, ADD SIGNALS, PLUS SAFETY/CHANNELIZATION IMPROVEMENTS (PA&ED/PRE-DESIGN)	$5,000
S	RIV060120	215	I-215/VAN BUREN BLVD IC: RECON/WIDEN IC 3 TO 7 LNS (4 WB, 3 EB) & RAMPS 1 TO 2 & 1 TO 3 LNS), ADD NB LOOP ENTRY RAMP (2 LNS), ADD NB/SB AUX LNS & RT+LFT-TRN LNS (EA 0E520K)	$97,550
S	RIV070305	215	ON I-215 IN SW RIV CO FROM MURRIETA HOT SPRINGS RD TO SCOTT RD: CONSTRUCT A THIRD MIXED FLOW LANE IN EACH DIRECTION (WIDENS I-215 FROM 4 TO 6 MF LANES - 3 IN EACH DIRECTION) (EA: 0F161)	$78,756
S	RIV070309	215	ON I-215 IN SW RIV CO FROM SCOTT RD TO NUEVO RD IC: CONSTRUCT A THIRD MIXED FLOW LANE IN EACH DIRECTION (WIDENS I-215 FROM 4 TO 6 LANES - 3 IN EACH DIRECTION) (EA: 0F162) (PA&ED)	$236,469
S	RIV62040	215	ON I-215 AT LOS ALAMOS RD IC: RECONSTRUCT/WIDEN IC 2 TO 6 LNS (3 LNS EACH DIR) FROM HANCOCK AVE TO WHITEWOOD RD, WIDEN RAMPS (1 TO 2 & 1 TO 3 LNS), (EA: 432801)	$12,225
L	991203	0	EXTEND OVERLAND DRIVE (4 LANES) FROM COMMERCE CENTER DRIVE TO AVENIDA ALVARADO/DIAZ ROAD INTERSECTION INCLUDING CONSTRUCTION OF 4 LANE BRIDGE OVER MURRIETA CREEK	$10,711
L	991206	0	BUTTERFIELD STAGE RD EXTENSIONS: EXTEND MURRIETA HOT SPRINGS RD (4 LNS) BSR TO SERAPHINA RD, BSR (4 LNS) RANCHO CAL RD TO MHS RD, & NICHOLAS RD (4 LNS) BSR TO CALLE GIRASOL	$39,900
L	RIV000103	0	IN THE CITY OF PALM SPRINGS - CONSTRUCT BELARDO RD BRIDGE AND MISSING GAP, PARKING LOT AND AMENITIES FOR INDIAN INTERPRETIVE CENTER AT TAHQUITZ CANYON	$5,500
L	RIV010205	0	IN RIVERSIDE COUNTY NEAR MURRIETA RECONSTRUCT AND WIDEN SCOTT ROAD FROM 2 TO 6 LANES BETWEEN I-215 AND SR79 (WINCHESTER ROAD)	$26,100
L	RIV010209	0	IN THE CITY OF CORONA - CONSTRUCT FOOTHILL PARKWAY WESTERLY EXTENSION 4 LANE ROAD FROM LINCOLN AVE TO PASEO GRANDE (APPROX 2.5 MILES)	$49,311
L	RIV010213	0	AT GENE AUTRY TRAIL RAILROAD BRIDGE, SOUTHSIDE OF I-10 AT SALVIA RD TO SOUTHSIDE OF RAILROAD BRIDGE AT WHITEWATER WASH, WIDEN FROM 2 TO 6 LANES	$6,133
L	RIV010221	0	ON MILES AV FROM COACHELLA VALLEY STORMWATER CHNL TO CLINTON CONSTRUCT 4-LN BRIDGE OVER CHANNEL/WIDEN RD 2 TO 4 LNS AND ON CLINTON FROM MILES AV TO FRED WARING, WIDEN 3 TO 4 LNS	$16,157

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	RIV010227	0	CORONA ADVANCED TRAFFIC MANAGEMENT SYSTEM (ATMS) - AND REGIONAL ITS INTEGRATION PARTS 1 AND 2	$1,362
L	RIV011201	0	IN PALM DESERT/RANCHO MIRAGE - WIDEN MONTEREY AVE FROM 4 TO 6 LANES, INSTALL CURB/GUTTER & MEDIAN, AND UTLITY RELOCATION FROM DINAH SHORE DR TO GERALD FORD DR (APPROX 1 MILE)	$1,000
L	RIV011203	0	IN PALM SPRINGS - WIDEN INDIAN CANYON DRIVE FROM 2 TO 4 LANES AT GRADE (NO BRIDGE) FROM THE UPRR BRIDGE TO TRAMVIEW ROAD (APPROX 2 MILES)	$4,961
L	RIV011204	0	IN COACHELLA ON DILLON RD - CONSTRUCT 4 LANE GRADE SEPARATION OVER UPRR TRACKS AND INDIO/GRAPEFRUIT BLVD (HWY 111) (PUC#: B613.0)	$16,107
L	RIV011205	0	IN MORENO VALLEY/PERRIS - WIDEN PERRIS BLVD 2 TO 4 LANES FROM RAMONA EXPRESSWAY TO PERRIS VALLEY STORM DRAIN - LATERAL 'A' (APPROX. 2 MILES)	$5,226
L	RIV011208	0	IN RIVERSIDE - WIDEN VAN BUREN BLVD FROM 4 TO 6 LANES FROM JACKSON STREET TO THE SANTA ANA RIVER AND ADD DEDICATED RIGHT-TURN LANES AT MAJOR INTERSECTIONS	$15,104
L	RIV011209	0	IN COACHELLA - WIDEN DILLON ROAD FROM 2 TO 4 LANES FROM HWY 86 TO I-10, CONSTRUCT MEDIAN CURB, AND INSTALL/INTERCONNECT 2 SIGNALS (APPROX. .75 MILE)	$3,200
L	RIV011210	0	IN MORENO VALLEY/COUNTY - REALIGN RECHE VISTA DR (PERRIS BLVD TO 200' N/O CITY LIMITS - APPROX 2,000') & INSTALL SIGNAL (PERRIS/HEACOCK/RECHE VISTA DR)	$7,040
L	RIV011212	0	IN CATHEDRAL CITY ON RAMON RD - DATE PALM DR TO E. CITY LIMITS (1,500' E/O DA VALL) - WIDEN 4 TO 6 LNS & PAVEMENT REHAB, SIDEWALKS, SIGNAL INTERCONNECT, RETAINING WALLS, DRAIN IMP.	$1,847
L	RIV011236	0	IN RIV COUNTY & MURRIETA - EXTEND/CONSTRUCT CLINTON KEITH ROAD (6 LANES TOTAL - APPROX 3.4 MILES) WITH 2 BRIDGES FROM ANTELOPE ROAD TO WINCHESTER ROAD (SR79)	$62,400
L	RIV011240	0	IN CORONA ON MCKINLEY ST - CONSTRUCT 6 LANE (3 LANES EACH DIR) GRADE SEPARATION AT BNSF RAILROAD (PA&ED AND PRE-DESIGN ONLY)	$109,200
L	RIV011241	0	IN CORONA ON AUTO CENTER DRIVE - CONSTRUCT 4 LANE OVERCROSSING (GRADE SEPARATION) OVER BNSF RAILROAD (PA&ED AND PRE-DESIGN ONLY)	$29,720
L	RIV031202	0	IN THE CITY OF BANNING - CONSTRUCT 4 LANE (2 LANES EACH DIR.) RAMSEY STREET EXTENSION FROM HATHAWAY STREET TO FIELDS ROAD (APPROX 2.2 MILES) (DEMO ID#: 213, APPN CODE: 4260)	$10,562
L	RIV031203	0	MAGNOLIA AVE CORRIDOR (RIMPAU AVE TO E. 6TH ST): WIDEN SECTIONS 2 TO 6 & 4 TO 6 LNS, RECON/CHANNELIZATION, SAFETY & SIGNAL INSTALL/MODS (THIS PHASE: MAGNOLIA AT RIMPAU - 4 TO 6)	$1,835
L	RIV031204	0	IN MURRIETA - CONSTRUCT NEW 2 LANE GUAVA ST. BRIDGE (400') OVER MURRIETA CREEK FROM WASHINGTON AVE TO ADAMS AVE W/ SHOULDERS & ALL REQUIRED APPROACHES (BR#: 56C0162)	$6,418
L	RIV031205	0	IN THE CITY OF PALM SPRINGS - WIDEN RAMON ROAD 4 TO 6 LANES FROM EL CIELO TO SUNRISE WAY (APPROX 1 MILE)	$4,750

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	RIV031206	0	ON S. PALM CANYON DR OVER ARENAS CYN SOUTH DRAINAGE CHANNEL: REPLACE EXISTING 2 LANE LOW-WATER CROSSING W/ A NEW 4 LANE BRIDGE & DRAINAGE IMPROVEMENTS (HBRR#: 00L0027)	$4,827
L	RIV031216	0	IN SOUTHWEST RIVERSIDE COUNTY - CITY OF TEMECULA PAVEMENT REHAB/RECON PROJECTS LUMP SUM (NON CAPACITY ENHANCING) (CONSISTENT W/ 40 CFR PART 93.126,127,128 EXEMPT TABLES 2 & 3)	$3,370
L	RIV031218	0	CETAP - MID COUNTY PARKWAY CORRIDOR: CONSTRUCT A 4-8 LANE LIMITED ACCESS PARKWAY FROM CORONA (SLIGHTLY WEST OF I-15) TO SAN JACINTO (TO SR79) AND CONSTRUCT LOCAL INTERCHANGES IN THE CORRIDOR AT 15 LOCATIONS	$6,666,034
L	RIV031221	0	IN BLYTHE - REHABILITATE/RECONSTRUCT LOVEKIN BLVD FROM SOUTH OF I-10 RAMPS TO 14TH STREET INCLUDING CURB, GUTTER, AND SIDEWALK IMPROVEMENTS	$953
L	RIV031223	0	IN RIVERSIDE COUNTY LUMP SUM FOR REHABILITATION AND RECONSTRUCTION PROJECTS (NON CAPACITY ENHANCING PROJECTS) (CONSISTENT W/ 40 CFR PART 93.126, 127, 128, EXEMPT TABLE 2 &3)	$25,801
L	RIV031226	0	IN AND NEAR BLYTHE ON DE FRAIN BLVD - RECONSTRUCT/REHAB & CHANNELIZATION IMPROVEMENTS FROM HOBSON WAY TO 6TH AVE INCLUDING TURNING POCKETS & SHOULDER WIDENING	$910
L	RIV041043	0	WIDEN RECHE VISTA DR 2 TO 4 LNS (HEACOCK ST/PERRIS BLVD-RECHE CYN RD); WIDEN RECHE CYN RD 2 TO 4 LNS (RECHE VISTA-BARTON/HUNTS) PLUS REALIGN, SIGNALS, MEDIANS	$75,764
L	RIV041044	0	IN MORENO VALLEY: WIDEN PERRIS BLVD 4 TO 6 LNS (RAMONA EXPWY TO PVSD-LAT A) & 2 TO 6 LNS (PVSD-LAT A TO CACTUS AVE) INCLUDING CURB, GUTTER, SIDEWALKS, SIGNALS, & MEDIANS	$14,669
L	RIV041045	0	WIDEN PERRIS BLVD FROM 2 TO 6 LANES FROM IRONWOOD AVE TO MANZANITA AVE INCLUDING CURB, GUTTER, SIDEWALKS, SIGNAL MODS, STREET LIGHTS & MEDIANS IMPROVEMENTS	$10,600
L	RIV041047	0	THROUGHOUT RIVERSIDE COUNTY - LUMP SUM TRANSPORTATION ENHANCEMENT (TE) PROJECTS	$21,662
L	RIV050101	0	AB 3090 REIMBURSEMENT PROJECT: EA 08-RVCOT, PPNO 1109 (FOR PLANNING, PROGRAMMING, & MONITORING - RIV62047, EA 412374, PPNO 9803)	$175
L	RIV050201	0	HBRR LOCAL BRIDGE LUMP SUM PROGRAM FOR 2004/2005 (PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126,127,128, EXEMPT TABLES 2 & 3)	$67,114
L	RIV050301	0	CETAP - RIVERSIDE CNTY TO ORANGE CNTY CORRIDOR: FOR PA&ED & PRE-DESIGN WORK IN SUPPORT OF ENVIRONMENTAL DOCUMENT DEVELOPMENT (EARMARKS: FY05 HR4818 + SAFETEA LU #122+363)	$34,517
L	RIV050304	0	REHAB/RECON 100+ CITY BLOCKS OF STREETS (1ST, 2ND, 3RD, & 8TH STREETS PLUS CACTUS DR) INCLUDING CURB/GUTTERS, SPLASH APRONS, ADA RAMPS, SIDEWALKS, STORM DRAINS, ETC. (FY 04 APP)	$2,030
L	RIV050502	0	IN THE CITY OF RIVERSIDE - GRADE SEPARATION IMPROVEMENT PLANNING ACTIVITIES FOR FIVE RAILROAD GRADE SEPARATIONS (PA&ED/PRE-DESIGN) (HR4818 FY 05+SAFETEA LU EARMARKS)	$992

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	RIV050503	0	CVAG PM-10 PROGRAM PHASE 5: IN ITHE CITY OF INDIO - PAVE EXISTING CITY OWNED DIRT PARKING LOT AT NORTHWEST CORNER OF DR. CARREON BLVD AND BRISTOL ST	$304
L	RIV050504	0	CVAG PM-10 PROGRAM PHASE 5: IN THE CITY OF INDIO - PAVE EXISTING CITY OWNED DIRT PARKING LOT AT SOUTHWEST CORNER OF MILES AVE AND KING ST	$175
L	RIV050508	0	CVAG PM-10 PROGRAM PHASE 5 WINDBREAKS: INSTALL NEW WIND FENCES IN CATHEDRAL CITY NEAR RAMON RD FROM NEUMA DR TO DA VALL DR & AT NW CORNER OF DATE PALM DR & VISTA CHINO	$112
L	RIV050509	0	CVAG PM-10 PROGRAM PHASE 5 WINDBREAKS: INSTALL NEW WIND FENCES IN CATHEDRAL CITY NEAR DATE PALM DR FROM I-10 TO VARNER RD & NEAR VARNER RD FROM DATE PALM DR TO WEST CITY LIMITS	$133
L	RIV060102	0	IN CALIMESA - WIDEN COUNTY LINE RD 1 TO 2 LNS (I-10 TO CALIMESA BLVD), ADD EB DEDICATED RIGHT-TURN LN, WIDEN SB CALIMESA BLVD 2 TO 3 LNS (APPROX 150' SOUTH FROM COUNTY LINE RD)	$2,414
L	RIV060108	0	IN CORONA ON N. MAIN ST: ADD NB DEDICATED RIGHT-TURN LANE (APPROX 300') FROM SR91 EXIT RAMP TO GRAND BLVD, SIGNAL MODS & CONSTRUCT RETAINING WALL AT PARK-N-RIDE LOT	$3,702
L	RIV060110	0	IN PALM SPRINGS: WIDEN S. PALM CANYON DR FROM 2 TO 4 LANES FROM MURRAY CANYON RD TO BOGERT TR (BRIDGE PORTION OVER ARENAS CYN CHANNEL IN RIV031206)	$1,000
L	RIV060113	0	CONSTRUCT NEW 4 LANE BRIDGE OVER MURRIETA CREEK (PART OF WESTERN BYPASS CORRIDOR) INCLUDING APPROACHES, CURB & GUTTER, SIDEWALKS, & STORM DRAIN FACILITIES	$8,092
L	RIV060114	0	IN SOUTHWEST TEMECULA: DESIGN AND CONSTRUCT 4 LANE WESTERN BYPASS CORRIDOR (PHASE 1) FROM SR79 SOUTH TO RANCHO CALIFORNIA RD	$13,358
L	RIV060119	0	RIVERSIDE COUNTY INDIAN RESERVATION ROADS (IRR) FY 04/05-06/07 IMPROVEMENT PROGRAM LUMP SUM - FEDERAL LANDS HIGHWAY PROGRAM (23 USC 204)	$1,704
L	RIV060121	0	ON VAN BUREN BLVD NEAR MARCH AIR RESERVE BASE: WIDEN FROM 4 TO 6 LANES FROM APPROXIMATELY 0.5 MILES WEST OF I-215 TO BARTON ST	$6,700
L	RIV060122	0	IN MORENO VALLEY ON HEACOCK ST OVER PERRIS VALLEY STORM DRAIN (APPROX 2.7 MILES N/O RAMONA EXPWY): REPLACE EXISTING 2 LANE BRIDGE WITH A 4 LANE BRIDGE (BRIDGE #: 56C0233)	$3,392
L	RIV060123	0	ON CLAY ST APPROX 0.5 MILES E/O VAN BUREN BLVD AND N/O THE SANTA ANA RIVER: CONSTRUCT CLAY ST UNDERCROSSING UNDER THE UPRR (PA&ED/PRE-DESIGN ONLY)	$37,000
L	RIV060124	0	IN BANNING ON SUNSET AVE S/O I-10 IC: CONSTRUCT NEW 4 LANE UNDER CROSSING GRADE SEPARATION AT UPRR AND MINOR WIDENING 2 TO 6 LANES S/O OF UPRR TO LINCOLN ST	$30,500
L	RIV061101	0	CALIMESA SCHOOL PEDESTRIAN WALKWAY SEGMENT 1: ON 3RD ST FROM COUNTY LINE RD TO AVE L (SIDEWALKS, HANDICAP RAMPS AT CORNERS, UNDERGROUNDING UTILITIES, BOX CULVERT WIDENING)	$1,135
L	RIV061160	0	ESSENTIAL ROAD IMPROVEMENTS - PHASE II: CITY SECTION 31 INCLUDING PAVEMENT REHAB, SIDEWALKS, CURB/GUTTERS, CROSS GUTTERS, ADA RAMPS & DRAINAGE IMPROVEMENTS (SAFETEA LU #270-2489)	$4,631

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	RIV061161	0	ESSENTIAL ROAD IMPROVEMENTS-PHASE III: CITY SECTION 31 INCLUDING PAVEMENT REHAB, SIDEWALKS, CURB/GUTTERS, CROSS GUTTERS, ADA RAMPS & DRAINAGE IMPROVE. (FY 06 APP., SEC 112 #CA763)	$1,490
L	RIV061162	0	AT DOWNTOWN RIVERSIDE METROLINK STATION FOR UCR (CE-CERT): IMPLEMENT UCR INTELLISHARE SYSTEM (INTELLIGENT SHARED-USE VEHICLE SYSTEM) AT 2 DESIGNATED PARKING SPACES	$100
L	RIV52000	0	IN RIVERSIDE CNTY LUMP SUM HWY OPERATION IMPROVEMENT PROJ. -INTERSECTION SIGNALIZATON @ INDIVIDUAL LOC (TEA21) (PROJECTS CONSISTENT W/ 40 CFR PART 93.126,127,128,EXEMPT TABLES 2&3	$219
L	RIV52001	0	IN RIVERSIDE CNTY LUMP SUM - REHABILITATION & RECONSTRUCTION PROJECTS (PROJECTS CONSISTENT W/ 40 CFR PART 93.126,127,128, EXEMPT TABLES 2 & 3.	$14,100
L	RIV62000	0	IN PALM SPRINGS ON GENE AUTRY TRAIL - WIDEN 2 TO 6 LANES FROM VISTA CHINO TO VIA ESCUELA & 2 TO 4 LANES FROM VIA ESCUELA TO THE SOUTH SIDE OF UP RAILROAD BRIDGE	$4,374
L	RIV62015	0	IN NORTHWESTERN RIVERSIDE COUNTY AT RIVER ROAD BRIDGE OVER SANTA ANA RIVER (0.27 MILE N/O BLUFF ST) - REPLACE EXISTING 2 LANE BRIDGE WITH A 4 LANE BRIDGE (HBRR#: 56C0017)	$39,737
L	RIV62047	0	RESERVE FOR SB45 PLANNING (UP TO 2%) (PPM - PLANNING PROGRAMMING AND MONITORING) (EA: 412374, PPNO: 9803)	$3,634
L	RIV990703	0	IN RIVERSIDE AT JURUPA AVE AND UP RR - CONSTRUCT UNDERPASS AND CLOSE DOWN MOUNTAIN VIEW AVE AT UPRR TRACKS	$24,048
L	RIV990727	0	IN PALM SPRINGS: WIDEN INDIAN CANYON DR 2 TO 6 LANES (INCLUDING UPRR BRIDGE REPLACEMENT/WIDENING) FROM UPRR BRIDGE TO GARNET RD AT I-10 (HBRR#: 56C0025)	$5,453
L	RIV991210	0	ON PECHANGA PKWY FROM SR79 TO PECHANGA ROAD - WIDEN FROM 2 TO 6 LANES & INCLUDE CURB, GUTTER, SIDEWALK, SOUND WALL & STORM DRAIN FACILITY IMPROVEMENTS	$29,845
T	RIV010502	0	IN COACHELLA VALLEY, PROPERTY ACQUISITION OF APPROXIMATELY 2.27 ACRES FOR BUS PARKING/MAINTENANCE FACILITY EXPANSION AND ALTERNATE FUELS INFRASTRUCTURE EXPANSION	$411
T	RIV010514	0	SCRRA REHABILITATION AND RENOVATION OF TRACK AND ROLLING STOCK SIGNAL STRUCTURE (RCTC FY 03 PORTION TO SCRRA PROJ-ECT) (FY 02/03 5307) (UZA: RIV-SAN)	$995
T	RIV011211	0	IN CORONA AT N. MAIN ST/E. GRAND BLVD - CONSTRUCT NEW 1,000 SPACE PARKING STRUCTURE AT NEW CORONA N. MAIN ST. METROLINK STATION (EA: CORSTN, PPNO: 0079D)	$41,035
T	RIV011242	0	PURCHASE EXPANSION ROLLING STOCK (2 CAB CARS AND 3 LOCOMOTIVES) FOR METROLINK IEOC AND RIVERSIDE/FULLERTON/LA LINES (EA: RIVFUL, PPNO: 0079E)	$19,693
T	RIV020902	0	IN WEST RIV CO FOR EXCEED, A DIVISION OF VALLEY RESOURCE CENTER - PURCHASE 1 EXPANSION 20' MODIFIED VAN, 1 EXPANSION 22' MEDIUM BUS, AND 2 RADIOS - SECTION 5310 FY 02/03 CYCLE	$109
T	RIV030633	0	SCRRA REHABILITATION AND RENOVATION OF TRACK AND ROLLING STOCK SIGNAL STRUCTURE (RCTC FY 04 PORTION TO SCRRA PROJ-ECT) (FY 03/04 5307) (UZA: RIV-SAN)	$796
T	RIV030902	0	IN WESTERN RIVERSIDE COUNTY FOR EXCEED, A DIVISION OF VALLEY RESOURCE CENTER - PURCHASE 2 EXPANSION SMALL BUSES AND 1 EXPANSION MINIVAN (5310 FY 03/04 CYCLE)	$182

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	RIV030903	0	IN WEST RIV COUNTY FOR EXCEED, A DIVISION OF VALLEY RESOURCE CENTER - PURCHASE 1 REPLACEMENT MEDIUM BUS, 2 REPLACEMENT SMALL BUSES, AND 2 REPLACEMENT MINIVANS (5310 FY 03/04 CYCLE)	$282
T	RIV030905	0	IN THE COACHELLA VALLEY AREA FOR DESERT SAMARITANS FOR THE ELDERLY - PURCHASE 2 EXPANSION MODIFIED VANS (5310 FY 03/04 CYCLE)	$128
T	RIV031207	0	IN WESTERN RIVERSIDE COUNTY IN THE CITY OF CORONA - CONSTRUCT NEW CORONA TRANSIT CENTER AT 31 EAST GRAND BLVD (5309C FY 03+04+06 (E-2006-BUSP-080) EARMARKS)	$3,383
T	RIV041004	0	FOR RIV SPECIAL SERVICES- PURCHASE 6 REPLACEMENT ALT-FUEL MEDIUM SIZED (APPROX 12 PASS) DIAL-A-RIDE PARATRANSIT VEHICLES W/ LIFTS, TIEDOWNS, RADIOS & VIDEO CAMERAS (FY 05 5307)	$450
T	RIV041005	0	IN RIVERSIDE FOR RIVERSIDE SPECIAL SERVICES - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 05 5307)	$100
T	RIV041006	0	FOR RIVERSIDE SPECIAL SERVICES - PURCHASE SCHEDULING/DISPATCHING SOFTWARE, COMPUTERS, AND OFFICE EQUIPMENT(FY 05 5307)	$150
T	RIV041007	0	IN RIVERSIDE FOR RIVERSIDE SPECIAL SERVICES - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 06 5307)	$100
T	RIV041027	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 06 5307, UZA: RIV-SAN)	$4,127
T	RIV041029	0	IN THE CITY OF RIVERSIDE - CONSTRUCT NEW RIVERSIDE TRANSIT CENTER IN THE VICINTIY OF DOWNTOWN METROLINK STATION (5309C FY 03+04+06 (E-2006-BUSP-156) EARMARKS)	$7,076
T	RIV041042	0	IN THE COACHELLA VALLEY AREA FOR SUNLINE - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 06 5307, UZA: INDCCPS)	$1,000
T	RIV041048	0	IN COACHELLA VALLEY AREA FOR SUNLINE - PURCHASE 10 REPLACEMENT ALT-FUEL/CNG 40 FOOT (43 PASSENGER) BUSES W/ LIFTS, FAREBOXES, RADIOS, BICYCLE RACKS, & ACCESSORIES (FY 05 5307)	$2,481
T	RIV050302	0	IN THE COACHELLA VALLEY AREA FOR ANGEL VIEW CRIPPLED CHILDREN'S FOUNDATION, PURCHASE 1 EXPANSION MEDIUM BUS - SECTION 5310 FY 04/05 CYCLE	$76
T	RIV050303	0	IN WESTERN RIVERSIDE COUNTY FOR FRIENDS OF MORENO VALLEY SENIOR CENTER INC. - PURCHASE 1 REPLACEMENT MODIFIED VAN - SECTION 5310 FY 04/05 CYCLE	$65
T	RIV050516	0	IN CORONA - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 07 5307) (UZA: RIV-SAN)	$183
T	RIV050518	0	PURCHASE 6 REPLACEMENT ALT-FUEL MEDIUM-SIZED (APPROX 12 PASS) DIAL-A-RIDE PARATRANSIT VEHICLES W/ LIFTS, TIEDOWNS, FARE BOXES, RADIOS, VIDEO CAMERAS , & ACCESSORIES (FY 06 5307)	$462
T	RIV050519	0	FOR RIVERSIDE SPECIAL SERVICES - PURCHASE 1 LOW-FLOOR MINIVAN SUPPORT VEHICLE (FY 06 5307)	$72
T	RIV050520	0	AT EXISTING RIVERSIDE SPECIAL SERVICES FACILITIES - FACILITY IMPROVEMENTS TO INCLUDE BUS WASH AND OPERATIONS FACILITIES REHABILITATION (FY 06 5307)	$50

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	RIV050521	0	IN RIVERSIDE FOR RIVERSIDE SPECIAL SERVICES - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 07 5307) (UZA: RIV-SAN)	$100
T	RIV050522	0	PURCHASE 8 REPLACEMENT ALT-FUEL (CNG) (APPROX 12 PASS) DIAL-A-RIDE PARATRANSIT VEHICLES W/ LIFTS, TIEDOWNS, FAREBOX-ES, RADIOS, CAMERAS, & ACCESSORIES (FY 07 5307) (UZA: RIV-SAN)	$720
T	RIV050523	0	FOR RIV SS - PURCHASE REPLACEMENT OFFICE & MISC. EQUIPMENT (E.G. DESKS, CHAIRS, PHONES, RADIO EQUIP, FILE CABINETS, ETC.) FOR EXISTING ADMIN FACILITY (FY 07 5307) (UZA: RIV-SAN)	$50
T	RIV050524	0	FOR RIV SS - CONSTRUCT EXPANDED SERVICE BAY FOR VEHICLE MAINTENANCE AT EXISTING RIVERSIDE MAINT. FACILITY OPS AREA SUPPORTING EXISITNG VEHICLE FLEET (FY 07 5307) (UZA: RIV-SAN)	$1,000
T	RIV050525	0	RCTC SHARE TO SCRRA ELECTRONIC PASSENGER INFORMATION SYSTEM (EPIS) (FY 06 SRTP)	$161
T	RIV050526	0	RCTC SHARE OF OCTA'S FY 06 REHAB AND RENOVATION (FY 06 5307)	$1,384
T	RIV050528	0	RCTC LOCAL MATCHING SHARE TO SCRRA PROJECT TO PURCHASE 5 NEW TICKET VENDING MACHINES (1 TO DOWNTOWN RIVERSIDE STATION & 4 TO SANBAG STATIONS) (FY 06 SRTP)	$100
T	RIV050530	0	SCRAA REHABILITATION AND RENOVATION OF TRACK AND ROLLING STOCK SIGNAL STRUCTURE (RCTC'S FY 07 5307 PORTION TO SCRA PROJECT) (FY 07 5307) (UZA: RIV-SAN) (PARENT: LA963505)	$417
T	RIV050536	0	IN WESTERN RIVERSIDE COUNTY FOR RTA IN FY 05/06 - OPERATING ASSISTANCE: FIXED ROUTE AND DIAL-A-RIDE (FY 06 5307 - HEMET/ SAN SAN JACINTO UZA)	$34,947
T	RIV050537	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - CAPITALIZED COST OF CONTRACTING (PURCHASED TRANSPORTATION) (FY 06 5307, UZA'S: RIV-SAN + TEM/MURR)	$2,586
T	RIV050538	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - DEBT FINANCING (FY 05/06 PORTION) FOR 57 TRANSIT COACHES, 25 REPLACEMENT, 32 EXPANSION (FY 06 5307, UZA: RIV-SAN)	$2,064
T	RIV050539	0	PURCHASE NEW COMPUTER SERVERS & SOFTWARE UPGRADES (E.G. OPERATOR TIMEKEEPING, ELECTRONIC DOC MGMNT, WIRELESS CAMERA DATA TRANSFER, MOBIL VIEW III, ETC.) (FY 06 5307)	$719
T	RIV050540	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - BUS RAPID TRANSIT (BRT) AMENITIES (E.G.BUS SIGNAGE, ATIS KIOSKS, SHELTER MATERI-ALS, BRANDED SIGNAGE & AMENITIES, ETC.) (HR4818 FY 05 EARMARK)	$465
T	RIV050541	0	IN WESTERN RIVERSIDE COUNTY FOR RTA IN FY 06/07 - OPERATING ASSISTANCE: FIXED ROUTE & DIAL-A-RIDE (FY 07 5307 - HEMET/ SAN JACINTO UZA)	$41,122
T	RIV050542	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 07 5307, UZA: TEM/MURR)	$2,543
T	RIV050543	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - CAPITALIZED COST OF TIRE LEASE (FY 07 5307), (UZA: RIV-SAN)	$226
T	RIV050544	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - DEBT FINANCING (FY 06/07 PORTION) FOR 57 TRANSIT COACHES, 25 REPLACEMENT, 32 EXPANSION (FY 07 5307) (UZA: RIV-SAN)	$2,098

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	RIV050545	0	IN COACHELLA VALLEY FOR SUNLINE - FIXED ROUTE AND DIAL-A-RIDE OPERATING ASSISTANCE FOR FISCAL YEAR 2005/06	$16,930
T	RIV050546	0	IN COACHELLA VALLEY - PURCHASE 16 REPLACEMENT ALT-FUEL 40 FT (43 PASS) BUSES W/ LIFTS, BIKE RACKS, FAREBOXES, RADIOS & ACCESSORIES (FY 06 5307, UZA: INDCCPS) (HR4818 FY 05 EARMARK)	$6,506
T	RIV050547	0	PURCHASE TRANSIT ENHANCEMENT BUS STOP AMENITIES (E.G. BENCHES, TRASH CONTAINERS, KIOSK LEXANS, LEXAN SCHEDULES, ETC.) FOR VARIOUS BUS STOPS (FY 06 5307, UZA: INDCCPS) (TE)	$36
T	RIV050548	0	IN COACHELLA VALLEY FOR SUNLINE - PURCHASE 9 REPLACEMENT, ALT-FUEL, 12-15 PASSENGER, PARATRANSIT DIAL-A-RIDE VANS WITH ACCESSORIES (FY 06 5307, UZA: INDCCPS)	$508
T	RIV050549	0	IN COACHELLA VALLEY AREA FOR SUNLINE - FIXED ROUTE AND DIAL-A-RIDE OPERATING ASSISTANCE FOR FISCAL YEAR 2006/07	$17,550
T	RIV050550	0	IN THE COACHELLA VALLEY AREA FOR SUNLINE - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 07 5307) (UZA: INDCCPS)	$1,541
T	RIV050551	0	IN COACHELLA VALLEY - PURCHASE 13 REPLACEMENT ALT-FUEL 40 FT (43 PASS) BUSES W/ LIFTS, BIKE RACKS, FARE BOXES, RADIOS & ACCESSORIES (FY 07 5307, UZA: INDCCPS)	$4,848
T	RIV050552	0	IN COACHELLA VALLEY FOR SUNLINE - PURCHASE 6 REPLACEMENT ALT-FUEL (12-15 PASS) PARATRANSIT DIAL-A-RIDE VANS W/ LIFTS, RADIOS, FAREBOXES, & ACCESSORIES (FY 07 5307, UZA: INDCCPS)	$758
T	RIV050553	0	IN TEMECULA - CONSTRUCT NEW TEMECULA TRANSIT CENTER IN THE VICINITY ALONG YNEZ RD ABOUT 0.5 MILES N/O WINCHESTER RD (SR79) (04, 05, 06 #315 (E-2006-BUSP-191) SAFETEA LU EARMARKS)	$2,026
T	RIV050554	0	BUS STOP AMENITIES: PURCHASE BENCHES, KIOSKS, SIGN POLES/EXTENSIONS, BUS SIGNS, TRASH RECEPTACLES, ETC. TO REHAB VARIOUS EXISTING STOPS/SHELTERS (FY 06 5307, UZA: RIV-SAN) (TE)	$110
T	RIV050556	0	BUS RAPID TRANSIT (BRT) ENHANCEMENTS: DEVELOP BRT ENHANCEMENT PLAN (E.G. PROMOTIONAL STRATEGIES, BRAND AWARENESS & RIDERSHIP SCENARIOS, ETC.) (FY 06 5307 UZA: TEM/MURR) (TE)	$400
T	RIV051001	0	IN THE COAHELLA VALLEY AREA FOR ANGELVIEW CRIPPLED CHILDREN'S FOUNDATION: PURCHASE 1 REPLACEMENT MEDIUM BUS (APPROX 12 PASS, GAS/DIESEL) W/ LIFT & TIEDOWNS (5310 FY 05/06 CYCLE)	$59
T	RIV051002	0	IN WESTERN RIVERSIDE COUNTY FOR PEPPERMINT RIDGE: PURCHASE 3 REPLACEMENT MODIFIED VANS (APPROX 8 PASS., GAS/DIESEL) AND MAINTENANCE EQUIPMENT (5310 FY 05/06 CYCLE)	$169
T	RIV051003	0	IN WEST. RIV. CO. FOR CARE-A-VAN TRANSIT, INC.: PURCHASE 1 REPLACEMENT MINIVAN (APPROX 5 PASS.) & 1 REPLACEMENT MODIFIED VAN (APPROX 8 PASS.)(BOTH GAS/DIESEL) (5310 FY 05/06 CYCLE)	$94
T	RIV051004	0	IN COACHELLA VALLEY FOR DESERT HEALTHCARE FOUNDATION: PURCHASE 3 REPLACE. MINIVANS (APPROX 5 PASS) & 1 REPLACE. MODIFIED VAN (APPROX 8 PASS) (BOTH GAS/DIESEL) (5310 FY 05/06 CYCLE)	$181

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	RIV051005	0	IN WESTERN RIVERSIDE COUNTY FOR RTA: PURCHASE 10 EXPANSION MINIVANS (APPROX 5 PASSENGERS EACH, GAS/DIESEL) (5310 FY 05/06 CYCLE)	$410
T	RIV051006	0	IN WESTERN RIVERSIDE COUNTY FOR CARE CONNEXXUS INC.: PURCHASE 1 EXPANSION LARGE BUS (APPROX 16 PASSENGERS, GAS/DIESEL) W/ LIFT AND TIEDOWNS (5310 FY 05/06 CYCLE)	$63
T	RIV051007	0	NEAR MORENO VALLEY S/O ALESSANDRO BLVD BETWEEN SAN JAC BRANCH LINE & I-215: CONSTRUCT NEW MORENO VALLEY MULTI-MODAL TRANSIT CENTER AT 14211 MERIDIAN PKWY	$4,839
T	RIV051201	0	IN CORONA - IMPLEMENT NEW 60 SPACE PARK-AND-RIDE LOT (VIA ANNUAL LEASE AGREEMENT) AT FAITH BIBLE CHURCH AT 1114 W. ONTARIO AVE (TCM SUBSTITUTION FOR CORONA'S 3 EXPANSION BUSES)	$21
T	RIV060201	0	AT SUNLINE'S EXISTING HYDROGEN INFRASTRUCTURE/FACILITY IN THOUSAND PALMS: UPGRADE & MODERNINZE HYDROGEN FUEL REFORMER (FY 05 EARMARK: CLEAN FUELS MALL INFRASTRUCTURE EXPANSION)	$547
T	RIV060202	0	IN THE COACHELLA VALLEY AREA FOR THE FOUNDATION FOR THE RETARDED OF THE DESERT: PURCHASE 2 EXPANSION LARGER BUSES (APPROX 20 PASS, GAS/DIESEL) (FY 05/06 5310 CYCLE)	$176
T	RIV060203	0	IN THE COACHELLA VALLEY AREA FOR THE FOUNDATION FOR THE RETARDED OF THE DESERT: PURCHASE 1 REPLACEMENT LARGER BUS (APPROX 20 PASS, GAS/DIESEL) (FY 05/06 5310 CYCLE)	$87
T	RIV061102	0	IN CORONA - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 08 5307)	$193
T	RIV061103	0	IN CORONA - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 09 5307)	$183
T	RIV061104	0	PURCHASE 5 REPLACEMENT DIAL-A-RIDE 16-18 PASS., GAS/DIESEL BUSES W/ LIFTS, FARE BOXES, CAMERAS, DIGITIAL HEAD SIGNS, COMM EQUIP, ACCESSORIES & PAINT/GRAPHICS (FY 09 5307)	$380
T	RIV061105	0	FOR RIV SS - PURCHASE/INSTALL VEHICLE LOCATOR EQUIPMENT FOR PROVIDING A 25 VEHICLE FLEET MOBIL DATA & GPS INFO FOR INCREASED PASSENGER/DRIVER SECURITY (FY 07 5307) (UZA: RIV-SAN)	$260
T	RIV061106	0	IN RIVERSIDE FOR RIVERSIDE SPECIAL SERVICES - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 08 5307)	$105
T	RIV061107	0	PURCHASE 5 REPLACEMENT ALT-FUEL (CNG) (APPROX 12 PASS) DIAL-A-RIDE PARATRANSIT VEHICLES W/ LIFTS, TIEDOWNS, FAREBOXES, RADIOS, CAMERAS, & ACCESSORIES (FY 08 5307)	$500
T	RIV061108	0	IN WESTERN RIV COUNTY FOR RTA - PURCHASE 23 REPLACEMENT TYPE 2 (GAS/DIESEL) (APPROX 12 PASSENGER) PARATRANSIT VEHICLES W/ LIFTS & ACCESSORIES (FY 07 5307) (UZA: RIV-SAN)	$1,334
T	RIV061109	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - PURCHASE 2 REPLACEMENT SUPPORT TRUCKS AND LEASE 5 REPLACEMENT SUPPORT CARS (ALL GAS/DIESEL) (FY 07 5307) (UZA: RIV-SAN)	$131
T	RIV061111	0	BUS STOP AMENITIES: PURCHASE BENCHES, POLES/EXTENSIONS, SIGNS, TRASH RECEPTACLES, ETC. TO REHAB, INSTALL, & EXPAND EXISTING STOPS/SHELTERS (FY 07 5307) (UZA: RIV-SAN+TEM/MURR) (TE)	$139
T	RIV061112	0	CAPITAL MAINTENANCE SPARES: PURCHASE ROLLING STOCK CAPITAL PARTS (E.G ALTERNATOR, MANIFOLDS, PUMPS, CONTROLLER, TRANSMISSION, COMPRESSOR, ETC.) (FY 07 5307) (UZA: RIV-SAN)	$307

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	RIV061113	0	PURCHASE REPLACE. SHOP EQUIP. (E.G. PARALLELOGRAM & SEFEC LIFTS, STAR BRAKE LATHE, PRESSURE WASHER, BUS WASH BRUSH, TIRE/VACUUM MACHINES, SWEEPERS, ETC.) (FY 07 5307)(UZA: RIV-SAN)	$159
T	RIV061114	0	IN WESTERN RIVERSIDE CO FOR RTA - PURCHASE MISCELLANEOUS ADMINISTRATIVE EQUIPMENT (E.G. ID CARD PRINTER, BOARD ROOM AUDIOVISUAL EQUIPMENT, ETC.) (FY 07 5307) (UZA: RIV-SAN)	$14
T	RIV061115	0	AT RTA EXISTING ADMINISTRATIVE FACILITIES - SUPPORT FACILITIES REPAIRS (E.G. HEMET ROOF REPAIR/SEAL, RIVERSIDE LIGHTING RETROFIT, ETC.) (FY 07 5307) (UZA: RIV-SAN)	$57
T	RIV061116	0	AT RTA EXISTING RIVERSIDE MAINT. FACILITY: MAINTENANCE SUPPORT UPGRADES (E.G. EXHAUST SYSTEM MODIFICATION, METHANE DETECTION SYSTEM UPGRADE, ETC.) (FY 07 5307) (UZA: RIV-SAN)	$65
T	RIV061117	0	AT EXISTING RTA RIVERSIDE & HEMET FACILITIES: YARD & SHOP FACILITY REPAIRS (E.G. CONCRETE REPLACEMENT, PARKING LOT REPAIRS, ASPHALT REPAIRS, ETC.) (FY 07 5307) (UZA: RIV-SAN)	$224
T	RIV061118	0	IN WESTERN RIVERSIDE COUNTY FOR RTA: PURCHASE 13 GFI ODYSSEY FAREBOXES (8 FOR LAIDLAW CONTRACTED & 5 FOR RTA) (FY 07 5307) (UZA: RIV-SAN)	$178
T	RIV061119	0	IN WESTERN RIVERSIDE COUNTY FOR RTA: LEASE COST OF AUTOMATIC PASSENGER COUNTER (APC) UNITS INSTALLED ON BUSES (FY 07 5307) (UZA: RIV-SAN)	$62
T	RIV061120	0	PURCHASE ADP HARD/SOFTWARE (E.G. NEW & REPLACE. SERVERS, TEL RECORDING/TRANS TRAK SYS FOR DAILY OPS, UPGRADE TIME KEEPING SYSTEM & GIS ANNUAL UPDATE) (FY 07 5307) (UZA: RIV- SAN)	$560
T	RIV061121	0	IN WESTERN RIVERSIDE COUNTY FOR RTA: INSTALL AUTOMATED TRAVELER INFORMATION SYSTEM (ATIS) ON VARIOUS FIXED ROUTE VEHICLES (APPROX 97) (SAFETEA LU EARMARK -#171, E-2006-BUSP-157)	$122
T	RIV061122	0	IN WESTERN RIVERSIDE COUNTY FOR RTA: PURCHASE ADP HARDWARE/COMPUTER EQUIPMENT (E.G. DESKTOP AND NOTEBOOK COMPUTERS PLUS PRINTERS, ETC.) (FY 07 5307) (UZA: RIV-SAN)	$64
T	RIV061123	0	UPGRADE SELECTED RURAL AREA BUS STOPS (E.G. CONCRETE PAD CONSTRUCTION, W/ ONE WAITING BENCH, SIGN, TRASH RECEPTACLE & INSTALL MODERN BUS SHELTERS OVER BENCH AREA)	$77
T	RIV061124	0	IN WESTERN RIVERSIDE COUNTY FOR RTA IN FY 07/08 - OPERATING ASSISTANCE: FIXED ROUTE & DIAL-A-RIDE (FY 08 5307)	$49,601
T	RIV061125	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 08 5307)	$4,671
T	RIV061126	0	FOR THE CITY OF CALEXICO THROUGH RTA (PASS THROUGH) - PURCHASE ONE REPLACEMENT FULL-SIZED BUS (40 FOOT, APPROX 40 PASSENGER, ALT-FUEL/CNG) (EARMARK # E-2004-BUSP-038)	$374
T	RIV061127	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - PURCHASE 33 REPLACEMENT TYPE 2 (GAS/DIESEL) (APPROX 12 PASSENGER) PARATRANSIT VEHICLES W/ LIFTS & ACCESSORIES (FY 08 5307)	$2,778
T	RIV061128	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - PURCHASE 4 REPLACEMENT BUSES (APPROX 40 FEET, 40-44 PASSENGER, ALT-FUEL/CNG) (FY 08 5307)	$146
T	RIV061129	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - PURCHASE 2 REPLACEMENT SUPPORT CARS AND 2 REPLACEMENT SUPPORT STAKE BED TRUCKS (GAS/DIESEL) (FY 08 5307)	$340

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	RIV061130	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - DEBT FINANCING (FY 07/08 PORTION) FOR 57 TRANSIT COACHES, 25 REPLACEMENT, 32 EXPANSION (FY 08 5307)	$2,034
T	RIV061131	0	BUS STOP AMENITIES: PURCHASE BENCHES, POLES/EXTENSIONS, SIGNS, TRASH RECEPTACLES, ETC. TO REHAB & EXPAND EXISTING STOPS/SHELTERS (FY 08 5307)	$119
T	RIV061132	0	CAPITAL MAINTENANCE SPARES: PURCHASE ROLLING STOCK CAPITAL PARTS (E.G. ALTERNATOR, MANIFOLDS, PUMPS, CONTROLLER, TRANSMISSION, COMPRESSOR, ETC.) (FY 08 5307)	$446
T	RIV061133	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - CAPITALIZED COST OF TIRE LEASE (FY 08 5307)	$227
T	RIV061134	0	PURCHASE ADP HARDWARE/SOFTWARE (E.G. NEW & REPLACE. SERVERS, SCHEDULING & RUNCUTTING SOFTWARE, UPGRADE TIME KEEPING SYSTEM, ORACLE 11I ENHANCEMENT, GIS UPDATE, ETC.) (FY 08 5307)	$10
T	RIV061135	0	IN WESTERN RIVERSIDE COUNTY FOR RTA: INSTALL AUTOMATED TRAVELER INFORMATION SYSTEM (ATIS) ON VARIOUS FIXED ROUTE VEHICLES (SAFETEA LU EARMARK #171)	$135
T	RIV061136	0	IN WESTERN RIVERSIDE COUNTY FOR RTA: PURCHASE ADP HARDWARE/COMPUTER EQUIPMENT (E.G. DESKTOP AND NOTEBOOK COMPUTERS PLUS PRINTERS, ETC.) (FY 08 5307)	$58
T	RIV061137	0	IN WESTERN RIVERSIDE COUNTY FOR RTA - PURCHASE NEW SHOP EQUIPMENT (E.G. FLOOR AND PARKING LOT SWEEPERS) (FY 08 5307)	$13
T	RIV061138	0	AT EXISTING RTA RIVERSIDE & HEMET FACILITIES: SECURITY PROJECTS (E.G. CONSTRUCT GUARD HOUSES, INSTALL VIDEO SURVEILLANCE EQUIP, UPGRADE CARD ACCESS CONTROLS, ETC.) (FY 08 5307)	$151
T	RIV061139	0	AT EXISTING RTA ADMINISTRATION FACILITIES: PURCHASE REPLACEMENT ADMINISTRATIVE SUPPORT EQUIPMENT (E.G. REFRIGERATION UNITS) (FY 08 5307)	$2
T	RIV061140	0	AT EXISTING RTA MAINTENANCE FACILITY: MAINTENANCE SHOP REPAIRS (E.G. FLOOR PAINTING, ETC.) (FY 08 5307)	$65
T	RIV061141	0	IN WESTERN RIVERSIDE COUNTY FOR RTA: PURCHASE 4 GFI ODYSSEY FAREBOXES (FY 08 5307)	$796
T	RIV061142	0	IN WESTERN RIVERSIDE COUNTY FOR RTA: LEASE COST OF AUTOMATIC PASSENGER COUNTER (APC) UNITS INSTALLED ON BUSES (FY 08 5307)	$290
T	RIV061143	0	RCTC'S SHARE OF OCTA'S FY 07 REHAB AND RENOVATION (FY 07 5307) (UZA: RIV-SAN)	$77
T	RIV061144	0	ROLLING STOCK MAINT. FACILITY IN SBD - FUNDING TO BUILD NEW COMMUTER TRAIN STORAGE & MAINTENANCE FACILITIES & CONNECTING TRACKS IN INLAND EMPIRE (FY 07 5307 SHARE) (UZA: RIV-SAN)	$2,261
T	RIV061145	0	SCRRA REHABILITATION AND RENOVATION OF TRACK AND ROLLING STOCK SIGNAL STRUCTURE (RCTC'S FY 08 PORTION) TO SCRRA PROJECT) (FY 08 5307)	$509
T	RIV061146	0	IN WESTERN RIVERSIDE COUNTY FOR PEPPERMINT RIDGE: PURCHASE 2 BASE STATIONS, 13 MOBILE RADIOS, COMPUTER EQUIPMENT, AND SOFTWARE (FY 06/07 5310 CYCLE)	$34

RIVERSIDE COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	RIV061147	0	IN THE COACHELLA VALLEY AREA FOR ANGEL VIEW CRIPPLED CHILDREN'S FOUNDATION - PURCHASE 1 REPLACEMENT MEDIUM BUS (APPROX 12 PASSENGERS, GAS/DIESEL) (FY 06/07 5310 CYCLE)	$61
T	RIV061148	0	IN THE COACHELLA VALLEY AREA - PURCHASE 1 REPLACEMENT MEDIUM BUS (APPROX 12 PASSENGER, GAS/DIESEL), MOBILE RADIO, & COMPUTER EQUIPMENT (FY 06/07 5310 CYCLE)	$67
T	RIV061149	0	IN WESTERN RIVERSIDE COUNTY FOR PEPPERMINT RIDGE - PURCHASE 2 EXPANSION MODIFIED VANS (APPROX 8 PASS EACH, GAS/DIESEL) (FY 06/07 5310 CYCLE)	$108
T	RIV061150	0	IN COACHELLA VALLEY AREA FOR FOUNDATION FOR THE RETARDED OF THE DESERT - PURCHASE EXPANSION 1 LARGE BUS & 1 MODIFIED VAN (APPROX 16 & 8 PASS., GAS/DIESEL) (FY 06/07 5310 CYCLE)	$119
T	RIV061151	0	IN THE COACHELLA VALLEY AREA - PURCHASE10 REPLACEMENT ALT-FUEL BUSES (RANGES 30'-40', APPROX 30-43 PASS., CNG) (FY 07 5307) (UZA: INCCPS) (SAFETEA LU EARMARK #45, E-2006-BUSP-148)	$4,096
T	RIV061152	0	PURCHASE TRANSIT ENHANCE. BUS STOP AMENITIES (E.G. BENCHES, TRASH CONTAINERS, KIOSK LEXANS & SCHEDULES, SHELTERS, SUPPLIES, ETC.) FOR VARIOUS STOPS (FY 07 5307) UZA: INCCPS) (TE)	$411
T	RIV061153	0	PURCHASE REPLACEMENT MAINTENANCE TOOLS, EQUIPMENT, & PARTS (E.G. MULTI-METERS, TORQUE WRENCHES, IMPACT SOCKETS, SERVICE JACKS, AIR & HAND TOOLS, ETC.) (FY 07 5307) (UZA: INCCPS)	$205
T	RIV061154	0	IN THE COACHELLA VALLEY FOR SUNLINE - FIXED ROUTE AND DIAL-A-RIDE OPERATING ASSISTANCE FOR FISCAL YEAR 2007/08	$18,287
T	RIV061155	0	IN THE COACHELLA VALLEY AREA FOR SUNLINE - CAPITALIZED PREVENTATIVE MAINTENANCE (FY 08 5307)	$1,582
T	RIV061157	0	PURCHASE TRANSIT ENHANCE. BUST STOP AMENITIES (E.G. BENCHES, TRASH CONTAINERS, KIOSK LEXANS & SCHEDULES, SHELTERS, SUPPLIES, ETC.) FOR VARIOUS STOPS (FY 08 5307) (TE)	$400
T	RIV061158	0	PURCHASE REPLACEMENT MAINTENANCE TOOLS, EQUIPMENT, & PARTS (E.G. MULTI-METERS, TORQUE WRENCHES, IMPACT SOCKETS, SERVICE JACKS, AIR & HAND TOOLS, ETC.) (FY 08 5307)	$216
T	RIV32420	0	IN COACHELLA VALLEY AREA PURCHASE 12 REPLACEMENT ALT FUEL PARATRANSIT VEHICLES DURING FY 2003/04 - 04/05 (6 IN 03/04 AND 6 IN 04/05)	$753
T	RIV520109	0	RECONSTRUCT & UPGRADE SAN JACINTO BRANCH LINE FOR RAIL PASSENGER SERVICE (RIVERSIDE TO PERRIS) (PERRIS VALLEY LINE)	$193,378
T	RIV520111	0	REGIONAL RIDESHARE	$10,123

* S=State Highway, L=Local Highway, T=Transit

SAN BERNARDINO COUNTY RTIP PROJECTS

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	200455	0	PLANNING, PROGRAMMING AND MONITORING AB3090 PAYBACK PROJECTS	$632
S	150D	0	IN COLTON FROM 0.2 MIL (0.3 KM) W/O RANCHO AVE TO 0.9 MI (1.5 KM) E/O LA CADENA DRIVE - CONSTRUCT RR TO RR GRADE SEPARATION	$147,974
S	SBD59303	0	SET ASIDES/RESERVATIONS FOR FUTURE SB45 -PLANNING, PROGRAMMING, & MONITORING	$4,056
S	1830	10	I-10 AT CEDAR AVE. BETWEEN SLOVER AND VALLEY- RECONSTRUCT I/C-WIDEN FROM 4-6 LANES WITH LEFT AND RIGHT TURN LANES. ADD AUX LANE ON E/B ON AND OFF RAMPS	$48,889
S	34090	10	IN FONTANA AT ALDER AVENUE CONSTRUCT INTERCHANGE	$26,674
S	38420	10	ON I-10 FROM 0.1 KM W/O I-10/I-215 TO 0.2 KM W/O WABASH O/C & I-215 FROM 0.0-4.3 FROM RVSDE CO TO I-10/215 JCT. INSTALL FOC BACKBONE SYSTEM, MODIFY COMMUNIC HUB; WIDEN RAMPS	$16,855
S	43320	10	IN YUCAIPA @ LIVE OAK CANYON ROAD INTERCHANGE RECONFIGURE INTERCHANGE AND WIDEN LIVE OAK CANYON ROAD FROM 2 TO 6 THRU LANES (I-10/LIVE OAK CANYON) (TCRP #59)	$18,634
S	44810	10	I-10 TIPPECANOE INTERCHANGE I/C CONFIGURATION & ADD AUX LANES; HP#1366 (AUX LANE IS FOR EASTBOUND TRAFFIC FROM WATERMAN ON-RAMP TO TIPPECANOE OFF-RAMP.	$52,125
S	49750	10	IN FONTANA, FROM 0.8KM E/OF ETIWANDA AVE OVC TO 1.5 KM W/O RIVERSIDE AVE. O/C-WIDEN EXIT RAMPS AND CONSTRUCT AUX. LANES	$32,693
S	200432	10	AT I-10 AND FORD ST. ON RAMP TO THE FREEWAY - SIGNAL AND INTERSECTIONS IMPROVEMENTS	$700
S	200434	10	ON I-10 IN REDLANDS AND YUCAIPA FROM FORD ST. O/C TO LIVE OAK CANYON RD. CONSTRUCT 1 W/B MIXED-FLOW LANE	$43,186
S	2002160	10	I-10 AT GROVE INTERCHANGE AND GROVE AVE. CORRIDOR - RELOCATE I/10 & 4TH ST. I/C TO GROVE AVE. AND WIDEN GROVE AVE BETWEEN I-10 TO HOLT (WIDEN 4-6 LANES)	$97,335
S	2002163	10	AT I-10 AND SPERRY INTERCHANGE - CONSTRUCT AN ADDITIONAL LANE ON OFF RAMP	$1,875
S	20020812	10	I-10/CHERRY AVENUE INTERCHANGE - INTERCHANGE RECONSTRUCT -WIDEN I/C FROM SLOVER TO VALLEY FROM 4-6 LANES AND 1 AUX LN IN EA. DIR. WITH DOUBLE LEFT TURNS TO RAMPS	$71,663
S	0H930	10	FROM WATERMAN AVE UC TO ALABAMA ST OC - RESTRIPE ROADBED TO ADD A WESTBOUND AUXILIARY LANE (MINOR A)	$400
S	0H760	10	FROM WATERMAN AVE UC TO ALABAMA ST OC - RECONSTRUCT MEDIAN BARRIER, PAVE MEDIAN, AND RESTRIPE ROADBED TO ADD EASTBOUND AUX LANE (EA 0H760)0, CALTRANS MINOR 'A'.	$1,000
S	SBD031269	10	IN FONTANA AT BEECH AVENUE CONSTRUCT 4 LANE INTERCHANGE (2 LANES IN EACH DIRECTION.	$42,400

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	SBD31808	10	I-10 AT RIVERISDE AVE - 2.1 KM W/O RIVERSIDE AVE TO 1.3 KM E/O RIVERSIDE AVE. MODIFY IC 4 TO 9 LNS (INCL TURN LNS) FROM SLOVER TO VALLEY & ADD AUX LANES & OPER IMPRV	$30,127
S	SBD32225	10	AIRPORT GROUND ACCESS AT I-10/HAVEN LANDSCAPING & IRRIGATION	$2,788
S	SBD41147	10	AIRPORT GROUND ACCESS -I-10 AT ARCHIBALD AVE - INSTALL IRRIGATION SYSTEM AND LANDSCAPE PLANTING	$2,867
S	SBD41339	10	I-10 AT PEPPER AVE. REPLACE (I/C)-FROM 5-7 LANES WITH LEFT AND RIGHT TURN	$8,250
S	SBD45000	10	IN FONTANA: I-10 AT CITRUS AVE IC RECONSTRUCT IC WITH 6 THRU LANES; & REPLACE BRIDGE OVERCROSSING(O/C WIDEN FROM 2-6 LNS) AND WIDEN CITRUS FROM SLOVER TO VALLEY 4-6 LNS.	$50,453
S	SBD55022	10	CYPRESS AVENUE FROM VALLEY BLVD. TO SLOVER AVENUE CONSTRUCT NEW FOUR LANE BRIDGE OVERCROSSING OVER I-10 WITH TRAFFIC SIGNALS & SAFETY LIGHTING	$25,993
S	33390	15	AT MOJAVE DR OVERCROSSING (ROY ROGERS IC) WIDEN BRIDGE- NORTH SIDE (VILLAGE DR TO LA PAZ DR) FROM 2 TO 4 LANES, WIDEN RAMPS @ MOJAVE DR INTRSCTN: NB/SB ON 1 TO 2: NB/SB OFF 1TO 3	$13,281
S	34170	15	IN VICTORVILLE AT LA MESA ROAD/NISQUALLI ROAD CONSTRUCT I/C	$77,120
S	35556	15	IN VICTORVILLE FROM MOJAVE DR TO 1 MILE N/O EXISTING STODDARD WELLS RD OVERCROSSING - RECONSTRUCT D AND E ST IC, RELOCATE STODDARD WELLS RD IC, WIDEN MOJAVE RIVER BRIDGE & VICTORVILLE SEPARATION & OVERHEAD, UPGRADE 2.7 MILES OF MAINLINE TO ROADWAY STANDARDS, REALIGN EAST FRONTAGE RD, CONSTRUCT NEW WEST FRONTAGE RD	$138,976
S	35558	15	IN SAN BERNARDINO CO. - ON I-15 FROM MOJAVE DR. IN VICTORIVILE TO STODDARD WELLS RD. IN BARSTOW-RETENTION WALL ENHANCMENTS AND LANDSCAPING	$2,446
S	47610	15	NEAR BAKER FROM 5.9 KM NORTH OF AFTON RD OC TO 2.3 KM SO. OF BASIN RD.OC; ADD AC INSIDE (SOUTHBND TRUCK CLIMB LN & RECONSTRUCT INSIDE SHOULDER (P MI ARE R115.2/R119.0) (PPNO-176A)	$13,510
S	200048	15	I-15 AT BASELINE INTERCHANGE - WIDEN RAMPS (INCLUDING BRIDGES), ADD AUX LANES, AND OPERATIONAL IMPROVEMENTS(ALSO -COST INCREASE) (EA497100)	$41,869
S	200078	15	PARK-N-RIDE LOT EXPANSION AND FACILITIES AT BEAR VALLEY RD & I-15 (70 EXISTING SPACES TO 300 SPACES)	$705
S	200152	15	ON I-15 FROM 200 FT. N. OF FOOTHILL BLVD. TO 2000 FT. SO. OF ARROW RTE.AND ON ARROW RT. FROM 1000 FT.W/TO 1000 FT. E/ OF I- 15-CONSTRUCT NEW I/C, AUX LANES, & OPERATN'L IMPROVMTS.	$59,700
S	200428	15	IN RANCHO CUCAMONGA AT N/B I-15 AND FOOTHILL BLVD. ON RAMP- WIDEN EXISTING ONE LANE OFF RAMP TO 2 LANES AND ADD 400 METER DECELERATION LANE (EA 0C0701) (MINOR A)	$2,207
S	200605	15	I-15/BASELINE RD. - WIDEN RAMPS AND INSTALL TRAFFIC METERING (SOUTHBOUND AND NORTHBOUND)	$950
S	200606	15	I-15/FOOTHILL BLVD. - WIDEN SB DIRECT OFF-RAMP AND CONSTRUCT DECELERATION LANE (EA 0H790)	$5,136

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	200613	15	I-15 & MUSCATEL STREET & 1-15 OVERPASS-CONSTRUCT NEW OVERPASS AND NEW APPROACH TO ROADWAYS ON BOTH SIDES TO ADJOIN EXISTING ROADS	$22,500
S	0A6410	15	I/15 AT VALLEY WELLS REST AREA - DEVELOP WELCOME CENTER (PPNO -176D)	$1,671
S	0H1300	15	I-15/DUNCAN CANYON INTERCHANGE - CONVERT EXIST 2 LN OVERCROSSING TO DIAMOND IC, WIDEN TO 4 LANES PLUS DBL LEFT TURNS TO SB RAMP ACCEL/DECEL LANES & SINGLE LEFT TO NORTHBOUND RAMP	$18,000
S	SBD031279	15	IN HESPERIA AT RANCHERO ROAD CONSTRUCT 6 LANE INTERCHANGE	$57,605
S	SBD41288	15	I-15 AND JOSHUA OFFRAMP - CONSTRUCT NORTHBOUND OFFRAMP AT JOSHUA - 2 LANE	$1,000
S	SBD41446	15	EUCALYPTUS AT I-15 CONSTRUCT INTERCHANGE 3 LANES IN EA DIR STANDARD I/C CONFIG.	$25,000
S	SBD55015	15	IN BARSTOW I-15 AT OLD RTE. SR58 - CONSTRUCT NEW INTERCHANGE (T21-#926) BUILD OVERCROSSING AND UNDERCROSSING/ BRIDGE AND PROVIDE CONNECTORS	$3,450
S	SBD55026	15	EUCALYPTUS STREET FROM I-15 TO PEACH AVENUE - RECONSTRUCT AND WIDEN FROM 2 TO 4 LANES AND CONSTRUCT RAILROAD CROSSING	$8,546
S	200612	18	SR 18 FROM APPLE VALLEY RD. TO CORWIN RD. - WIDEN FROM 4-6 LANES (APPROX. 3 MI)	$14,400
S	0A7910	18	IN RUNNING SPRINGS FROM RTE. 18 FROM N/O NOB HILL DR. TO S/O R.S. SCHOOL RD. AND RTE 330 FROM S/O RTE. 18 TO RTE. 18-RURAL GATEWAY BEAUTIFICATION-AESTHETIC IMPROVEMTNS	$2,265
S	4351	58	NEAR HINKLEY FROM 1.4 MILES WEST OF VALLEY VIEW RD. TO 0.7 MILES EAST OF LENWOOD ROAD -- REALIGN AND WIDEN TO 4 LANE EXPRESSWAY (2-4 LANES) (PHASE 2)	$154,478
S	34770	58	KERN CO LINE TO 7.5 MI EAST OF JCT RTE 395 - CONSTRUCT 4 LANE EXPRESS WAY ON NEW ALIGNMENT	$158,397
S	200602	60	SR 60 AND VINEYARD AVE. INTERCHANGE RECONSTRUCTION-LENGTHEN BRIDGE TO ACOMMODATE VINEYARD AVE WIDENING AND RAMP WIDENING 4-6 LANES	$44,250
S	200604	60	SR60 AT GROVE AVENUE INTERCHANGE RECONSTRUCTION AND GROVE AVE. +/-300 FT. N/S OF SR 60-WIDEN FROM 4-6 LANES	$44,520
S	200435	62	ON SH62 IN YUCCA VALLEY FROM APACHE TRAIL EAST TO APPROX 0.5 MILES TO PALM AVE. INSTALL NEW RAISED MEDIAN, CONSTRUCT CURB & GUTTER & NEW STREET LIGHTS	$2,741
S	20060201	62	ON SR 62 FROM CHOLLA AVE TO TROJAN WAY - INSTALL RAISED MEDIAN ISLANDS, SIDEWALKS, AND CURB AND GUTTER (APPROX. 1 MILE)	$100
S	20060203	62	SR 62 SAFETY & UTILITY IMPROVMNTS-TCRP 129 ON SR 62 FROM LA HONDA WY EAST APPROX. 0.2 MILES TO KICKAPOO TRAIL - INSTALL RAISED LANDSCAPED MEDIANS, SIDEWALKS, UTIL U/GROUND/DRAINAGE	$320
S	20010133	66	ON FOOTHILL BOULEVARD FROM GROVE TO VINEYARD- WIDEN FROM 4-6 LANES,MEDIAN ISLAND, TRAFFIC SIGNS,STORM DRAIN AND BIKE/PED BRIDGE(7,000 FT)	$15,023

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	20020137	66	IN RANCHO CUCAMONGA - ON FOOTHILL BOULEVARD-FROM ARCHIBALD TO HAVEN AVE. WIDEN PORTIONS OF AREA 4-6 LANES	$1,850
S	20020138	66	IN RANCHO CUCAMONGA ON FOOTHILL BLVD. FROM VINEYARD TO ARCHIBALD AVE. - WIDEN FROM 4 - 6 LANES	$1,200
S	SBD031247	66	IN FONTANA FROM EAST AVENUE TO HEMLOCK AVE -WIDEN FROM 4 TO 6 LANES WIDEN TO STATE STANDARDS FOR 6 LANE (SCHEDULE DELAY ALSO)	$3,200
S	SBD41205	66	FOOTHILL BLVD. (66) I-15 TO ETIWANDA WIDEN NORTHSIDE FROM 2-3 LANES AND CONSTRUCT SIGNAL (SOUTHSIDE WIDENING COMPLETE 2-3 LANES)	$1,500
S	SBD41206	66	FOOTHILL BLVD. (66) ETIWANDA TO EAST STREET WIDEN FROM 4-6 LANES ,INSTALL SIGNAL AND ADD MEDIAN ISLAND	$3,050
S	0F100	71	ON RTE. 71 FROM SOQUEL CYN PARKWY TO RIVERSIDE CO. LINE AND RIV. CO FROM S.B. CO LINE TO SANTA ANA RIVER BRIDGE -PHASE 1- TREE PLANTING AND AESTHETICS	$1,505
S	SBD41434	83	EUCLID AVE. AT 8TH STREET INTERSECTION IMPROVEMENTS/MODIFI- CATIONS INCLUDING LEFT TURN POCKET AND PROTECTED LEFT PHASING	$500
S	34011	138	NEAR WRIGHTWOOD FROM PHELAN RD TO I-15 WIDEN FROM 2 TO 4 LANES FROM BEEKLEY ROAD TO JCT 15; CONST 2 WILDLIFE CROSSINGS & 1 ADD'L LN EB FROM PHELAN RD TO BEEKLEY ROAD	$85,497
S	20432	210	ON RTE 210 FROM ETIWANDA AVE.- 2.0 MI. NORTH TO 0.5 MI SOUTH OF RTE 210 - MITIGATION PLANTING 2,200 1-GAL. EUCALYPTUS TREES	$1,802
S	20620	210	UPLAND TO SAN BERNARDINO FROM LA CO LINE TO RTE 215 - 8 LN FREEWAY INCLUDING 2 HOV LNS (6+2)-210 CORR. W/AUX LNS THRUOUT SEGS. 9-11(SEG.11 INCL CONNECTOR BETWEEN 210 & 215 (MORE)	$402,339
S	200626	210	INLAND EMPIRE TRANSPORTATION MANAGEMENT CENTER AT EXISTING PARK N RIDE FACILITY - INSTALL TMC -IN THE SOUTHEAST QUADRANT OF I-15 AND SR 210 I/C ON VICTORIA AVE (I/T CITY OF FONTANA	$44,345
S	3770U	210	IETMC/SO. REGIONAL LAB SITE WORK & PARK AND RIDE FACILITY - I/15/SR-210 I/C, NORTH SIDE OF VICTORIA AVE-CIVIL SITE WORK FOR IETMC (GRADING, DRAINAGE, UTILITIES, ETC.)	$9,382
S	713	215	I-215 CORRIDOR NORTH - IN SAN BERNARDINO, ON I-215 FROM RTE 10 TO RTE 210 - ADD 2 HOV & 2 MIXED FLOW LNS (1 IN EA. DIR.) AND OPERATIONAL IMP INCLUDING AUX LANES AND BRAIDED RAMP	$677,012
S	200614	215	I-215 BI-COUNTY IMPROVMT PROJECT - I-215 FROM - SR60/SR91/I-215 I/C IN RIVERSIDE TO ORANGE SHOW RD. IN SAN BERNARDINO- ADD 1 HOV & 1 MIXED FLOW LN IN EA.DIR.& ADD DECEL AND ACCEL LNS W/LOCAL RDS W/ ADDITIONAL IMPROVEMTNS AT COLUMBIA AVE, CENTER ST., IOWA AVE, WASHINGTON	$1,755,764
S	SBD31850	215	IN GRAND TERRACE AT BARTON ROAD INTERCHANGE WIDEN OVERCROSSING FROM 2 TO 4 LANE	$78,378
S	SBD59204	215	I-215 AT UNIVERSITY PARKWAY INTERCHANGE - CONSTRUCT SOUTHBOUND UNIVERSITY PARKWAY -INTERCHANGE RECONFIGURATION AND AUX. LANE	$14,100

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	20020144	220	HI- DESERT CORR. -FROM 1.0 MI W/O SR 395 TO 1.0 S/O 18, CONST 4-6 LN FWY/EXPRY. NEW I/C @I/15 & AUX. LNS.ON I-15 N&S OF NEW IC.-- CNSTRCT IC@395 W/TURN POCKETS N&S ... ETC	$422,000
L	200006	0	CITRUS AVENUE FROM JURUPA TO SLOVER - WIDEN FROM 2-4 LANES W/LEFT TURN LANES AT INTERSECTIONS (SLOVER, SANTA ANA AVE. & JURUPA-3 INTERSECTIONS)	$7,750
L	200009	0	BELLFLOWER ST FROM AIR BASE RD TO (AUBURN)SR-395 - RESURFACE EXISTING ROADWAY (1.75 MILES, NO NEW LANES)	$438
L	200010	0	ASTER RD FROM VIOLET-AIR BASE TO BARTLETT-CRIPPEN - PAVE EXISTING 2 LANE DIRT ROAD (1.25 MILES, NON-CAPACITY)	$325
L	200011	0	ADELANTO RD FROM CRIPPEN TO COLUSA 0 PAVE EXISTING 2 LANE DIRT ROAD (3 MILES, NON-CAPACITY)	$750
L	200012	0	MAPLE AVENUE FROM MARIPOSA TD. TO MAIN STREET - ROAD REHAB. - RESURFACING 2 EXISTING LANES (NO NEW LANES)	$2,310
L	200013	0	MAPLE AVENUE FROM MAIN ST. TO 650' SOUTH OF CROMDALE STREET - REHABILITATION - RESURFACE 2 LANE RD. (NO NEW LANES)	$1,975
L	200018	0	BOULDER AV ACROSS CITY CREEK S/O BASELINE - RECONSTRUCT EXISTING BRIDGE FROM 2 TO 4 LANES; ALSO WIDEN BOULDER AVE FROM 190' NORTH TO 1,430' SOUTH OF BRIDGE FROM 2-4 LANES	$20,325
L	200019	0	BASELINE ACROSS CITY CREEK - FROM 600' W TO 600' EAST OF CITY CREEK RECONSTRUCT EXISTING BRIDGE TO INCREASE HYDRAULIC CAPACITY (NO ADDTL LANES - STILL 4) REPLACING LOW WATER XING	$22,522
L	200021	0	RAMONA AV AT STATE ST - RAILROAD CROSSING GRADE SEPARATION-FUNDED WITH TCRP (PART OF ALAMEDA CORRIDOR STUDY)	$22,408
L	200022	0	6TH ST FROM HYSSOP DR TO 2500' EASTERLY - CONSTRUCT 2 LANES OF AN ULTIMATE 4 LANE ROAD	$900
L	200023	0	CHERRY AV FROM SOUTH CITY LIMITS TO WILSON AV - WIDEN FROM 2 TO 4 LANES	$470
L	200026	0	HAVEN AV UNDERPASS AT METROLINK (SCRRA) RAILROAD - JERSEY TO ACACIA -GRADE SEPARATION, 6 LANES, MEDIAN ISLAND, ADJACENT STREET RE-ROUTING	$16,460
L	200031	0	MILLIKEN AV FROM BANYAN ST TO WILSON AV - CONSTRUCT NEW 4 LANE STREET (PART OF PROJECT NOW UNDER CONSTRUCTION)	$1,100
L	200032	0	WILSON AV FROM AMETHYST ST TO HAVEN AV - WIDEN PORTIONS FROM 2 TO 4 LANES	$700
L	200033	0	WILSON AV FROM HAVEN AV TO CANISTEL AV - WIDEN FROM 2 TO 4 LANES	$500
L	200034	0	WILSON AV FROM ETIWANDA AV TO WARDMAN BULLOCK RD - CONSTRUCT NEW 4 LANE DIVIDED STREET	$2,900
L	200035	0	WABASH AV FROM 5TH ST TO I-10 - CONSTRUCT NEW 2 LANE STREET TO I-10 TO MATCH ON AND OFF RAMPS-CONSTRUCT MISSING LINK (2 LANE IN EACH DIRECTION)-1 MILE	$950

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	200049	0	MOJAVE RIVER BRIDGE CROSSING FROM TERMINUS OF YUCCA LOMA RD TO TERMINUS OF GREEN TREE BLVD - PRE. ENVIRONMENTAL REVIEW FOR CONSTRUCTION OF NEW 4 LANE BRIDGE	$28,500
L	200050	0	AMETHYST RD FROM SYCAMORE RD TO EUCALYPTUS RD - CONSTRUCT NEW 4 LANE ROAD	$1,200
L	200051	0	VISIONS 20/20 BRIDGE CROSSINGS ON 9TH, 2ND, 5TH, AND 'E' STREETS. VARIOUS LOCATIONS - BOX CULVERTS-TO ACCOMMODATE UNDERGROUND WATER SYSTEM. JOINT PROJECT W/IVDA & S.B.VALLEY WATER	$4,000
L	200064	0	WASHINGTON ST FROM RECHE CANYON TO HUNTS LANE - ELIMINATE BOTTLENECK, ADD 2 LANES TO 4 LANE ROAD USING EXISTING STREET WIDTH AT INTERSECTIONS, TRAFFIC SIGNAL IMPROVEMENTS	$570
L	200074	0	LUMP SUM - TRANSPORTATION ENHANCEMENT ACTIVITIES PROJECTS FOR SAN BERNARDINO COUNTY-BIKE/PED PROJECTS (PROJECTS CONSISTENT W/40CFR PART 93.126,127,128, EXEMPT TABLE 2 & 3).	$4,071
L	200111	0	VICTOR VALLEY COLLEGE TRANSFER POINT FACILITY - LOCATED 18422 BEAR VALLEY RD. IN VICTORVILLE	$837
L	200150	0	ADELANTO ROAD FROM AUBURN TO CHAPARRAL, AUBURN AVENUE FROM ADELANTO RD. TO JONATHAN AND JONATHAN FROM AUBURN TO LA HABRA- PAVE DIRT ROADS	$266
L	200151	0	EL MIRAGE RD. FROM RICHARDSON RD. (CITY LIMITS) TO SR 395 - PAVE EXISTING 2 LANE DIRT ROAD AND RESURFACE	$5,295
L	200157	0	AT MAIN STREET AND IOWA AVENUE AND APPROX. 300' NORTH AND 300' EAST OF EACH SIDE OF STREET-INTERSECTION IMPROVE-MENTS, CURB & GUTTER, REMOVE BILLBOARD AND TRAFFIC SIGNAL	$369
L	200201	0	IN ADELANTO, EL MIRAGE RD. FROM SR. 395 TO 1 MILE EAST TO ADELANTO RD. AND ON ADELANTO RD. FROM EL MIRAGE RD. TO 1 MILE SOUTH-AUBURN AVE. PAVE EXISTING 2 LANE RD.	$560
L	200202	0	IN CHINO - ON CHINO AVENUE FROM MONTE VISTA TO SIXTH STREET-WIDEN EXISTING 2 LANES TO 4 LANES AND INSTALL SIGNAL AT INTERSECTION OF CHINO AVE. AND MONTE VISTA	$584
L	200207	0	IN CHINO - ON PINE AVE EXTENSION FROM EL PRADO TO SR-71 - WIDEN BRIDGE FROM 2-4 LANES	$25,000
L	200209	0	IN HESPERIA - PAVE ESCONDIDO ROAD FROM RANCHERO TO CEDAR (2.0 MILES). PAVE 4 LANES OF ROADWAY 2 IN EACH DIRECTION.	$5,900
L	200210	0	IN HESPERIA - ON BEAR VALLEY RD. FROM I-15 TO MOJAVE RIVER (CITY LIMITS) APPROX. 5.5 MILES - WIDEN SOUTHSIDE FROM 2-3 LANES	$4,225
L	200211	0	IN HESPERIA ON I STREET FROM MAIN ST. TO BEAR VALLEY RD. APPROX. 4.4 MILES - WIDEN FROM 2-4 LANES	$7,700
L	200212	0	ON GREENSPOT RD. BRIDGE OVER SANTA ANA RIVER (.045)-CONSTRUCT NEW 4 LN BRIDGE AT SANTA ANA RVR- REALIGN & WIDEN 2-4 LNS ON GREENSPOT RD FROM ST PAULA-E, CITY LIMITS W/CHANNEL IMPR	$959
L	200213	0	ON 3RD ST. FROM PALM AVE. TO 5TH ST. WIDEN 3RD ST. OF E/O PALM AVE. FROM 2 TO 4 LANES AND EXTEND 3RD ST. EASTERLY TO CONNECT 5TH ST.	$280

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	200401	0	FAIRFIELD RANCH EXT.-EXTEND FAIRFIELD RANCH RD. FROM 950 FT. S/O INTERSECTION OF FFRANCH RD TO 5000 FT. PARALLEL TO SR71 TO PINE INTERSECTION-CONSTRUCT NEW 2 LANE RD. W/BIKE LANES	$6,443
L	200403	0	EVANS STREET FROM REDLANDS BLVD TO N/O UPRR TRACKS W/EAST-WEST CONNECTOR AT EVANS TO ANDERSON-4 LANES WITH LEFT TURN LANE IN CENTER AT INTERSECTIONS (FED DEMO # 1001)	$9,153
L	200404	0	HOLT BLVD CORRIDOR WIDENING FROM BENSON AVE. TO VINEYARD AVE. WIDEN ROAD FROM 4-6 LANES INCLUDING TRAFFIC SIGNAL MODIFICATIONS AND RESTRIPING	$42,320
L	200405	0	S. MILLIKEN AVE. GRADE SEPARATION - ON MILLIKEN FROM UPR TO NORTH OF MISSION BLVD. RR GRADE SEP-CONSTRUCT O/C/U/C AT RR-REALIGNMENT OF STS TO MEET O/CROSSING & INTERSTN IMPROVMTS	$16,001
L	200407	0	FLAMINGO HEIGHTS LANDERS ROAD IMPROVEMTS-SH 247 PIPES WASH NORTH TO JOHNSON VALLEY-WIDEN TO ACCOMMODATE PASSING LANES WITH TURN POCKETS	$8,500
L	200408	0	CUMBERLAND DRIVE EXTENSION - SH 18 NORTH TO CUMBERLAND DRIVE -PAVE NEW ROAD - 1 LANE IN EACH DIRECTION	$2,200
L	200409	0	CHERRY AVE. AT SCRRA RR CROSSING - WIDEN BRIDGE FROM 2-4 LANES ON CHERRY OVER RR CROSSING (FROM MERRILL TO WHITTRAM)	$8,829
L	200410	0	CHERRY AVE. WIDENING FROM WHITTRAM TO FOOTHILL BLVD. -WIDEN 2-4 LANES	$2,791
L	200414	0	ON DUNCAN ROAD FROM OASIS EAST TO BALDY MESA PAVE DIRT ROADS 1 LANE IN EACH DIRECTION INCLUDING STOP SIGNS AT RR CROSSING	$1,480
L	200417	0	EUCALYPTUS ST. FROM US395 TO AMETHYST- NEW 4 LANE RD FROM 395-MESA LINDA;WIDEN 2-4 LANES FROM MESA LINDA TO CLOVERLY AND CONSTRUCT NEW 4 LANE RD. FROM CLOVERLY TO AMETHYST	$2,800
L	200418	0	AIR EXPRESSWAY FROM NATION TRAILS HIGHWAY TO VILLAGE DRIVE - WIDEN FROM 2-4 LANES	$2,600
L	200419	0	ALABAMA STREET WIDENING - WIDEN FROM 2-4 LANES FROM NORTH CITY LIMITS TO 3,000 FT. NORTH PALMETTO	$7,200
L	200420	0	ORANGE STREET WIDENING - FROM NORTH CITY LIMITS TO RIVERVIEW DRIVE - WIDEN STREET FROM 2-4 LANES	$6,200
L	200421	0	DOWNTOWN REDLAND CORE AREA PARKING GARAGE-NEW PARKING STRUCTURE BETWEEN EUREKA AND 3RD STREET SOURTH OF STUART AND N/OR RR-APPOX. 200 SPACES (NOT A PNR)	$6,000
L	200429	0	AT SR30 AND 5TH ST. - RAMP MODIFICATION - WIDENING RAMPS FROM 1-2 LANES AND ADD TURN LANES ON 5TH ST.	$3,000
L	200430	0	ON 3RD& 5TH STS. FROM PALM AVETO TIPPECANOE AVE.- WIDEN FROM 2-4 LNS & IMPROVEMT TO SHOULDER ON VICTORIA, DEL ROSA, STERLING AVES FROM 3RD TO 6TH STS. (NO ADDTL LANES ON VICTORIA)	$27,308
L	200431	0	INLAND PACIFIC ELECTRIC TRAIL - ON OLD SP ABANDONED RR BETWEEN I-15 TO JUNIPER AVE.-CONSTRUCT CLASS 1 BIKE LANE (APPROX. 7 MILES LONG)	$2,804

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	200603	0	RIVERSIDE AVE. SOUTH OF I-10 BETWEEN I-10 AND SLOVER AVE - RAILROAD BRIDGE MODIFICATION FROM 4-8 LANES	$11,132
L	200607	0	LENA ROAD EXENSION PROJECT - EXTENSION OF LENA RD. FROM MILL ST. TO ORANGE SHOW RD.-NEW 4 LANE ROAD (CO-OP PROJECT WITH IVDA)SAFETEA-LU -#1701	$6,300
L	200608	0	CENTRAL AVENUE WIDENING PROJECT BETWEEN WATERMAN AND MT.VIEW AVE.(2 MI) -WIDEN FROM 2-4 LANES BETWEEN TIPPECANOE AND MT.VIEW, ADDING CURBS, SIDEWALKS AND LIGHTING	$5,600
L	200609	0	MT.VIEW WIDENING/EXTENSION PROJECT- FROM RIVERVIEW TO CENTRAL AVE-NEW 4 LANE RD.-WIDEN 2 BRIDGES (SANTA ANA & MISSION CRK) FROM 2-4 LNS;WIDEN S/B FROM 1-2 LNS- COULSTON TO SB AVE	$9,034
L	200610	0	TIPPECANOE WIDENING PROJECT - BETWEEN MILL AND HARDT ST. (1.4 MI)-WIDEN FROM 4-6 LANES INCLUD.MEDIAN LANDSCAPE	$2,978
L	200611	0	HELENDALE ROAD-VICTORVILLE CITY LIMITS NORTH TO SHADOW MT. ROAD - STUDY	$750
L	200618	0	PINE AVE. ENHANCEMENT - FROM EL PRADO TO EUCLID AVE. - WIDEN 2-4 LANES	$3,650
L	200619	0	GLEN HELEN PARKWAY-FROM 4 LANE TRANSITION WEST OF CAJON WASH-CMRS #382400-REALIGN AND WIDEN TO FOUR LN RD EAST TO CAJON BOULEVARD. DEMOLISH AND REPLACE THE EXISTING GLEN HELEN PARKWAY BRIDGE OVER CAJON CREEK WITH A NEW BRIDGE STRUCTURE; CONSTRUCT A GRADE	$20,700
L	200622	0	LENWOOD GRADE SEPARATION - NORTH OF WEST MAIN ST. APPROX. 400 FT. N/O TO 600 FT. S/O BNSF AND SANTA FE RR RIGHT-OF-WAY-4 TRAVEL LANE GRADE SEPARATION	$23,814
L	200630	0	ARROW ROUTE WIDENING FROM LOS ANGELES COUNTY LINE TO BENSON AVENUE - WIDEN FROM 2 TO 4 LANES 1 IN EA DIR. (1.1MILE)	$4,500
L	2002164	0	ON VALLEY BLVD. IN COLTON TO NORTH TO 10TH STREET CONNECTING TO ABANDONED RR CORRIDOR ON WEST SIDE OF COLTON AVE.-CONSTRUCT CLASS I BIKEWAY, LANDSCAPING AND LIGHTING	$565
L	2002170	0	PEPPER AVE: FOOTHILL BLVD TO HIGHLAND AVE. -- WIDEN EXISTING 2 LANES TO 6 LANES (3 EACH DIR)	$15,000
L	20010112	0	LUMP SUM-IN VARIOUS LOCATIONS WITHIN SAN BERNARDINO COUNTY - 5 GRADE SEPARATION PROJECTS - TCRP FUNDING (PROJECTS CONSISTENT WITH 40 CFR PART 93.126,127,128, EXEMPT TABLES 2 & 3)	$8,000
L	20010135	0	MONTE VISTA AVENUE @ UNION PACIFIC RAILROAD CROSSING - GRADE SEPARATION PART OF ALAMEDA CORRIDOR GRADE SEPARATION PROJECTS FUNDED WITH TCRP #55.1	$27,088
L	20010137	0	HUNTS LANE @ UNION PACIFIC RAILROAD CROSSING - GRADE SEPARATION -PART OF ALAMEDA CORRIDOR STUDY (TCRP #55.3)	$26,600
L	20010138	0	STATE STREET/UNIVERSITY AVENUE AT SAN BERNARDINO LINE - GRADE SEPARATION-(PART OF ALAMEDA CORRIDOR STUDY - TCRP #55.3	$28,944
L	20010139	0	IN ONTARIO: ON MILLIKEN AT UNION PACIFIC RAILROAD - GRADE SEPARATION - PART OF ALAMEDA CORRIDOR STUDY - TCRP #55.2	$72,783

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	20020134	0	IN RANCHO CUCAMONGA - ON ARROW RTE. FROM ETIWANDA AVENUE TO EAST STREET - WIDEN FROM 2-4 LANES (3,200 FEET)	$1,100
L	20020201	0	PACIFIC ELECTRIC INLAND EMPIRE TRAIL - PHASE 1 - HAVEN AVENUE TO 1200' EAST OF ETIWANDA AVE(3.4 MILES) CONSTRUCT CLASS 1 BIKE TRAIL&ROW ACQ.ETIWANDA DEPOT	$6,523
L	20020202	0	REDLANDS PARK ONCE PROGRAM - ON CITRUS BETWEEN 6TH AND 7TH STS. CITRUS AVE. PARKING GARAGE - APPROX. 200 SPACES-FOR DOWNTOWN REDLANDS	$2,800
L	20020301	0	IN YUCAIPA - ON OAK GLEN ROAD INTERCONNECT FROM CALIMESA TO BRYANT ST	$150
L	20040209	0	NATL TRAILS HIWAY FROM BRYMAN RD S/O MORNING GLORY ST. TO BRYMAN TO N O MARIGOLD- WIDEN EXISTG 2 LN RD FOR PASSING LNS - 1 IN EA DIRECT., INCL TRANSITIONS Y (CO W/#200106)	$2,150
L	20040210	0	SUMMIT VALLEY ROAD - FROM SH138 TO HESPERIA CITY LIMITS-PSE ONLY - FOR REALIGNMENT OF SUMMIT VALLEY RD, 2 LANES IN EACH DIRECTION	$2,325
L	20040804	0	I-40/AZ95 CONNECTOR- J ST. FROM I-40 OFFRAMPS TO W. BROADWY;NEEDLES HGWY FROM W. BROADWY TO N.K ST; N.K ST FROM NEEDLES TO AZ 95-WIDEN 2-4 LNS-INTERSCTN& CORRIDOR IMPRVT.	$3,550
L	20040826	0	GLEN HELEN PARKWAY - GRADE SEPARATION - STUDY TO DEVELOP A PLAN	$25,650
L	20040828	0	RIDESHARE PROGRAM FOR MOJAVE DESERT AIR DISTRICT	$2,050
L	20040830	0	STIP TEA RESERVES FOR BIKE/PED.;LANDSCAPE TYPE PROJECT	$14,688
L	20041201	0	ON BEAR VALLEY ROAD AND FISH HATCHERY ROAD - SIGNAL - WILL BE TYING INTO OTHER SIGNALS ON BEAR VALLEY (PART OF VICTOR VALLEY COLLEGE PARK AND RIDE PROJECT) 200111	$203
L	SBD031118	0	EDISON AVENUE RAMONA TO CENTRAL WIDEN FROM 4 LANES TO 6 LANES & REHABILITATION (SPOT WIDENING)	$2,000
L	SBD031152	0	RIVERSIDE DRIVE AT SAN ANTONIO FLOOD CONTROL CHANNEL WIDEN BRIDGE FROM 4 LANES TO 6 LANES	$1,120
L	SBD031154	0	RECHE CANYON ROAD WASHINGTON STREET TO CITY LIMITS WIDEN FROM 2 LANES TO 4 LANES	$1,801
L	SBD031157	0	MILL STREET BORDWELL TO RANCHO WIDEN ROADWAY AND BRIDGE FROM 2 LANES TO 4 LANES	$4,721
L	SBD031190	0	CHERRY AVENUE BASELINE AVENUE TO HIGHLAND AVENUE WIDENING STREET FROM 2 LANES TO 6 LANES	$4,180
L	SBD031207	0	SIERRA AVENUE AT SANTA FE RAILROAD CONSTRUCT 6 LANE UNDERCROSSING	$17,134
L	SBD031213	0	CITRUS AVENUE AT SANTA FE RAILROAD: CONSTRUCT UNDERCROSSING FOR EXISTING 4 LANES	$17,134
L	SBD031217	0	BEECH AVENUE STATE ROUTE 30 TO FOOTHILL BOULEVARD WIDEN FROM 2 LANES TO 4 LANES	$3,919

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	SBD031218	0	ALDER AVENUE BASELINE TO FOOTHILL BOULEVARD WIDEN 2 LANES TO 4 LANES W/TURN LANES	$1,500
L	SBD031220	0	SANTA ANA AVENUE MULBERRY TO LIVE OAK AVENUE WIDEN FROM 2 TO 4 LANES-INCLUDES RR CROSSING	$2,771
L	SBD031221	0	PHILADELPHIA STREET MULBERRY TO ETIWANDA AVENUE CONSTRUCT 4 LANE ROAD (1.0 MILE)	$2,776
L	SBD031225	0	LOCUST AVENUE RIVERSIDE COUNTY LINE TO JURUPA AVENUE WIDEN FROM 2 LANES TO 4 LANES	$2,500
L	SBD031227	0	JURUPA AVENUE ETIWANDA TO SIERRA AVENUE CONSTRUCT 6 LANE ROAD	$24,500
L	SBD031228	0	ETIWANDA AVENUE RIVERSIDE COUNTY LINE TO INTERSTATE 10 WIDEN FROM 4 TO 6 LANES, LEFT TURN LANES & SIGNALS (2)	$2,534
L	SBD031230	0	CHERRY AVENUE JURUPA AVENUE TO SLOVER AVENUE WIDEN FROM 2 TO 6 LANES (1.0 MILE)	$3,786
L	SBD031232	0	BANANA AVENUE JURUPA AVENUE TO SLOVER AVENUE WIDEN 2 LANES TO 4 LANES	$1,517
L	SBD031233	0	ARROW BOULEVARD ALDER TO MAPLE AVENUE WIDEN 2 LANES TO 4 LANES	$1,880
L	SBD031235	0	ARROW HIGHWAY CHERRY TO CITRUS AVENUE WIDEN 2 LANES TO 4 LANES	$1,550
L	SBD031238	0	ALDER AVENUE VALLEY TO SAN BERNARDINO AVENUE WIDEN 2 LANES TO 4 LANES	$1,460
L	SBD031239	0	BEECH AVENUE VALLEY TO ARROW BOULEVARD WIDEN FROM 2 LANES TO 4 LANES	$12,050
L	SBD031240	0	BEECH AVENUE ARROW BOULEVARD TO FOOTHILL BLVD WIDEN FROM 2 TO 4 LANES	$1,597
L	SBD031241	0	BASELINE AVENUE FROM CITRUS TO MAPLE AVENUE ADD UP TO 5' SHOULDER & WIDEN FROM 2 TO 6 LANES (SCHEDULE DELAY ALSO)	$7,550
L	SBD031244	0	CHERRY AVENUE MERRILL AVENUE TO FOOTHILL BOULEVARD CONSTRUCT RAILROAD GRADE SEPARATION & WIDEN 4-6 LANES	$10,557
L	SBD031246	0	FOOTHILL BOULEVARD CITRUS AVENUE TO MAPLE AVENUE WIDEN TO STATE STANDARDS FROM 4 TO 6 LANES	$12,000
L	SBD031248	0	FONTANA AVENUE VALLEY BOULEVARD TO MERRILL AVENUE WIDEN FROM 2-4 LANES	$6,500
L	SBD031252	0	MERRILL AVENUE CITRUS AVENUE TO ALDER AVENUE WIDEN FROM 2 LANES TO 4 LANES	$2,388
L	SBD031254	0	MERRILL AVENUE ALDER TO MAPLE AVENUE WIDEN FROM 2 TO 4 LANES	$2,100
L	SBD031258	0	RANDALL AVENUE CATAWABA AVENUE TO CITRUS AVENUE WIDEN FROM 2 TO 4 LANES	$458
L	SBD031259	0	RANDALL AVENUE ALDER AVENUE TO MAPLE AVENUE WIDEN FROM 2 TO 4 LANES	$1,700
L	SBD031260	0	SANTA ANA AVENUE SIERRA TO TAMARIND AVENUE WIDEN FROM 2 TO 4 LANES & INSTALL TRAFFIC SIGNALS (2)	$1,800
L	SBD031261	0	SAN BERNARDINO AVE FROM FONTANA AVETO ALDER AVENUE SPOT WIDENING 4 - 6 LANES (TO ACCOMMODATE TRANSITIONS ON SIDE STREETS,	$3,969
L	SBD031264	0	SAN BERNARDINO AVENUE ALDER TO LOCUST AVENUE WIDEN FROM 2 TO 4 LANES	$1,200
L	SBD031265	0	SIERRA AVENUE FROM BASELINE TO WALNUT- WIDEN FROM 4 TO 6 LANES (PROJECT SPLIT WITH #20020112)	$7,800
L	SBD031266	0	SIERRA AVENUE FOOTHILL BOULEVARD TO BASELINE AVENUE- WIDEN FROM 4 TO 6 LANES	$8,040

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	SBD031270	0	SUMMIT AVENUE BEECH AVENUE TO SIERRA AVENUE WIDEN FROM 2 TO 4 LANES	$8,000
L	SBD031271	0	FOOTHILL BOULEVARD AT EAST AVE TO HEMLOCK WIDEN 2-3 LANES ON SOUTH SIDE	$8,750
L	SBD031276	0	RANCHERO ROAD 7TH AVENUE TO DANBURY REALIGN ROAD AND WIDEN FROM 2-4 LANES AND CONSTRUCT RAILROAD UNDERCROSS-ING	$27,755
L	SBD031284	0	"I" AVENUE FROM RANCHERO RD TO MAIN ST. WIDEN FROM 2 LANES TO 4 LANES	$6,870
L	SBD031290	0	MOUNTAIN VIEW AVENUE VAN LEUVAN TO PROSPECT WIDEN TWO EXISTING BRIDGES FROM 3 LANES TO 4 LANES	$5,980
L	SBD031294	0	REDLANDS BOULEVARD AT CALIFORNIA STREET WIDEN INTERSECTION AND INSTALL TRAFFIC SIGNALS AND DRAINAGE	$6,096
L	SBD031295	0	BARTON ROAD EAST CITY LIMITS TO WEST CITY LIMITS WIDEN FROM 4 LANES TO 6 LANES SPOT WIDENINGS	$690
L	SBD031296	0	REDLANDS BOULEVARD EAST CITY LIMITS TO WEST CITY LIMITS WIDEN FROM 4 LANES TO 6 LANES	$6,850
L	SBD031315	0	MISSION BOULEVARD GROVE TO HAVEN WIDEN FORM 4 LANES TO 6 LANES ,LANDSCAPED MEDIAN AND STORM DRAIN(3.3 MI) (T21-#60) SEG.1 ARCHIBALD TO HAVEN AND SEG.2- GROVE TO ARCHIBALD	$18,770
L	SBD031323	0	ARCHIBALD AVENUE HILLSIDE ROAD TO SOUTH OF BANYON ROAD - WIDEN FROM 2 LANES TO 4 LANES	$1,070
L	SBD031333	0	CARNELIAN STREET HILLSIDE ROAD TO ALMOND STREET WIDEN FROM 2 LANES TO 4 LANES & REHABILITATION	$410
L	SBD031335	0	FOOTHILL BOULEVARD AT ARCHIBALD AVENUE INTERSECTION IMPROVEMENTS (ADD RIGHT TURN LANE)	$640
L	SBD031360	0	RIVERSIDE AVENUE SANTA ANA TO AGUA MANSA CONTINUOUS LEFT TURN LANE;WIDEN WEST SIDE(FOR LEFT TURN LANE AND ADDING CURB AND GUTTER	$2,200
L	SBD031361	0	AYALA DRIVE BASELINE ROAD TO HIGHLAND AVENUE WIDEN FROM 2 LANES TO 4 LANES	$3,036
L	SBD031395	0	7TH AVENUE BEAR VALLEY ROAD TO NISQUALLI ROAD WIDEN FROM 2 LANES TO 4 LANES	$660
L	SBD031398	0	COTTONWOOD AVENUE MARIPOSA ROAD TO BEAR VALLEY WIDEN FROM 2 LANES TO 4 LANES	$350
L	SBD031412	0	NISQUALLI RD FROM BALSAM RD TO HESPERIA RD - WIDEN FROM 2 LANES TO 4 LANES, DRAINAGE IMPROVEMENTS, AND VERTICAL REALIGNMENT	$3,750
L	SBD031417	0	LA MESA ROAD AT STATE ROUTE 395 INSTALL TRAFFIC SIGNALS	$625
L	SBD031418	0	AMETHYST ROAD PALMDALE ROAD TO HOPLAND STREET WIDEN EXISTING ROAD FROM 2 LANES TO 4 LANES	$4,000
L	SBD031419	0	EL EVADO ROAD, PALMDALE RD TO AIR BASE ROAD PALMDALE TO HOPLAND (12/98) HOPLAND TO AIR BASE (12/96), WIDEN FROM 2 TO 4 WITH LEFT TURN LANES	$4,000
L	SBD031421	0	3RD AVENUE BEAR VALLEY TO NISQUALLI ROAD WIDEN FROM 2 LANES TO 4 LANES, EXTEND ROAD WITH 4 LANES	$750
L	SBD031422	0	3RD AVENUE NISQUALLI ROAD TO GREEN TREE BOULEVARD WIDEN FROM 2 LANES TO 4 LANES	$750

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	SBD031426	0	NEEDLES HIGHWAY FROM 'N' STREET TO NEVADA STATE LINE-REALIGN, REHABILITATE, WIDEN SHOULDERS, TURN LANES, PASSING LANES, AND ACCELERATION LANES (1 LANE IN EACH DIR.) RELOCATE UTIL.	$87,788
L	SBD031505	0	VARIOUS LOCATIONS - LUMP SUMS LTF, ARTICLE 3 BICYCLE/PEDESTRIAN PROJECTS (PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126, 127,128, EXEMPT TABLES 2 & 3)	$7,900
L	SBD031523	0	AVENUE "F" AT INTERSTATE 10, SOUTH SIDE RAMPS INSTALL TRAFFIC SIGNAL	$514
L	SBD31718	0	ORANGE STREET AT SANTA ANA RIVER RECONSTRUCT ALL-WEATHER CROSSING OF RIVER, WIDEN FROM 2 TO 4 LANES	$5,180
L	SBD31785	0	EUCALYPTUS AVENUE PEYTON DRIVE TO GALLOPING HILLS RD. CONSTRUCT 2 LANE ROAD	$6,020
L	SBD31876	0	CALIFORNIA STREET BARTON ROAD TO REDLANDS BOULEVARD WIDEN FROM 2 TO 6 LANES	$630
L	SBD31886	0	CUNNINGHAM STREET FROM NINTH STREET TO BASELINE - WIDEN FROM 2 TO 4 LANES	$350
L	SBD31903	0	FOOTHILL BOULEVARD (STATE ROUTE 66) AT FOURTH MODIFY SIGNALS, CHANNELIZE TRAFFIC SIGNAL, INTERSECTION IMPROVEMENTS/ REALIGN INTERSECTION	$1,137
L	SBD31905	0	MT. VERNON AVENUE BRIDGE AT BNSF REPLACE GRADE SEPARATION,	$51,519
L	SBD41207	0	GROVE AVE, 8TH TO SAN BERNARDINO RD WIDEN FROM 2-4 LANES, UPGRADE SIGNALS AND DRAINAGE.	$2,200
L	SBD41208	0	GROVE AVE, SAN BERNARDINO RD TO FOOTHILL BLVD. WIDEN FROM 2-4 LANES AND UPGRADE SIGNALS (700 FT.)	$760
L	SBD41213	0	APPLE VALLEY ROAD EXTENSION FROM NORTHERN TERMINUS OF APPLE VALLEY RD. TO FALCHION RD. CONSTRUCT 4 LANE NEW ROAD	$1,200
L	SBD41239	0	WOODVIEW AVE/PIPELINE TO PEYTON DR. WOODVIEW AVE. FROM 30FT.-52FT WIDEN FROM 2 TO 4 LANES & MARKED BIKE LANES IN EACH DIR, INCLUDES CURB, GUTTER & SIDEWALK IMPROVEMENTS	$2,150
L	SBD41241	0	PEYTON DRIVE/WOODVIEW ROAD TO SOQUEL CANYON PARKWAY CONSTRUCT NEW 2 LANE_ROAD INCLUDED ARE BICYCLE LANES MARKED IN EACH DIRECTION	$4,575
L	SBD41242	0	PEYTON DRIVEFROM GRAND AVE TO EUCALYPTUS;WIDEN PEYTON FROM 2 TO 6 LNS W/ MARKED BIKE LNS IN EA.DIRECT;AND FROM EUCALYPTUS TO 142 WIDEN 2-4 LANES W/MARKED BIKE LNS IN EA DIRECT	$15,840
L	SBD41289	0	RANCHO LAS FLORES PARKWAY -NO LANES CURRENTLY EXIST. DEVELOPER TO CONST RUCT HIGHWY 138 TO RANCHERO RD. 2 LANES IN EACH DIRECTION.	$10,000
L	SBD41316	0	MT. VIEW AVE. RAILWAY GRADE CROSSING, 1500 FT. NORTH OF I-10 WIDEN RAILWAY GRADE CROSSING FROM 1 LANE NORTH & SOUTH TO 2 LANES NORTH & SOUTH & UPGRADE GATES	$150
L	SBD41317	0	MT. VIEW AVE. BRIDGE AT MISSION CREEK CHANNEL WIDEN ROADWAY & SHOULDER WORK AND EXISTING BRIDGE AT MT. VIEW -1 LN. NO. & SO. TO 2 LNS N/S & LFT_TURNS	$720
L	SBD41427	0	AMBOY ROAD - LEAR AVE TO ADOBE RD. (5.5 MILES) CONSTRUCT NEW 2 LANE ROAD (ONE LANE IN EACH DIRECTION)	$550
L	SBD41428	0	TWO MILE ROAD - SUNRISE AVE. TO LEAR AVE. (2.5 MILES) WIDEN ROAD FROM 2-4 LANES	$400

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	SBD41438	0	CORNER: NWC OF 'A' ST. AND 3RD AVE. 52 STALL PARKING LOT FOR METROLINK	$345
L	SBD55011	0	YUCCA LOMA RD. FROM APPLE VALLEY RD. TO NAVAJO RD. WIDEN EXISTING 2 LANE RD. TO 4 LANE RD. (2 LANES IN EACH DIRECTION) (3 MILES)	$2,150
L	SBD55012	0	YUCCA LOMA RD. AT SR 18 CONNECTION NEW CONNECTION - CONNECTING YUCCA LOMA RD. AND SR 18 - NEW INTER- SECTION	$2,772
L	SBD55025	0	MAIN STREET FROM ESCONDIDO TO 11TH AVE - WIDEN AND RECONSTRUCT FROM 4 - 6 LANES, INCLUDING WIDENING OF BRIDGE OVER CALIFORNIA AQUEDUCT (2.75 MILES)	$14,500
L	SBD55028	0	RANCHERO RD. FROM DANBURY TO ARROWHEAD LAKE RD. - WIDEN FROM 2 TO 4 LANES (9.50 MILES)	$11,000
L	SBD55030	0	RANCHERO RD. FROM I-15 TO 7TH ST. - WIDEN FROM 2 TO 4 LANES (5.50 MILES)	$11,000
L	SBD55031	0	ALABAMA STREET FROM 3RD STREET TO SOUTH CITY LIMITS - WIDEN FROM 2 TO 4 LANES (0.25 MILES)	$1,270
L	SBD55033	0	BOULDER AVE. FROM 5TH ST. TO SOUTH CITY LIMITS - WIDEN FROM 2-4 LANES (0.60 MILES)	$330
L	SBD55034	0	MISSION BLVD. FROM LA COUNTY LINE TO BENSON AVE (2.2 MILES) RECONSTRUCT RDWAY, LANDSCAPE MEDIAN ISLANDS, STORM DRAINS, UPGRADED SIGNALS (NO ADDTL LANES) (T21-#60)	$14,130
L	SBD58044	0	CITRUS AVENUE AUBURN CT. TO WABASH AVENUE WIDEN FROM 2 TO 4 LANES	$525
L	SBD59004	0	FRANCIS ST. FROM BON VIEW AVE TO GROVE WIDENING 2 TO 4 LANES (STORM DRAIN FROM BON VIEW TO PARCO)	$12,631
L	SBD59006	0	GROVE AVENUE FROM STATE ST. TO 350' NORTH OF HOLT BLVD. WIDENING FROM 4 TO 6 LANES WIDENING RAILROAD BRIDGE ALSO (1,450'),LANDSCAPE RESTORATION, LEFT TURN LANES AT HOLT	$9,440
L	SBD59012	0	C HURCH ST. FROM CLARK STREET TO COLTON AVENUE WIDEN FROM 2-4 LANES (0.6 MILES)	$1,665
L	SBD59016	0	CALIFORNIA STREET FROM LUGONIA TO SAN BERNARDINO AVENUE. WIDEN FROM 2 LANES TO 6 LANES (3 IN EACH DIRECTION) WITH MEDIAN ISLAND (1/2 MILE)	$850
L	SBD59019	0	40TH ST. FROM ACRE LANE TO ELECTRIC AVENUE; ACQUIRE ROW AND WIDEN ROAD FROM 2 TO 4 LANES (1,200 FT.)	$3,395
L	SBD59021	0	STATE STREET FROM 16TH STREET TO FOOTHILL BLVD.; EXTEND AND CONSTRUCT (2) LANES OF ROADWAY (1.5 MILES) TO CONNECT STATE STREET TO RANCHO AVENUE (NEW ROAD)4 PHASES TOTAL IN PROJECT	$7,889
L	SBD59023	0	CAMPUS PKWY-PEPPER/LINDEN DRIVE EXTENSION FROM KENDALL TO I-215 FWY - CONSTRUCT (4) LANE ROADWAY - BETWEEN KEND-ALL DRIVE AND I-215, PARTIAL DIAMOND INTERCHANGE FOR N/B (2,000 FT)	$22,000
L	SBD59027	0	FT IRWIN RD: I-15 TO FT IRWIN BOUNDARY-REHAB EXISTING RDWY(22.46 MILES), WIDEN SHOULDERS,RELOCATE UTILITIES,ADD LEFT/ RIGHT TURN LANES,CONSTRUCT 5 PASSING LANES, 1 ACCELERATION LANE	$23,097
L	SBD88086	0	EUCLID AVENUE FROM D ST TO FOOTHILL BOULEVARD - STORM DRAIN EXTENSION	$1,414

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	SBD88140	0	NATIONAL TRAILS ROAD BETWEEN INTERSTATE 15 & AIRBASE RD. WIDEN FROM 2 LANES TO 4 LANES	$2,600
L	SBD94118	0	ARDEN AVENUE PACIFIC SOUTH TO SAND CREEK CONSTRUCT 2 LANE ROAD & BRIDGE OVER SAND CREEK	$800
L	SBD94173	0	STATE ROUTE 62 LEE DRIVE TO LUPINE DRIVE WIDEN FROM 4 TO 5 LANES FOR CONTINUOUS LEFT TURN LANE	$300
L	SBD94174	0	STATE ROUTE 62 MESQUITE SPRINGS RD/DESERT KNOLL WIDEN FROM 4 TO 5 LANES FOR CONINUOUS LEFT TURN LANE	$323
L	SBD94175	0	RTE 62 FROM DESERT KNOLL TO MOJAVE TO MOJAVE ROAD WIDEN TO CREATE LT. TURN POCKETS	$137
L	SBD94177	0	STATE ROUTE 62 AT LARREA AVENUE & HATCH ROAD RECONFIGURE AND SIGNALIZATION (NO SYNCHRONIZATION)	$196
L	SBD97123	0	RIVERSIDE AVENUE AT SIERRA AVENUE -ROADWAY REALIGNMENT (APPROX. 800')NO ADDITION LANES- TRAFFIC SIGNALS, LIGHTS, AND STREET IMPROVEMENTS	$2,300
L	SBD97147	0	GREEN TREE BLVD AT AT&SF RAILROAD CONSTRUCT 4-LANE BR & CONNECT TO HESPERIA & RIDGECREST RD	$14,583
L	SBDLS08	0	HBRR LOCAL BRIDGE LUMP SUM FOR 2006 - (PROJETS ARE CONSISTENT WITH 40 CFR PART 93.126.127.128, EXEMPT TABLES 2 & 3)	$47,731
T	200084	0	TRANSIT - ADMINISTRATION EQUIPMENT	$2
T	200086	0	BUS SYSTEM - PASSENGER FACILITIES. PURCHASE BUS STOP SIGNS AND SHELTERS PROVIDING ADA ACCESSIBILITY;04-15 BS;05-15; 06-15;07-15	$319
T	200088	0	TRANSIT SERVICE EQUIPMENT - PURCHASE MAINTENANCE EQUIPMENT FOR EAST AND WEST VALLEY FACILITIES.	$1,203
T	200416	0	SCLA RAIL SERVICE FROM AIR EXPRESSWAY APPROX. 5 MILES N0 TO COLUSA RD. BETWEEN PHANTOM EAST & MOJAVE RIVER-PUT IN NEW RAIL LINE FROM BNSF TO SCLA.(FOR FREIGHT)	$38,000
T	200423	0	PARATRANSIT VEHICLES - REPLACEMENT - GAS/DIESEL; 04-3;05-2;06-4;08-3,09-3	$1,198
T	200424	0	PURCHASE REPLACEMENT DIESEL BUSES - 06-1;07-4	$1,416
T	200425	0	VEHICLE REPLACEMENT - PARATRANSIT VEHICLES - 2 -18 PASSENGER ACCESSIBLE SMALL BUSES	$147
T	200426	0	PARATRANSIT VEHICLES - REPLACING 7 PASSENGER GAS BUS 06-1;08-2;09-1	$190
T	200427	0	CAPITAL COST OF CONTRACTING FOR OPERATIONS	$7,488
T	200441	0	FACILITIES: EASTERN AREA MAINTENANCE: THIS IS PART OF PROJECT FUNDED BY LACMTA, OCTA & RCTC	$17,714
T	200450	0	RIALTO METROLINK STATION - INCREASE PARKING SPACES FROM 225-775	$3,000

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	200625	0	E STREET TRANSIT CORRIDOR- FROM SAN BERNARDINO TO LOMA LINDA	$252,871
T	981104	0	TRANSIT - SECURITY	$890
T	981111	0	TRANSIT - ENHANCEMENTS: 1% TRANSIT ENHANCEMENTS TO INCREASE ACCESSIBILITY TO BUS STOPS	$619
T	981114	0	TRANSIT - SECURITY CAPITALIZATION OF SECURITY COSTS	$734
T	981118	0	BUS SYSTEM - PASSENGER FACILITIES: DESIGN AND BUILDING OF ONTARIO TRANSCENTER	$690
T	981122	0	CAPITALIZATION OF PREVENTIVE MAINT	$25,599
T	990602	0	METROLINK CAPITAL MAINTENANCE (INCLUDES OCTA PAYBACK IS 100% IN 5309) FOR 2005/06,2006/07, 2007/08	$16,120
T	2002172	0	MID VALLEY FACILITY - NEW MAINTENANCE & ADMINISTRATION FACILITY LOCATED IN RANCHO CUCAMONGA (ETIWANDA & ARROW)	$21,941
T	20010120	0	TRANSIT SERVICE EQUIPMENT - PURCHASE OF VARIOUS MAINTENANCE EQUIPMENT (ON-GOING PROJECT)	$31
T	20010127	0	TRANSIT OPERATING EQUIPMENT - PURCHASE MOBILE DISPLAY EQUIPMENT, RADIOS, FAREBOX PARTS & TOOLS, DISPATCH PHONE MONITOR	$223
T	20020140	0	PARATRANSIT - VEHICLES 17 PASSENGER REPLACEMENT - ALT. FUEL; 05-01 - REPLACEMENT YEAR 2005-FY 2001 VEHICLE	$663
T	20020801	0	METROLINK ROLLING STOCK - SANBAG'S SHARE OF PURCHASE OF METROLINK CARS & LOCOM UP TO 47 CARS/CABS AND IN FUTURE YEARS UP TO 22 CARS/CABS & UP TO 8 LOCOM (CO-OP LA0C8231, RIV010214)	$22,584
T	20020802	0	METROLINK ADD'L PARKING STRUCTURE - CONSTRUCT 5 LEVEL PARKING STRUCTURE TO SERVE EXISTING METROLINK STATION AT SANTA FE DEPOT LOCATION	$11,064
T	20020804	0	MAJOR INVESTMENT STUDY FOR BUS RAPID TRANSIT CORRIDOR ALONG IN SAN BERNARDINO - FROM SAN BERNARDINO TO LOMA LINDA	$2,125
T	20020806	0	TRANSIT - FACILITIES - IMPROVEMENT/UPKEEP OF EXISTING FACILITIES	$2,203
T	20020810	0	REPLACEMENT-PARATRANSIT - 9 PASSENGER VEHICLES - GAS - 04-1;05-1;06-1;08-1;09-1	$205
T	20040211	0	REPLACEMENT PARATRANSIT VEHICLES REPLACING PARATRANSIT VEHICLES ON OMNITRANS ACCESS FLEET06-10;07-25;08-50	$5,153
T	20040701	0	PARATRANSIT - VEHICLES 22 PASSENGER REPLACEMENT - GAS 06-1;08-2;09-1	$533
T	20040808	0	ITS SOFTWARE AND HARDWARE	$900
T	20040811	0	PARATRANSIT VEHICLE REPLACEMENT - 16 PASSENGER - GAS-07-6;08-4	$709
T	20040812	0	VEHICLE REPLACEMENT - 28 PASSENGER DEVIATED FIXED ROUTE; 07-2	$376
T	20040813	0	REPLACEMENT - ALT. FUEL 33 PASSENGER DEVIATED FIXED ROUTE VEHICLES; 06-1; 08-1	$609
T	20040815	0	ADMINISTRATION EQUIPMENT - COMPUTER HARDWARE AND OFFICE FURNISHINGS	$30
T	20040817	0	VEHICLE OVERHAULS - TO REBUILD ENGINES, TRANSMISSIONS, ETC. ON AGING FLEET	$90

SAN BERNARDINO COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	20040825	0	UPLAND METROLINK STATION - ADDITIONAL PARKING	$5,500
T	20040829	0	FUELING FACILITIES - TO SERVE OMNITRANS SERVICE AREA - REHABILITATION AND MAINTENANCE OF ALTERNATIVE FUELING FACILITIES	$383
T	20041303	0	BUS SYSTEM REPLACEMENT 35' ALT FUEL	$1,290
T	R589TA	0	INTERSTATE - LOS ANGELES/CHICAGO AT EL GARCES STATION MULTIMODAL - STATION - FACILITY	$8,090
T	SBD31037	0	BUS SYSTEM - OPERATING ASSISTANCE	$11,291
T	SBD31055	0	TRANSIT ADMINISTRATION EQUIPMENT PURCHASE COMPUTER HARDWARE & SOFTWARE FOR MIS	$5,427
T	SBD31073	0	FACILITIES IMPROVEMENTS - EQUIPMENT AND FURNISHINGS - EAST/WEST VALLEY FACILITY PURCHASE OFFICE EQUIPMENT	$3,106
T	SBD31084	0	BUS SYSTEM-SERVICE VEHICLES, PURCHASE SEVERAL EXPANSION SERVICE VEHICLES	$2,168
T	SBD31581	0	BUS SYSTEM - OPERATING ASSISTANCE	$29,231
T	SBD31612	0	BUS SYSTEM - OPERATING ASSISTANCE	$1,139
T	SBD41055	0	BUS SYSTEM - OPERATING ASSISTANCE	$9,595
T	SBD41064	0	BUS SYSTEM - BUS SHELTERS ON VARIOUS ROUTES-REPLACING MISSING AND/OR DAMAGED BUS STOPS, PURCHASE AND REPAIR SHELTERS, BENCHES, ETC.	$83
T	SBD41073	0	CAPITAL - PURCHASE OF LAND AND ARCHITECTURAL SERVICES & CONSTRUCT FOR ADMINISTRATIVE, MAINTENANCE, & OPERATIONS FACILITY (PH I & II)	$15,436
T	SBD41109	0	METROLINK OPERATING ASSISTANCE SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (METROLINK)	$38,999
T	SBD41114	0	PARATRANSIT - VEHICLE REPLACEMENT ALT. FUEL, 04-3, 07-5, 09-6	$1,509
T	SBD41117	0	BUS SYSTEM - PURCHASE SERVICE VEHICLES 04-2; 06-2;07-3	$258
T	SBD44003	0	PARATRANSIT VEHICLE REPLACEMENT	$65
T	SBD44006	0	TRANSIT ADMINISTRATION EQUIPMENT OFFICE EQUIPMENT	$128
T	SBD90105	0	BUS SYSTEM-BUSES BUS REPLACEMENTS ALT. FUEL, 01-25, 02-16;06-22;08-11	$16,149

* S=State Highway, L=Local Highway, T=Transit

VENTURA COUNTY RTIP PROJECTS

VENTURA COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	VEN001004	0	SOUNDWALL PROGRAM ON STATE HWYS THROUGHOUT VENTURA COUNTY - LUMP SUM (PROJECTS ARE CONSISTENT WIH 40 CFR PART 93.126,127,128, EXEMPT TABLES 2 & 3)	$8,812
S	VEN040401	0	IN OXNARD AT RICE AVE. RAILROAD GRADE SEPARATION	$12,327
S	VEN54187	0	2% FOR PLANNING, PROGRAMMING, & MONITORING	$1,640
S	VEN031225	23	IN FILLMORE ROUTE 23 AT RIVER STREET INSTALL TRAFFIC SIGNAL	$200
S	VEN051213	23	IN MOORPARK RTE 23 MOORPARK AVE FROM THIRD ST TO HIGH ST WIDEN FROM 2 LANES TO 1 LANE NB AND 2 LANES SB. REALIGN FIRST ST/POINDEXTER INTERSECTION AND UPGRADE RAIL CROSSING	$1,895
S	343	101	IN OXNARD AT RICE AVE (SANTA CLARA) RECONSTRUCT INTERCHANGE (T21-#664) (SAFETEA-LU #1565)	$93,541
S	VEN010202	101	RECONFIGURE N/B CALIFORNIA ST OFFRAMP (RECONFIGURE RAMP TO TERMINATE AT OAKS ST INSTEAD OF THE CURRENT CALIFORNIA ST LOCATION)	$23,970
S	VEN011205	101	IN THOUSAND OAKS - IMPRVTS FROM 101/23 IC TO MOORPARK ROAD: EXTEND AUX LANES L.A. CNTY LINE / HAMPSHIRE, NEW NB LANE HAMPSHIRE/23; MEDIAN IMPR; SOUNDWALL	$66,660
S	VEN031226	101	IN CAMARILLO ROUTE 101 AT PLEASANT VALLEY ROAD IMPROVE INTERSECTION WITH SOUTHBOUND RAMPS - WIDEN ONRAMP EN-TRANCE FROM 1 TO 2 LANES AND ADD TURN LANES	$1,053
S	VEN050404	101	AT CENTRAL AVENUE - LANDSCAPING ENHANCEMENTS	$600
S	VEN051006	101	IN OXNARD AT DEL NORTE BOULEVARD - IMPROVE INTERCHANGE	$55,476
S	VEN051210	101	IN CAMARILLO RECONFIGURE CENTRAL AVENUE / ROUTE 101 INTERCHANGE	$37,861
S	VEN051212	101	SAFETEA-LU HIGH PRIORITY PROJECT REPAYMENT OF FUNDS ADVANCED BY CITY OF OXNARD FOR RICE/101 INTERCHANGE RECONFIGU-RATION	$1,141
S	VEN053402	101	IN OXNARD LANDSCAPING/IRRIGATION ENHANCEMENTS SOUTH SIDE OF ROUTE 101 AT DEL NORTE	$704
S	VEN056406	101	ROUTE 101 AT WENDY INTERCHANGE IMPROVEMENTS INCLUDING WENDY DRIV BRIDGE WIDENING ACROSS ROUTE 101; NB AND SB RAMP IMPROVEMENTS; INTERSECTION IMPROVEMENTS; SIGNAL MOD	$12,647
S	VEN070201	101	NEAR LA CONCHITA FROM MOBIL PIER RD TO SANTA BARBARA COUNTY LINE ADD HOV LANES IN EACH DIRECTION PLUS ITS FEATURES AND CLOSE 3 MEDIAN OPENINGS; ADD PEDESTRIAN UC IN LA CONCHITA	$76,600
S	VEN54020	101	IN CAMARILLO CONSTRUCT AIRPORT NORTH (SPRINGVILLE) INTERCHANGE (CONNECTING FUTURE EXTENSIONS OF VERDULERA ST & PONDEROSA DR) INTERSECTING US 101	$40,000
S	12020	118	IN MOORPARK LOS ANGELES AVE AT SHASTA AVE AND MAUREEN LN INSTALL SIGNALS AT SHASTA AVE AND WIDEN FROM 4 TO 6 LANES BETWEEN MAUREEN AND LETA YANCY	$504
S	1238J	118	IN SIMI VALLEY WIDEN RT 118 FROM TAPO CYN TO LA COUNTY LINE (WIDEN FROM 6 TO 8 LNS & FROM 8 TO 10 LNS) & CONSTRUCT SOUNDWALLS & ITS ITEMS (ITS ITEMS RT 23 / LA CNTY LINE)	$98,143

VENTURA COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
S	6566	118	NEAR SIMI VALLEY AT ALAMOS CYN RD ADD RAMPS	$2,992
S	VEN010201	118	IN SIMI VALLEY AT ROCKY PEAK RD CONSTRUCT W/B ONE LANE ONRAMP & E/B ONE LANE OFFRAMP TO PROVIDE FULL DIAMOND INTER-CHANGE	$8,301
S	VEN011208	118	ADD ONE MIXED FLOW LANE IN EACH DIRECTION FROM TAPO CANYON ROAD TO NEW LOS ANGELES AVENUE (FROM 6 TO 8). WIDEN THE SR23/118 CONNECTORS FROM 2 TO 3 LANES.	$433,108
S	VEN041004	118	IN VENTURA COUNTY WILDLIFE CORRIDOR ENHANCEMENTS ROUTE 118	$726
S	VEN051003	118	IN SIMI VALLEY LANDSCAPE ENHANCEMENTS FROM WESTERN CITY LIMIT TO EASTERN CITY LIMIT	$1,400
S	VEN34089	118	IN MOORPARK L.A. AVE FROM ROUTE 23 (MOORPARK AVE) TO E/O SPRING CONSTRUCT SIDEWALKS, REALIGN ROADWAY AND WIDEN FROM 4 TO 6 LANES	$1,158
S	VEN031224	126	IN FILLMORE AT CENTRAL AVENUE IMPROVE INTERSECTION INCLUDING LANE RESTRIPING, REVISED CURBS AND DRAINS	$678
S	VEN990340	126	IN VENTURA ENHANCED LANDSCAPING RT 126 INTERCHANGES AT VICTORIA, KIMBALL, & WELLS (RT 118)	$925
S	VEN990316	150	ROUTE 150 @ SAN ANTONIO CREEK BRIDGE WIDEN TO ACCOMMODATE PEDESTRIAN/EQUESTRIAN/BICYCLE	$516
S	VENLS08	999	LUMP SUM AT VARIOUS LOCATIONS IN VENTURA COUNTY - MANDATE PROJECTS (EA 4S140 AND 4S150)	$72
L	VEN010203	0	OJAI VALLEY BIKE TRAIL EXTENSION/FULTON ST EXTENSION	$611
L	VEN011202	0	HUENEME RD FROM OXNARD CITY LIMITS TO RICE RD - WIDEN FROM 2 TO 4 LANES	$6,953
L	VEN011209	0	CONSTRUCT BIKEWAY ADJACENT TO RT 101 (SOUTH SIDE) FROM RANCHO RD TO WILLOW LN (TEA21 #221)	$1,014
L	VEN020402	0	VIDEO MONITORING CAMERAS AND OTHER ITS IMPROVEMENTS IN VENTURA COUNTY INCLUDING SMARTCARD & PARATRANSIT DIS-PATCH SYSTEM UPGRADE	$4,106
L	VEN031209	0	CONSTRUCT BIKE LANES CITYWIDE AS SPECIFIED IN BICYCLE FACILITIES MASTER PLAN DATED 5/05	$290
L	VEN031212	0	EXPAND TRAFFIC SIGNAL COORDINATION SYSTEM	$450
L	VEN031215	0	GREEN ALLEY AND ADJACENT PARKING LOT PEDESTRIAN IMPROVEMENTS	$401
L	VEN031216	0	INSTALL NEW SIGNALS AT INTERSECTION OF PALM AVENUE AND ROUTE 126 EB OFF-RAMP, AND TENTH STREET AND ROUTE 126 EB OFF-RAMP	$558
L	VEN031220	0	SANTA CLARA AVENUE CLASS II BIKE LANES FROM FRIEDRICH TO CENTRAL (1.6 MILES)	$950
L	VEN031227	0	WIDEN CENTRAL AVENUE FROM 2 TO 4 LANES (PLUS BIKE LANES) FROM ROUTE 101 NB RAMPS TO CITY LIMIT (0.4 MILES) PLUS SIG-NALS @ RTE 101 RAMPS.	$1,100
L	VEN031228	0	VICTORIA AVENUE/OLIVAS PARK DRIVE INTERSECTION - ADD TURN LANES	$158
L	VEN031229	0	ROUTE 126 BIKE PATH - PHASE II BIKE PATH (CLASS I) CROSSING THE HARMON BARRANCA	$1,082

VENTURA COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	VEN040501	0	NEAR CAMARILLO LEWIS RD WIDEN FROM 2 TO 4 LANES PLUS BIKE LANES BETWEEN RT 101 & HUENEME RD, & PROVIDE SIGNAL IMPROVEMENTS - CON PHASE (PE & ROW IN 07-VEN54122) - INCL FINANCE COST	$52,966
L	VEN040502	0	SANTA ROSA ROAD FROM UPLAND ROAD TO WOODCREEK ROAD WIDEN FROM TWO TO FOUR LANES AND ADD BIKE LANES	$1,541
L	VEN041001	0	SANTA ROSA ROAD / HILL CANYON ROAD - INTERSECTION IMPROVEMENTS INCLUDING ACCELERATION/DECELERATION LANES ON SANTA ROSA ROAD	$395
L	VEN050402	0	ADOLFO ROAD EASTBOUND AT SANTA ROSA ROAD - ADD DUAL LEFT AND RIGHT TURN LANES	$500
L	VEN050403	0	CALLEGUAS BIKE PATH - CONSTRUCT CLASS I BIKE PATH FOR 0.7 MILES FROM ADOLFO ROAD TO THE ROUTE 101 FREEWAY, WITH CONNECTION TO NEW TRAIL AT VILLAGE AT THE PARK (PHASE II)	$1,500
L	VEN051002	0	OLSON ROAD WIDENING FROM FOUR TO SIX LANES FROM PRESIDENTIAL DRIVE TO SIMI VALLEY CITY LIMIT, 2700 FEET	$2,156
L	VEN051004	0	RECONSTRUCT AND DEEP LIFT ASPHALT ON VARIOUS ROADS IN VENTURA COUNTY WITHIN CONGRESSIONAL DISTRICT 24	$6,000
L	VEN051201	0	WEST LOS ANGELES AVENUE FROM WEST CITY LIMIT TO EASY STREET CLASS II BIKE LANES	$1,621
L	VEN051206	0	CRUZERO STREET FROM LOMA DR TO EL CENTRO ST, CONSTRUCT SIDEWALK, CURB, AND GUTTER	$144
L	VEN051211	0	LAS POSAS ROAD FROM VENTURA BLVD TO PLEASANT VALLEY ROAD WIDEN FROM 2 TO 6 LANES	$4,417
L	VEN051401	0	ROUTE 126 AND SANTA PAULA BRANCH RAILROAD AT POLE CREEK - CLASS I BIKE PATH UNDERCROSSING 0.2 MILES IN LENGTH	$1,330
L	VEN053401	0	INSTALL INTERCONNECT CABLE TO CONNECT SIGNALIZED INTERSECTIONS AT VARIOUS LOCATIONS THROUGHOUT THE CITY	$500
L	VEN053403	0	EAST VENTURA BOULEVARD FROM NYLAND AVENUE TO ALMOND DRIVE - LANDSCAPE ENHANCEMENT, PEDESTRIAN AND BICYCLE FACILITIES	$500
L	VEN054401	0	HISTORIC PRESERVATION OF THE MILL BUILDING, AND SANTA PAULA DEPOT, HISTORIC TRANSPORTATION STRUCTURES IN SANTA CLARA RIVER VALLEY	$2,566
L	VEN054605	0	CONEJO CREEK PARK BIKE PATH - CLASS I BIKE PATH FOR 0.5 MILES IN CONEJO CREEK PARK FROM ROUTE 23 TO JANSS ROAD	$300
L	VEN055402	0	SIGNAL SYNCRONIZATION AT VARIOUS LOCATIONS CITYWIDE	$1,135
L	VEN055407	0	ERRINGER ROAD NB AT COCHRAN - ADD RIGHT-TURN LANE	$588
L	VEN055503	0	ERRINGER ROAD FROM ROYAL TO FITZGERALD - REALIGN ROAD, AND ADD BIKE LANES AND LANDSCAPED PARKWAY	$1,600
L	VEN056403	0	LYNN ROAD FROM ROUTE 101 TO AVENIDA DE LAS FLORES SIGNAL SYNCHRONIZATION IMPROVEMENT (PHASE III)	$460
L	VEN056404	0	BORCHARD ROAD FROM LOS VIENTOS TO MARIANO - LANDSCAPED MEDIAN WITH SAFETY RAILINGS, WILDLIFE CROSSING FEATURES, AND RUN-OFF CONTAINMENT DRAINAGE SYSTEM	$903
L	VEN056407	0	HILLCREST DRIVE FROM TELLER ROAD TO CONEJO BLVD - CLASS II BIKE LANES	$284

VENTURA COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	VEN058401	0	CENTRAL AVENUE AT ROSE AVENUE INTERSECTION IMPROVEMENTS INCLUDING ADDITIONAL TURN LANES AND DRAINAGE IMPROVEMENTS	$565
L	VEN058402	0	KANAN ROAD AT DOUBLETREE ROAD LEFT TURN LANE EXTENSIONS	$113
L	VEN070101	0	PHASE 2 - SANTA PAULA BRANCH ROW - PIRU CREEK TO RTE 126, CONSTRUCT CLASS I BIKE PATH AND PEDESTRIAN PATH WITH GRADING ON ENTIRE ROW (SPLIT FROM VEN990310)	$2,266
L	VEN34094	0	IN OXNARD HUENEME RD SAVIERS TO INDUSTRIAL WIDEN AND CONSTRUCT FROM 2 TO 4 LANES	$1,848
L	VEN34095	0	IN OXNARD COLONIA RD/CAMINO DEL SOL RT 1 TO ENTRADA DR CONSTRUCT 4 LANES	$10,269
L	VEN34303	0	IN THOUSAND OAKS BORCHARD/MICHAEL WIDEN TO ADD TURN LANES & IMPROVE INTERSECTION	$294
L	VEN34304	0	IN THOUSAND OAKS OLD CONEJO RD FROM REINO TO WENDY WIDEN FROM 2 TO 4 LANES	$615
L	VEN34305	0	IN THOUSAND OAKS HILLCREST FROM RANCHO CONEJO TO CAMINO DOS RIOS WIDEN FROM 2 TO 4 LANES	$779
L	VEN54019	0	IN CAMARILLO ADOLFO RD EXTENSION EXTEND ROAD EASTERLY TO CAMARILLO SPRINGS RD/US 101 (TWO-LANE UNDIVIDED ROAD)	$11,358
L	VEN54032	0	LUM SUM - REHABILITATION & RECONSTRUCTION PROJECTS (PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126,127,128, EXEMPT TABLES 2 & 3)	$11,979
L	VEN54051	0	IN SIMI VALLEY ARROYO SIMI BIKE TRAIL FROM END OF EXISTING TRAIL TO CORRIGANVILLE PARK. CONSTRUCT BIKE PATH AND LANES	$460
L	VEN54164	0	BICYCLE & PEDESTRIAN TRAIL EXTENSION: FOX CYN BARRANCA FROM RT 150 TO OJAI VALLEY TRAIL	$182
L	VEN54168	0	FACILITY INCL BIKEWAY/WALKWAY FROM SANTA PAULA CREEK TO PECK RD FENCING, LANDSCAPING, BRIDGE & DRAINAGE, PUBLIC ACCESS POINTS/ SAFETY ITEMS	$4,094
L	VEN93017	0	REGIONAL RIDESHARE PROGRAM	$2,215
L	VEN990305	0	CONSTRUCT PONDEROSA EXTENSION FROM EARL JOSEPH TO VENTURA BL & VENTURA BLVD EXTENSION FROM PONDEROSA TO EAST OF CENTRAL AVE INCLUDING BIKE LANES	$8,614
L	VEN990306	0	CAWELTI ROAD LAS POSAS ROAD / LEWIS ROAD ADD BIKE LANES	$154
L	VEN990310	0	PIRU/RANCHO CAMULOS CONSTRUCT CLASS I BIKE PATH AND ADJACENT PEDESTRIAN PATH, FENCING RE-LAY TRACK, INSTALL PLATFORM AT RANCHO CAMULOS	$6,772
L	VEN990317	0	OXNARD BLVD 5TH/VINEYARD & ON 5TH ST (RT 34) OXNARD BLVD/ROSE AVE CONSTRUCT NEW BICYCLE & PEDESTRIAN FACILITIES	$4,589
L	VEN990319	0	CALIFORNIA ST BRIDGE OVER RT 101 PEDESTRIAN ENHANCEMENTS	$1,284
L	VEN990336	0	RANCHO CAMULOS ROADSIDE REST STOP CONSTRUCT REST STOP, INCLUDING REHAB OF ADOBE BLDG, RE-ESTABLISH ENTRANCE TO SITE, BUILD PARKING, RESTROOMS	$1,430
L	VEN990341	0	SURFERS' POINT BIKE PATH RESTORATION RESTORE 2 KM BIKEWAY SEGMENT DESTROYED BY STORMS ENVIRONMENTAL	$4,582

VENTURA COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
L	VEN991207	0	FIGUEROA ST UNDERPASS AT RT 101 - BICYCLE & PEDESTRIAN ENHANCEMENTS, AESTHETIC IMPROVEMENTS	$513
L	VEN991218	0	PLEASANT VALLEY RD - WIDEN FROM 2 TO 4 LANES & BIKE LANES FOR 1.7 MILES FROM CALLEGUAS CR TO RT 101	$6,205
L	VENLS07	0	HBRR LOCAL BRIDGE LUMP SUM FOR 2004/2005 - (PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126,127,128,EXEMPT TABLES 2 & 3)	$10,592
T	057402	0	NINETEEN (19) REPLACEMENT CNG PARATRANSIT VEHICLES	$1,869
T	VEN010406	0	SMART CARD DATA MANAGEMENT	$1,062
T	VEN010409	0	EAST COUNTY ADA PARATRANSIT SERVICE OPERATIONS	$793
T	VEN011214	0	DBE GOAL EVALUATION/SETTING CONSULTING SERVICE	$106
T	VEN011218	0	MOBILE DATA TERMINALS	$75
T	VEN011219	0	BUS WASHER REPLACEMENT	$484
T	VEN011220	0	MAINTENANCE FACILITY EXPANSION	$1,264
T	VEN011221	0	PAINT 4 CNG BUSES	$35
T	VEN011222	0	FOUR (4) REPLACEMENT COMPUTERS	$10
T	VEN011223	0	THREE (3) REPLACEMENT UTILITY VANS	$105
T	VEN011226	0	METROLINK RAIL REPLACEMENT MOORPARK TO SIMI VALLEY	$4,216
T	VEN020901	0	FUEL TANK REMEDIATION - MTBE PROJECT	$192
T	VEN020902	0	FINANCIAL MANAGEMENT SYSTEM	$73
T	VEN020903	0	REPLACE TRANSIT RADIO SYSTEM	$278
T	VEN030604	0	PREVENTIVE MAINTENANCE - ADA PARATRANSIT	$1,869
T	VEN030608	0	CAPITAL MAINTENANCE FOR MOORPARK TRANSIT - BUSES AND TRANSIT CENTER (MOORPARK METROLINK STATION)	$793
T	VEN030609	0	METROLINK STATION SECURITY WALL (TRANSIT ENHANCEMENT)	$79
T	VEN030611	0	PREVENTIVE MAINTENANCE- THOUSAND OAKS TRANSIT FIXED-ROUTE BUSES AND FACILITIES INCLUDING TRANSIT CENTER	$1,260
T	VEN030612	0	ADA SERVICE - CAPITAL LEASE COST	$816
T	VEN030614	0	THOUSAND OAKS TRANSPORTATION CENTER OPERATIONS BUILDING & CUSTOMER WAITING ROOM INCLUDING LANDSCAPING, OUTDOOR SEATING, AND SECURITY LIGHTING	$1,982
T	VEN030909	0	TWO GILLIG BUSES CONVERT FROM DIESEL TO CNG AND REHAB	$524
T	VEN031202	0	SIMI VALLEY TRANSIT EXPANSION TO SERVE NEW MALL - DEMONSTRATION PROJECT	$1,268
T	VEN031203	0	ONE (1) CNG PARATRANSIT VAN FOR EXPANSION	$100
T	VEN031218	0	REALIGN MOORPARK RAIL STATION SOUTH PARKING LOT ENTRANCE	$150

VENTURA COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	VEN031223	0	REFURBISH OXNARD TRANSPORTATION CENTER EAST FOURTH STREET PARKING LOT	$1,103
T	VEN031232	0	REPLACE OFFICE EQUIPMENT	$63
T	VEN031233	0	REPLACE BUS VACUUM SYSTEM	$200
T	VEN031236	0	TRANSIT OPERATOR AUDIO VISUAL TRAINING AIDS/MATERIALS	$10
T	VEN031237	0	MIGRATION FROM MIDAS TO TRAPEZE SOFTWARE FOR PARATRANSIT SERVICE SCHEDULING	$50
T	VEN031239	0	RUN CUTTING/SCHEDULING SOFTWARE ACQUISITION	$53
T	VEN031241	0	SAFETY AND SECURITY PLANNING AND TRAINING	$10
T	VEN031242	0	REPLACE GARAGE HOISTS	$30
T	VEN031244	0	TRANSIT MARKETING	$30
T	VEN031245	0	ONE (1) REPLACEMENT COLOR LASER JET PRINTER	$4
T	VEN031246	0	GFI FAREBOX REPLACEMENT	$190
T	VEN031247	0	FOUR (4) REPLACEMENT COMPUTERS	$10
T	VEN031249	0	REPLACE BUS STOP SIGNS	$20
T	VEN031253	0	TWO FLOOR JACKS	$3
T	VEN040405	0	NEXT BUS UPGRADE FOR REAL-TIME BUS STOP SIGNAGE (TRANSIT ENHANCEMENTS)	$244
T	VEN041002	0	ONE MECHANIC TOOL SET	$15
T	VEN050401	0	OPERATING ASSISTANCE -- CAMARILLO AREA TRANSIT	$3,900
T	VEN050405	0	SECURITY CAMERAS AT MOORPARK METROLINK STATION	$400
T	VEN050701	0	REPLACE BUS MAINTENANCE EQUIPMENT	$75
T	VEN051001	0	PURCHASE TWO MODIFIED VANS FOR ARC VENTURA COUNTY (C/O PROJECT FROM 05/06)	$223
T	VEN051005	0	ELDERLY & DISABLED ACCESS SERVICE PROJECTS IN VENTURA COUNTY ABOVE AND BEYOND ADA REQUIREMENTS 5307 = NEW FREEDOMS INITIATIVE FUNDS	$2,119
T	VEN051203	0	TITLE VI SURVEYS	$70
T	VEN051204	0	REFURBISH BUSES	$318
T	VEN051205	0	TRANSIT ITS SYSTEM UPGRADE STP=FY 2006/07 SURFACE TRANS PROJECT APPROPRIATION EARMARK	$700
T	VEN051207	0	REPLACE TWELVE (12) COMPUTERS	$30
T	VEN051208	0	ONE (1) REPLACEMENT COPIER	$10
T	VEN051209	0	UPGRADE TRACK ON VCTC SANTA PAULA BRANCH LINE FOR 4.4 MILES FROM MONTALVO JUNCTION IN VENTURA TO CAMPANULA CREEK IN SATICOY	$810,772

VENTURA COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	VEN054601	0	4 REPLACEMENT CNG BUSES AND 16 REPLACEMENT FLEET SUPPORT AND VANPOOL VEHICLES	$1,684
T	VEN055401	0	EXPAND TRANSIT MAINTENANCE FACILITY TO ACCOMMODATE SYSTEM EXPANSION	$2,171
T	VEN055404	0	THREE REPLACEMENT PARATRANSIT VANS WITH FAREBOXES AND 2-WAY RADIOS	$330
T	VEN055405	0	INSTALL METHANE INFUSION EQUIPMENT TO IMPROVE RELIABILITY OF CNG SUPPLY	$230
T	VEN055406	0	FIVE REPLACEMENT PARATRANSIT VANS	$523
T	VEN055408	0	AUTOMATIC VEHICLE LOCATION AND DATA TERMINALS	$216
T	VEN055409	0	THREE REPLACEMENT PARATRANSIT VANS	$302
T	VEN055410	0	ONE EXPANSION PARATRANSIT VAN	$121
T	VEN055412	0	THREE (3) REPLACEMENT PARATRANSIT VANS	$515
T	VEN055413	0	ONE EXPANSION PARATRANSIT VAN	$128
T	VEN056409	0	BUS STOP ENHANCEMENTS FOR THOUSAND OAKS TRANSIT	$50
T	VEN056410	0	TRANSIT MARKETING FOR THOUSAND OAKS TRANSIT	$194
T	VEN057403	0	DOWNTOWN VENTURA / VENTURA HARBOR DEMONSTRATION SERVICE (3-YEAR DEMONSTRATION)	$551
T	VEN057404	0	REPLACE SERVICE VEHICLES	$255
T	VEN057413	0	CNG FUEL REPLACEMENT TANKS	$1,050
T	VEN057414	0	MIS EQUIPMENT REPLACE/UPGRADE	$84
T	VEN059401	0	VENTURA COUNTY SMARTCARD SYSTEM MAINTENANCE & REHABILITATION	$631
T	VEN060202	0	BUS TRANSIT RADIO SYSTEM	$469
T	VEN061000	0	CAMARILLO RAIL STATION MAINTENANCE	$437
T	VEN061001	0	PURCHASE ONE MINIVAN FOR REPLACEMENT FOR ARC VENTURA COUNTY	$54
T	VEN061002	0	PURCHASE TWO MODIFIED VANS FOR REPLACEMENT FOR CAMARILLO HEALTH CARE DISTRICT	$125
T	VEN061005	0	PURCHASE ONE EXPANSION DEMAND-RESPONSE BUS	$84
T	VEN061006	0	BUS BENCH REPLACEMENT	$10
T	VEN061007	0	MILLS ROAD AT MAPLE ADJACENT TO PACIFIC VIEW MALL - BUS TURNOUTS WITH BUS SHELTERS, AND OTHER BUS STOP AMENITIES	$359
T	VEN061008	0	REPLACE MAINTENANCE MIS EQUIPMENT	$500
T	VEN061010	0	UPGRADE OF COUNTYWIDE BUS ITS EQUIPMENT INCLUDING SMARTCARD AND NEXTBUS SYTEMS AND RENEWAL OF NEXTBUS OPERATING CONTRACT	$374
T	VEN061011	0	RAIL CONSTRUCTION PROJECT MANAGEMENT	$199
T	VEN061013	0	REPLACE HEADSIGNS ON FIVE CNG BUSES	$37
T	VEN061014	0	REPLACE DRIVER SEATS IN EIGHT CNG ADA/DAR VANS	$15

VENTURA COUNTY RTIP PROJECTS				
SYS-TEM*	RTP ID	ROUTE	DESCRIPTION	PROJECT COST ($1,000'S)
T	VEN061017	0	REPLACE TWO (2) LASER JET PRINTERS	$6
T	VEN06104	0	PURCHASE ONE REPLACEMENT FIXED-ROUTE BUS	$152
T	VEN061215	0	ONE (1) EXPANSION SUPERVISOR VEHICLE (NON-REVENUE)	$30
T	VEN070203	0	CAMARILLO METROLINK STATION IMPROVEMENTS INCLUDING PLATFORM AND PEDESTRIAN CIRCULATION, PASSENGER STATION BUILDING/RESTROOMS, PLUS RELATED CONSTRUCTION OF NEW SIDING BETWEEN CAMARILLO AND OXNARD	$4,400
T	VEN34206	0	OPERATING ASSISTANCE - FIXED ROUTE	$22,813
T	VEN34253	0	OPERATING ASSISTANCE - FIXED ROUTE & PARATRANSIT	$3,148
T	VEN34348	0	TRANSIT PROGRAMMING & PLANNING	$763
T	VEN54036	0	IN VENTURA COUNTY VENTURA INTERCITY SERVICE TRANSIT AUTHORITY (VISTA) CAPITAL LEASE	$24,087
T	VEN54054	0	PASSENGER AWARENESS ACTIVITY	$563
T	VEN54056	0	PLANNING/IMPLEMENTATION OF COORDINATED PARATRANSIT	$678
T	VEN54057	0	MARKETING ACTIVITIES IMPLEMENTATION (PLANNING: PROGRAM SUPPORT & ADM)	$970
T	VEN54069	0	DIAL-A-ROUTE TRANSIT INFORMATION	$763
T	VEN54070	0	TRANSIT MARKETING	$1,412
T	VEN54095	0	ADA PARATRANSIT SERVICE	$7,022
T	VEN54115	0	VISTA BUS SYSTEM PLANNING	$537
T	VEN54149	0	TWO-WAY RADIO SYSTEM REPLACEMENT	$125
T	VEN64003	0	PREVENTIVE MAINTENANCE - FIXED ROUTE	$12,942
T	VEN981107	0	ADA SERVICE - PARATRANSIT CAPITAL	$6,882
T	VEN981118	0	PREVENTIVE MAINTENANCE	$6,035
T	VEN990602	0	TRANSIT PLANNING & PROGRAMMING	$1,173
T	VEN990609	0	SYSTEMWIDE REHABILITATION AND RENOVATION INCLUDING TRACK, SIGNALS, PLATFORMS, POWER SYSTEMS, FACILITIES, ROLLING STOCK, EQUIPMENT, SIGNAGE	$27,540
T	VEN990903	0	OXNARD TRANSPORTATION CENTER PARKING EXPANSION / IMPROVEMENTS STP = STIP-IRR FUNDS	$4,317
T	VEN991203	0	INSTALLATION OF ABOVE GROUND HOIST SYSTEM	$175

* S=State Highway, L=Local Highway, T=Transit

Financially Constrained RTP Projects

The following projects are included in the financially constrained RTP and represent regional commitments above and beyond what is already programmed in the 2006 RTIP. Projects are sorted by category, and project costs are presented in nominal dollars.

The "Project Completion By" column indicates the first year for which a project may have been analyzed as part of the RTP modeling and regional emissions analysis. For more specific individual project information as part of the RTP modeling and regional emissions analysis, refer to the Master Modeled Project List available at www.scag.ca.gov/rtp2008/.

IMPERIAL COUNTY RTP PROJECTS

IMPERIAL COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
ARTERIAL	6A07008	0	JASPER RD.	SR-111	SR-7	WIDEN FROM 2 TO 6 LANES (3 EACH DIR) LIMITED AC-CESS EXPRESSWAY	2023	$819,601
ARTERIAL	6M0400E	115	SR-115	I-8	EVAN HEWES HWY	CONSTRUCT 4-LANE LIMITED ACCESS EXPRESSWAY	2018	$157,600
IC/RAMPS	6M04018	8	I-8	DOGWOOD RD		ON I-8 AT DOGWOOD RD, CONSTRUCT FULL INTER-CHANGE - WIDEN DOGWOOD FROM 2 TO 4 LANES (2 EACH DIR) OVER I-8	2018	$41,006
MIXED FLOW	6M01003	111	SR-111	SR-98	I-8	UPGRADE TO FREEWAY (3 LANES EACH DIR) INCL. INTERCHANGES AT MCCABE, JASPER, HEBER, AND OVER-CROSSING AT CHICK RD	2030	$824,962
O&M	6OM0701	0	OPERATIONS & MAINTE-NANCE	COUNTYWIDE		STATE HIGHWAY, ARTERIAL, AND TRANSIT PRESERVA-TION/MAINTENANCE AND OPERATIONS	ONGOING	$184,677
TDM	6TDL04	0	TDM/NON-MOTORIZED	COUNTYWIDE		TDM (NON-MOTORIZED, TELECOMMUTE, ETC.)	ONGOING	$52,712

* For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

LOS ANGELES COUNTY RTP PROJECTS

LOS ANGELES COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
ARTERIAL	1AL04	0	ARTERIAL IMPROVEMENTS	COUNTYWIDE		REGIONAL SURFACE TRANSPORTATION IMPROVEMENTS, INCLUDING GOODS MOVEMENT GRADE CROSSINGS	ONGOING	$2,891,358
HOV	1H0707	5	I-5	ROUTE 19	I-710	RTE 5 HOV LNS FROM RTE 19 TO RTE 710 - ADD ONE LANE IN EACH DIRECTION	2035	$396,909
HOV	1H0102	5	I-5	SR-170		I-5/SR-170 HOV CONNECTOR	2030	$215,342
HOV	1H0103	5/405	I-5/I-405	SOUTH	NORTH	I-5/I-405 CARPOOL LANE PARTIAL CONNECTOR (SOUTH TO NORTH)	2030	$503,008
HOV	1H0101	14	SR-14	AVE. P-8	AVE. L	ADD 1 HOV LANE EACH DIRECTION ON THE SR-14 FROM AVE. P-8 TO AVE. L	2030	$151,943
IC/RAMPS	1M0430	47	SR-47	AT NAVY WAY		CONSTRUCTION OF INTERCHANGE AT SR-47 / NAVY WAY	2014	$58,925
IC/RAMPS	1M0132	103	PIER B ST/TERMINAL ISLAND FWY			INTERCHANGE IMPROVEMENT - NEW NB ON-RAMP TO SR-103	2010	$2,392
IC/RAMPS	1M0104	57/60	SR-57/SR-60			SR-57/SR-60 INTERCHANGE IMPROVEMENT	2030	$735,341
ITS	1ITS04	0	ITS	COUNTYWIDE		SIGNAL SYNCHRONIZATION & BUS SPEED IMPROVEMENT	ONGOING	$1,728,758
NON-MO-TORIZED	1NL04	0	NON-MOTORIZED	COUNTYWIDE		BIKEWAY AND PEDESTRIAN IMPROVEMENTS, TRANS-PORTATION ENHANCEMENTS	ONGOING	$1,192,114
O&M	1OM0702	0	OPERATIONS & MAINTE-NANCE	COUNTYWIDE		STATE HIGHWAY, ARTERIAL, AND TRANSIT PRESERVA-TION/MAINTENANCE AND OPERATIONS	ONGOING	$5,462,621
OPERA-TIONAL	1O0703	0	FREEWAY SERVICE PATROL	COUNTYWIDE		FREEWAY SERVICE PATROL	ONGOING	$955,620
OTHER	1O0701	0				EXPANSION OF PIER B ST INTERMODAL RAILYARD (FOR PIER B ST REALIGNMENT PHASE OF PROJECT SEE LA0C8094)	2015	$370,787
OTHER	1O0702	0	RETROFIT SOUNDWALL PROGRAM	COUNTYWIDE		RETROFIT SOUNDWALL PROGRAM	ONGOING	$1,150,640
OTHER	1O0704	0	SAFE CALL BOXES	COUNTYWIDE		SAFE CALL BOXES	2030	$341,238

LOS ANGELES COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
OTHER	100711	0	CAPITAL PROJECT CONTIN-GENCY	COUNTYWIDE		HIGHWAY PROJECT CONTINGENCY	ONGOING	$1,944,223
OTHER	100706	0	PORTS OF LOS ANGELES/ LONG BEACH			PORTS RAIL SYSTEM	2018	$257,900 (As-sumes cost covered by Ports of LA/LB)
OTHER	100707	0	PORTS OF LOS ANGELES/ LONG BEACH			NEW CERRITOS CHANNEL RAIL BRIDGE	TBD	$91,000 (Assumes cost covered by Ports of LA/LB)
OTHER	100708	0	PORTS OF LOS ANGELES/ LONG BEACH			TRIPLE TRACK S/O THENARD	2020	$16,500 (Assumes cost covered by Ports of LA/LB)
OTHER	100709	0	PORTS OF LOS ANGELES/ LONG BEACH			REEVES GRADE SEPARATION	2014	$61,000 (Assumes cost covered by Ports of LA/LB)
OTHER	100710	0	PORTS OF LOS ANGELES/ LONG BEACH			OTHER IN-PORT MAINLINE	TBD	$204,700 (As-sumes cost covered by Ports of LA/LB)
TDM	1TDL04	0	TDM	COUNTYWIDE		TRANSPORTATION DEMAND MANAGEMENT	ONGOING	$490,541
TDM	1RL04	0	RIDESHARE	COUNTYWIDE		RIDESHARE SERVICES	ONGOING	$461,992
TRANSIT - BRT	1TR0705	0	CANOGA TRANSITWAY	WARNER CENTER	CHATSWORTH	SAN FERNANDO VALLEY NORTH/SOUTH BRT PHASE I (EXTENSION OF METRO ORANGE LINE ALONG CANOGA RAIL ROW, BRT OR LRT, TECHNOLOGY TBD)	2018	$212,123
TRANSIT - BRT	1TR0706	0	SFV N/S BRT			SAN FERNANDO VALLEY NORTH/SOUTH BRT PHASE II (METRO RAPID SERVICE IMPROVEMENTS ON MAJOR NORTH/SOUTH ARTERIALS IN SFV)	2026	$157,464
TRANSIT - BUS	1TL104	0	BUS CAPITAL	COUNTYWIDE		COUNTYWIDE BUS SYSTEM IMPROVEMENT	ONGOING	$15,071,170

LOS ANGELES COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
TRANSIT - COM-MUTER RAIL	1CR04	0	METROLINK COMMUTER RAIL	COUNTYWIDE		SERVICE EXPANSION	ONGOING	$1,321,163
TRANSIT - HEAVY RAIL	UT101	0	METRO PURPLE (FORMER RED) LINE WESTSIDE EXTENSION	WILSHIRE/WEST-ERN STATION	LA CIENAGA	WESTSIDE EXTENSION - PURPLE LINE FROM WILSHIRE/ WESTERN TO LA CIENEGA	2020	$1,448,263
TRANSIT - HEAVY RAIL	1TR0404	0	REGIONAL CONNECTOR	LA UNION STA-TION	7TH ST/METRO CENTER	LIGHT RAIL IN TUNNEL ALLOWING THROUGH MOVE-MENTS OF TRAINS (BLUE, GOLD, EXPO LINES)	2035	$4,246,141
TRANSIT - LIGHT RAIL	1TR0704	0	METRO RAIL GOLD LINE EXTENSION	AZUSA-CITRUS	MONTCLAIR	METRO RAIL GOLD LINE EXTENSION-SEGMENT 2 AZUSA-CITRUS TO MONTCLAIR STATION LRT EXTENSION.	2020	$1,250,761
TRANSIT - LIGHT RAIL	1TR0101	0	METRO RAIL GREEN LINE EXTENSION	MARIPOSA & NASH	CENTURY & SEPULVEDA-LAX TERMINAL	PEOPLE MOVER OR LIGHT RAIL	2030	$401,497
TRANSIT - OTHER	1TL204	0	TRANSIT CAPITAL PROJECT FUNDING	COUNTYWIDE		TRANSIT CAPITAL PROJECT FUNDING	ONGOING	$708,517
TRANSIT - OTHER	1TL0703	0	METRO RAIL TRANSIT CAPITAL	COUNTYWIDE		RAIL CAPITAL PROJECTS	ONGOING	$6,145,709
TRANSIT O&M	1OM0701	0	METRO RAIL GOLD LINE EXTENSION O&M			METRO RAIL GOLD LINE EXTENSION O&M - SEGMENT 2 AZUSA-CITRUS TO MONTCLAIR STATION LRT EXTEN-SION.	ONGOING	$330,024
TRANSIT O&M	1OM0702	0	METRO PURPLE (FORMER RED) LINE WESTSIDE EXTENSION O&M			WESTSIDE EXTENSION - PURPLE LINE O&M FROM WILSHIRE/WESTERN TO LA CIENEGA	ONGOING	$640,321

* For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

ORANGE COUNTY RTP PROJECTS

ORANGE COUNTY RTP PROJECTS								
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
ARTERIAL	2A0703	0	M1 ROADWAY PROJ-ECTS	COUNTYWIDE		COMPLETION OF MEASURE M ROADWAY PROJECTS	ONGOING	$37,118
ARTERIAL	2A0704	0	REGIONAL CAPACITY PROGRAM	COUNTYWIDE		COMPLETE MPAH, IMPROVE ARTERIAL CAPACITY	ONGOING	$1,124,497
ARTERIAL	2A0705	0	SIGNAL SYNCHRONI-ZATION PROGRAM	COUNTYWIDE		SYNCHRONIZE SIGNALS ACROSS JURISDICTIONS AND SMART STREETS	ONGOING	$823,265
ARTERIAL	2A0706	0	IRVINE CENTER DRIVE	AT I-405		WIDEN OVERCROSSING	2025	$11,176
AUXILIARY	2M01108	5	I-5 SB	LA PAZ ROAD	OSO PARKWAY	EXTEND AUXILIARY LANE THROUGH INTERCHANGE	2030	$5,322
AUXILIARY	2M01110	5	I-5 SB	ALICIA PARKWAY	LA PAZ ROAD	EXTEND AUXILIARY LANE THROUGH INTERCHANGE	2030	$19,510
AUXILIARY	2M0704	55	SR-55 NB	DYER	EDINGER	ADD AUXILIARY LANE	2030	$146,633
AUXILIARY	2M01125	91	SR-91 WB	NB SR-55	WB SR-91 AT TUSTIN	ADD 1 AUX LANE WESTBOUND	2014	$115,394
AUXILIARY	2M04130	405	I-405 SB	SR-133	IRVINE CENTER DRIVE	ADD 2ND AUXILIARY LANE	2020	$10,892
AUXILIARY	2M04131	405	I-405 NB	JEFFREY	CULVER	ADD AUXILIARY LANE	2020	$13,927
GRADE SEPA-RATION	2GL04	0	GRADE SEPARATION	LOSSAN/BNSF		CONSTRUCT GRADE SEPARATIONS AT SELECT LOCATIONS ALONG THE LOSSAN AND BNSF CORRIDORS	ONGOING	$718,976
HOV	2H01143	5	I-5	COAST HIGHWAY	PICO	ADD 1 HOV LANE EACH DIRECTION	2018	$202,680
HOV	2H0702	5	I-5	BARRANCA PARKWAY		BARRANCA PARKWAY HOV INTERCHANGE IMPROVEMENT - ADD SB HOV ON-RAMP AND NB HOV OFF-RAMP	2021	$24,966
HOV	2H0703	5	I-5	SR-55	SR-57	ADD 1 HOV LANE EACH DIRECTION	2035	$600,929
HOV	2H0705	57	SR-57	CERRITOS		HOV DROP RAMP	2035	$277,056
HOV	2H0706	73	SR-73	I-405		HOV CONNECTOR	2035	$664,935
HOV	2H0707	73	SR-73	I-405	MACARTHUR	ADD 1 HOV LANE EACH DIRECTION	2035	$236,421
HOV	2H01148	405	I-405	AT VON KARMAN		HOV DROP RAMP	2020	$139,275
HOV	2H0701	405	I-405	BEAR		HOV DROP RAMP	2020	$133,918
IC/RAMPS	2M01107	5	I-5	SR-55		RECONFIGURE INTERCHANGE TO REDUCE WEAVING - INTERIM PROJECT	2035	$811,254

ORANGE COUNTY RTP PROJECTS								
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
IC/RAMPS	2M01111	5	I-5	AVERY PARKWAY		AVERY PARKWAY RAMP RELOCATION, RECONFIGURATION, UPGRADES	2023	$141,535
IC/RAMPS	2M01109	5	I-5	LA PAZ ROAD		RE-CONSTRUCT INTERCHANGE TO INCREASE STORAGE CAPACITY OF RAMPS	2023	$115,284
IC/RAMPS	2M04109A	5	I-5	STONEHILL DR		ADD SOUTHBOUND I-5 OFF-RAMP AT STONEHILL	2020	$117,848
IC/RAMPS	2M0709	5	I-5	ALICIA PARKWAY		ALICIA PKWY INTERCHANGE IMPROVEMENT	2021	$118,405
IC/RAMPS	2M0714	5	I-5	AVENIDA PICO		AVENIDA PICO INTERCHANGE RECONFIGURATION	2017	$62,818
IC/RAMPS	2M0717	5	I-5	EL TORO ROAD (LOS ALISOS)		ADD RAMPS AT LOS ALISOS OR AVE. DE LA CARLOTA	2023	$123,912
IC/RAMPS	2M0718	5	I-5	MARGUERITE PARKWAY		ADD NEW INTERCHANGE AT MARGUERITE PARKWAY (SADDLEBACK CC CONNECTION)	2020	$186,057
IC/RAMPS	2M0738	5	I-5	EL TORO	JAMBOREE	NORTH IRVINE TRANSPORTATION MITIGATION (NITM) RAMP IMPROVEMENTS (ALTON, BAKE, CULVER, EL TORO, JAMBOREE, JEFFREY, AND SAND CANYON)	2025	$82,806
IC/RAMPS	2M01129	55	I-405 SB/SR-55 NB	SOUTH BRISTOL BRAID		DELETE LEFT TURN ACCESS FROM NB BRISTOL TO SB I-405. PROVIDE RIGHT TURN ON-RAMP FROM NB BRIS-TOL TO SB I-405 VIA A NEW BRAID THAT ALSO PROVIDES DIRECT ACCESS TO NB SR-55.	2035	$192,092
IC/RAMPS	2M0724	57	SR-57	LAMBERT ST		LAMBERT INTERCHANGE IMPROVEMENT	2035	$26,967
IC/RAMPS	2M0726	73	SR-73	GLENWOOD DRIVE		COMPLETE GLENWOOD INTERCHANGE TO/FROM SOUTH	2035	$92,352
IC/RAMPS	2M01127	91	SR-91	LAKEVIEW INTER-CHANGE		CONSTRUCT BARRIER-SEPARATED ON-RAMP (2 LANES) FROM SB LAKEVIEW TO WB SR-91	2035	$200,178
IC/RAMPS	2M0727	91	SR-91	SR-55		IMPROVE INTERCHANGE	2020	$446,394
IC/RAMPS	2M0719	605	I-605	KATELLA ON-RAMP		IMPROVE INTERCHANGE	2035	$85,463
MIXED FLOW	2M0731	5	I-5	SR-133	SR-55	ADD 1 MF LANE EACH DIRECTION	2030	$647,980
MIXED FLOW	2M0732	5	I-5	SR-57	SR-91	ADD 1 LANE EACH DIRECTION	2030	$1,093,331
MIXED FLOW	2M0730	5	I-5	SR-73	EL TORO RD	ADD 1 MF LANE EACH DIRECTION	2035	$1,470,333
MIXED FLOW	2M0733	55	SR-55	I-405	SR-22	ADD 1 MIXED FLOW LANE EACH DIRECTION & FIX CHOKE-POINTS FROM I-405 TO SR-22	2030	$596,185
MIXED FLOW	2M0735A	57	SR-57 NB	ORANGEWOOD	KATELLA	ADD 1 MF LANE NB	2018	$13,439

ORANGE COUNTY RTP PROJECTS								
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
MIXED FLOW	2M0735B	57	SR-57 NB	LINCOLN	ORANGETHO-RPE	ADD 1 MF LANE NB AND INTERCHANGE IMPROVEMENTS AT SR-91	2020	$39,318
MIXED FLOW	2M01126	91	SR-91 WB	SR-57	I-5	ON SR-91 WB FROM SR-57 TO I-5, TIE EXISTING AUX LANES TOGETHER TO FORM A NEW 4TH MF LANE	2018	$193,863
MIXED FLOW	2M0736	91	SR-91 EB	SR-57	SR-55	ADD 1 MF LANE	2023	$25,295
MIXED FLOW	2M0737	91	SR-91	SR-241	I-15	IN ORANGE COUNTY, ADD A WB MF LANE FROM 241 OFF RAMP TO GYPSUM CANYON AND AUX LANES EACH DIREC-TION BETWEEN 241 AND COUNTY LINE. SEE RIVERSIDE COUNTY FOR ADDITIONAL IMPROVEMENTS.	2018	$219,678
MIXED FLOW	2M0728	405	I-405	I-5	SR-55	ADD 1 MF LANE EACH DIRECTION	2035	$1,009,468
NON-MOTOR-IZED	2L224	0	OTHER TEA	COUNTYWIDE		TRANSPORTATION ENHANCEMENT ACTIVITIES	ONGOING	$330,855
NON-MOTOR-IZED	2L220	0	NON-MOTORIZED	COUNTYWIDE		BUILD THE COMMUTER BIKEWAYS STRATEGIC PLAN	ONGOING	$124,092
O&M	2OM0701	0	OPERATIONS & MAIN-TENANCE	COUNTYWIDE		STATE HIGHWAY, ARTERIAL, AND TRANSIT PRESERVATION/ MAINTENANCE AND OPERATIONS	ONGOING	$885,154
OPERATIONAL	2L149	0	MOTORIST SERVICES	COUNTYWIDE		FREEWAY SERVICE PATROL AND CALLBOX PROGRAM	ONGOING	$492,036
OTHER	2SL04	0	CORRIDOR STUDIES			ONGOING CORRIDOR STUDIES AND OTHER STUDIES INCLUDED IN FY 07-08 WORK PROGRAM	ONGOING	$3,881
OTHER	2L150	0	SOUNDWALLS	COUNTYWIDE		RETROFIT SOUNDWALL PROGRAM	ONGOING	$79,045
OTHER	2S1	0	CAL NEVADA HS RAIL	ANAHEIM	ONTARIO AIRPORT	STUDY FEASIBILITY OF ADDING HIGH SPEED RAIL BE-TWEEN ANAHEIM AND ONTARIO AIRPORT	2020	$1,645
TOLL	2T04128	91	SR-91	FAIRMONT DRIVE		CONSTRUCT NEW PARTIAL OVERCROSSING AT FAIRMONT BLVD TO PROVIDE NORTHERLY ACCESS FOR YORBA LINDA TO/FROM SR-91 EXPRESS LANES; DROP RAMPS ON EAST SIDE OF OVERCROSSING, TO EB AND FROM WB EXPRESS LANES	2018	$91,107
TOLL	2T01135	91	SR-91	SR-241		HOV/HOT CONNECTOR NB 241 TO EB 91, WB 91 TO SB 241	2020	$404,398

ORANGE COUNTY RTP PROJECTS								
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
TRANSIT - BRT	2TR01209C, 2TR04209D, 2TR04209E, 2TR04209F	0	BUS RAPID TRANSIT	COUNTYWIDE		ADD MIXED FLOW BUS RAPID TRANSIT WITH SIGNAL PRIORITY ON THE FOLLOWING LINES: KATELLA, EDINGER, BEACH, AND LA PALMA	2018	(cost included in Fixed Route Bus category)
TRANSIT - BRT	2TR0711	0	IRVINE GUIDEWAY DEMONSTRATION PROJECT			5 MILE TRANSIT SYSTEM IN THE GREAT PARK/SPECTRUM AREA. LINKS IRVINE STATION WITH SPECTRUM AND OTHERS	2012	$325,539
TRANSIT - BUS	2L207	0	EXPRESS BUS	COUNTYWIDE (INTER-COUNTY AND INTRA-COUNTY)		RIVERSIDE TO FULLERTON (11), RIVERSIDE TO ANAHEIM (11), RIVERSIDE/CORONA TO IRVINE (11), SAN CLEMENTE TO LAGUNA HILLS (10), SAN CLEMENTE TO SOUTH COAST METRO (12), LONG BEACH TO SOUTH COAST METRO (12), RANCHO SANTA MARGARITA TO IRVINE (12), LONG BEACH TO ORANGE (12), AND OTHERS	2030	(cost included in Fixed Route Bus category)
TRANSIT - BUS	2L208	0	RAIL FEEDER BUS	COUNTYWIDE		RAIL FEEDER - ADD SERVICE TO SUPPORT METROLINK EXPANSION	ONGOING	(cost included in Fixed Route Bus category)
TRANSIT - BUS	2TR0702	0	COMMUNITY-BASED SHUTTLES	COUNTYWIDE		DEPLOY COMMUNITY-BASED SHUTTLES	ONGOING	$175,667
TRANSIT - BUS	2TR0703	0	ELDERLY & HANDI-CAPPED ASSISTANCE	COUNTYWIDE		EXPAND TRANSPORTATION CHOICES FOR SENIORS AND THE DISABLED	ONGOING	$274,299
TRANSIT - BUS	2TR0708	0	EXTENSIONS TO METROLINK	COUNTYWIDE		PROGRAM TO DEVELOP CITY-INITIATED PROJECTS TO IMPROVE ACCESS TO METROLINK STATIONS (GO LOCAL)	ONGOING	$1,901,102
TRANSIT - BUS & BRT	2L206	0	FIXED ROUTE BUS	COUNTYWIDE		COUNTYWIDE FIXED ROUTE, EXPRESS, RAPID BUS, PARATRANSIT. EXPAND LOCAL SERVICE TO ACHIEVE UP TO 10-MINUTE HEADWAYS IN THE CORE OF THE COUNTY.	ONGOING	$2,100,102
TRANSIT - COMMUTER RAIL	2TR0704	0	METROLINK COM-MUTER RAIL	COUNTYWIDE		HIGH-FREQUENCY SERVICE TO LA & RIVERSIDE AND COR-RIDOR IMPROVEMENTS	ONGOING	$1,070,891
TRANSIT - INTERMODAL	2TR0705	0	METROLINK REGIONAL GATEWAY PROGRAM	COUNTYWIDE		DEVELOP INTERMODAL CENTER(S) LINKED WITH HIGH-SPEED RAIL	ONGOING	$600,601

ORANGE COUNTY RTP PROJECTS								
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
TRANSIT - INTERMODAL	2TR0712	0	IRVINE STATION IMPROVEMENTS			ENHANCE STATION TO ACCOMMODATE METROLINK, AMTRAK, FIXED-ROUTE BUS SERVICE, AND THE IRVINE GUIDEWAY	2015	$266,815
TRANSIT - OTHER	2TR0709	0	SAFE TRANSIT STOPS	COUNTYWIDE		IMPROVE SAFETY AND AMENITIES AT TRANSIT STOPS	ONGOING	$64,579
TRUCK CLIMBING	2TK01116	57	SR-57 NB	LAMBERT	TONNER CAN-YON ROAD	TRUCK CLIMBING LANE	2030	$239,274
TRUCK LANE	2M0708	405	I-405 NB	LAKE FOREST DRIVE	IRVINE CENTER DRIVE	ADD 2ND NB TRUCK LANE	2018	$3,862

* For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

RIVERSIDE COUNTY RTP PROJECTS

RIVERSIDE COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
ARTERIAL	3AL104	0	ARTERIAL IMPROVE-MENTS	COACHELLA VALLEY		EASTERN COUNTY WIDEN/RECONSTRUCT/REHABILI-TATE REGIONAL ARTERIALS	ONGOING	$1,236,164
ARTERIAL	3AL204	0	ARTERIAL IMPROVE-MENTS	COUNTYWIDE		WIDEN/CONSTRUCT REGIONAL ARTERIALS	ONGOING	$1,348,543
ARTERIAL	3AL304	0	ARTERIAL IMPROVE-MENTS	WESTERN COUNTY		WESTERN COUNTY WIDEN/REHABILITATE ARTERIAL IMPROVEMENTS	ONGOING	$1,236,164
ARTERIAL	3A04SH12A	79	SR-79	DOMENIGONI PKWY (R15.6)	GILMAN SPRINGS RD. (M32.6)	REALIGNMENT/WIDENING 4 TO 6 LANES	2035	$2,879,761
ARTERIAL	3A04SH12	79	SR-79	HUNTER RD	DOMENIGONI PKWY	WIDEN FROM 4 TO 6 LANES	2020	$213,804
AUXILIARY	3M04SH05	10	I-10	CALIMESA @ COUNTY LINE RD (R4.0)	500 METERS E/O SANDLWOOD DR I/C (R4.3)	REPLACE BRIDGE, RAMPS, CONSTRUCT AUXILIARY LANES, AND REALIGN CALIMESA RD (EA 0A710K)	2020	$212,193
AUXILIARY	3M0701	15	I-15	SR79 SOUTH (3.44)	SR79 NORTH (6.62)	ADD 1 AUXILIARY LANE IN BOTH DIRECTIONS	2012	$5,853
AUXILIARY	3M0702	15	I-15	SR-60 (51.5)	SAN BERNARDINO COUNTY LINE (52.8)	ALSO SBD-15-0.0/2.39 ROUTE 60 TO I-10 ADD & EX-TEND AUX LANES (EA:0C350) (ALSO SEE 3M01MA06)	2030	$35,608
AUXILIARY	3M04SH11	60	SR-60	0.4 MI E/O I-15/ SR-60 IC	0.2 MI E/O MAIN ST	ADD AUXILIARY LANES BOTH DIRECTIONS	2009	$11,356
GRADE SEPARA-TION	3GL04	0	GRADE SEPARATION	COUNTYWIDE		GRADE SEPARATION IMPROVEMENTS	ONGOING	$1,228,890
HOV	3M0703	15	I-15	I-215/I-15 JCT	SR74	BUILD 2 HOV LANES (1 LANE IN EACH DIRECTION)	2020	$537,763
HOV	3H07A	215	I-215	NUEVO RD	BOX SPRINGS RD	ADD 1 HOV LANE IN EACH DIRECTION	2020	$168,048
IC/RAMPS	3M0722	0	NEW INTERCHANGE LANDAU AND I-10	VISTA CHINO	VARNER ROAD	CONSTRUCT NEW 6-LANE MIXED FLOW, PARTIAL CLOVERLEAF IC WITH AUXILIARY LANES AND 4 TWO LANE RAMPS PLUS 6 LANE GRADE SEPARATION BRIDGE OVER UPRR BETWEEN PALM DR IC AND DATE PALM DRIVE IC	2035	$238,060

RIVERSIDE COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
IC/RAMPS	3A04WT003	10	I-10 (PM 8.81 TO 9.81)	AT HIGHLAND SPRINGS AVE	BTWN 5TH ST AND SOUTH RAMPS	RECONSTRUCT/WIDEN IC FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	2030	$23,652
IC/RAMPS	3A04WT007	10	I-10 (PM 11.1 TO 11.6)	AT SUNSET AVE	BTWN RAMPS	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	2014	$496
IC/RAMPS	3M01CV01	10	I-10	AT AVE 50	I-10	CONSTRUCT NEW 4 LANE IC AND RAMPS	2020	$54,571
IC/RAMPS	3M04WT001	10	I-10 (PM 7.07 TO 8.07)	AT SR-79/ BEAU-MONT AVE	BTWN 6TH ST & 1ST ST	RECONSTRUCT/WIDEN IC FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	2020	$29,167
IC/RAMPS	3M04WT002	10	I-10 (PM12.35 TO 13.35)	AT 8TH ST	BTWN RAMSEY ST & LINCOLN ST	RECONSTRUCT/WIDEN IC UC 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	2030	$6,860
IC/RAMPS	3M04WT003	10	I-10 (PM 0.0 TO 2.8)	AT CALIMESA BLVD/ SANDALWOOD DR	BTWN 7TH ST & SANDALWOOD DR	RECONSTRUCT IC AND RECONSTRUCT/WIDEN RAMPS	2014	$39,657
IC/RAMPS	3M04WT004	10	I-10 (PM 7.71 TO 8.71)	AT PENNSYLVANIA AVE	BTWN 6TH ST & 3RD ST	RECONSTRUCT IC AND RECONSTRUCT/WIDEN RAMPS	2020	$29,167
IC/RAMPS	3M0704	10	I-10 (PM 18.9 TO 19.9)	IN CABAZON (R18.9) (FROM AP-PROX SEMINOLE DR N/O I-10)	AT MAIN STREET IC (19.9) (TO AP-PROX BONITA AVE S/O I-10)	IMPROVE INTERCHANGE - WIDEN 3 TO 6 LANES & CONSTRUCT RR GRADE SEPARATION CROSSING (EA:0G600)	2014	$32,632
IC/RAMPS	3M0705	10	I-10 (PM SBD 38.66 TO RIV 0.52)	AT COUNTY LINE RD	BTWN 7TH ST & I-10 EAST RAMPS	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	2014	$19,829
IC/RAMPS	3M0715	10	I-10 (PM 58.39 TO 59.39)	AT DILLON RD	BTWN VISTA DEL NORTE AND VISTA DEL SUR	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	2020	$15,161
IC/RAMPS	3M0720	10	I-10	AT FUTURE DA VALL DR AT I-10 SOUTH OF VARNER ROAD	DA VALL ROAD SOUTH OF UPRR	CONSTRUCT NEW 6-LANE MIXED FLOW, PARTIAL CLOVERLEAF IC WITH AUXILIARY LANES AND 4 TWO LANE RAMPS PLUS 6 LANE GRADE SEPARATION BRIDGE OVER UPRR BETWEEN RAMON ROAD IC AND DATE PALM DRIVE IC	2030	$132,986
IC/RAMPS	3M04MA05	10	I-10/SR-60 JCT/SPLIT	SR60/I-10 JCT/ SPLIT		CONSTRUCT NEW INTERCHANGE	2030	$590,624
IC/RAMPS	3A04A16	15	I-15	AT SECOND ST (CHANEY AVE)	BTWN COLLIER AVE AND CAMINO DEL NORTE	CONSTRUCT NEW 4 LANE ARTERIAL CONNECTING OVERCROSS OVER I-15	2035	$74,014

RIVERSIDE COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
IC/RAMPS	3A04A17	15	I-15	AT RIVERSIDE DR	BTWN COLLIER AVE AND DEXTER AVE	CONSTRUCT NEW 4 LANE OC OVER I-15	2023	$43,311
IC/RAMPS	3A04A26	15	I-15	AT BELLEGRAVE AVE	BTWN HAMNER AVE & WINEVILLE RD	ADD SIGNALS AND RAMPS. 0.1 MI.	2030	$13,678
IC/RAMPS	3M04WT005	15	I-15 (PM 45.1 TO 46.1)	AT 6TH ST	BTWN HAMNER AVE & SIERRA AVE	RECONSTRUCT INTERCHANGE/RAMPS/CHANNELIZA-TION IMPROVEMENTS	2018	$22,065
IC/RAMPS	3M04WT007	15	I-15 (PM 42.37 TO 43.37)	AT HIDDEN VALLEY PKWY	BTWN HAMNER AVE & BEYOND NB EXIT RAMP	RECONSTRUCT INTERCHANGE/RAMPS/CHANNELIZA-TION IMPROVEMENTS	2018	$4,414
IC/RAMPS	3M0721	15	I-15 (PM 4.48 TO 5.48)	AT I-15/RANCHO CALIFORNIA	BTWN YNEZ RD AND JEFFERSON AVE	RECONFIGURE 4 TO 6 LANE IC AND RAMPS AT I-15. TYPE OF LANES FOR ARTERIAL WIDENING WILL BE THROUGH LANES.	2030	$48,885
IC/RAMPS	3M0726	15	I-15	AT FRANKLIN	BTWN MAIN ST AND RR	CONSTRUCT NEW 4 LANE IC AND RAMPS	2018	$41,276
IC/RAMPS	3M0727	15	I-15 (PM 15.8 TO 16.8)	AT BUNDY CANYON RD	BTWN ORANGE ST & CHERRY ST	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT RAMPS	2030	$31,814
IC/RAMPS	3M0728	15	I-15 (PM 32.60 TO 33.60)	AT TEMESCAL CANYON	NEAR INDIAN TRUCK TRAIL AND GLENN IVY JUST BEYOND AND BTWN RAMPS	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT RAMPS	2030	$33,501
IC/RAMPS	3M0729	15	I-15 (28.36 TO 29.36)	AT HORSETHIEF CANYON RD	JUST BEYOND AND BTWN RAMPS	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT RAMPS	2030	$6,701
IC/RAMPS	3M0730	15	I-15	AT MURRIETA HOT SPRINGS RD	ENTRANCE AND EXIT RAMP LIMITS	IMPROVE IC RAMPS INCLUDING RECONSTRUCTION OF NORTHBOUND OFF-RAMP TO PROVIDE A LOOP, COMPLETING THE PARTIAL CLOVER LEAF	2014	$6,134
IC/RAMPS	3M0732	15	I-15	AT LEMON ST UC	BTWN ALMOND ST AND GRAPE ST	WIDEN UC FROM 2 TO 4 LANES	2023	$10,191

RIVERSIDE COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
IC/RAMPS	3M0733	15	I-15 (PM 43.13 TO 44.13)	AT 2ND ST	BTWN HAMNER AVE & VALLEY VIEW AVE	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND WIDEN RAMPS	2018	$4,668
IC/RAMPS	3M0734	15	I-15	AT MALAGA RD	BTWN CASINO DR LAKEVIEW TERRACE AND GRAPE ST	CONSTRUCT NEW 4 LANE OC OVER I-15	2030	$49,087
IC/RAMPS	3M0735	15	I-15 (PM 17.01 TO 18.01)	AT OLIVE ST	BTWN ORCHARD ST AND GRAPE ST	CONSTRUCT NEW 4 LANE IC AND RAMPS	2018	$56,483
IC/RAMPS	3M0736	15	I-15 (PM 23.35 TO 24.35)	AT NICHOLS RD	BTWN RAMPS	RECONSTRUCT/WIDEN IC FROM 2 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	2030	$68,606
IC/RAMPS	3M0737	15	I-15	AT LAKE ST	BTWN WALKER CYN RD TEMES-CAL CYN RD	RECONSTRUCT/WIDEN IC FROM 2 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	2023	$28,692
IC/RAMPS	3A04A29	60	SR-60 (PM 9.06 TO 10.06)	AT RUBIDOUX BLVD	BTWN 30TH & 34TH STS	RECONSTRUCT/WIDEN IC, RAMPS AND CHANNELIZA-TION IMPROVEMENTS	2018	$26,960
IC/RAMPS	3A04A30	60	SR-60 (PM SBD 9.46 TO 10.46)	AT MILLIKEN AVE	BTWN HARREL AVE & IBERIA	RECONSTRUCT/WIDEN IC, RAMPS, AND CHANNELIZA-TION IMPROVEMENTS	2018	$4,735
IC/RAMPS	3M01WT019	60			CANYON ROAD	RECONSTRUCT/WIDEN IC, RAMPS AND CHANNELIZA-TION IMPROVEMENTS	2030	$6,701
IC/RAMPS	3M01WT020	60	SR-60 (PM 2.53 TO 3.53)	AT MISSION BLVD	BTWN GRAN-ITE HILL DR & SEVAINE WAY	RECONSTRUCT INTERCHANGE/RAMPS	2030	$11,780
IC/RAMPS	3M04WT017	60	SR-60 (PM 14.84 TO 15.84)	AT HEACOCK ST	BTWN HEMLOCK AVE & SUN-NYMEAD BLVD	WIDEN/RECONSTRUCT IC, RAMPS, AND CHANNEL-IZATION IMPROVEMENTS. NO ADDITIONAL LANES PLANNED	2018	$4,735
IC/RAMPS	3M04WT018	60	SR-60 (PM 11.23 TO 12.23)	AT MAIN ST	BTWN RUSSELL ST & STODDARD AVE	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS, CHANNELIZATION IMPROVEMENTS	2020	$5,834
IC/RAMPS	3M0712	60	SR-60 (PM 19.87 TO 20.87)	AT REDLANDS BLVD	BTWN HEMLOCK AVE & FIR AVE	WIDEN ARTERIAL FROM 2 TO 4 THROUGH LANES. RECONSTRUCT TO TYPE L-9/EB OFF - 3 LANES, EB ON - 2 LANES, WB OFF - 2 LANES, WB ON - 2 LANES	2018	$51,843

RIVERSIDE COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
IC/RAMPS	3M0713	60	SR-60 (PM 15.85 TO 16.85)	AT PERRIS BLVD	BTWN SUN-NYMEAD BLVD & IRONWOOD	RECONSTRUCT/WIDEN ARTERIAL FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS (NO ADDITIONAL LANES PLANNED)	2018	$30,847
IC/RAMPS	3M0714	60	SR-60 (PM 21.60 TO 22.60)	AT GILMAN SPRINGS ROAD	BTWN N/B & S/B ON/OFF RAMPS	WIDEN ARTERIAL FROM 2 THROUGH LANES TO 6 THROUGH LANES. RECONSTRUCT/WIDEN TO EB OFF - 2 LANES, EB ON - 1 LANE, WB OFF - 1 LANE, WB ON - 2 LANES/WIDEN RAMPS	2018	$28,860
IC/RAMPS	3M0718	79	SANDERSON AVE (SR-79) (PM 29.83 TO 30.83)	AT RAMONA EX-PRESSWAY (SR-79)	BTWN N.RAMONA BLVD AND RA-MONA EXP.	CONSTRUCT NEW 6 LANE I/C AND RAMPS	2030	$66,999
IC/RAMPS	3M0723	79	SR-79 (HEMET BYPASS)	AT SR-74 (FLORIDA AVE)	WEST OF HEMET (BETWEEN WAR-REN AVE AND 1/2 MILE WEST OF SR79/SR74 INTERSECTION)	CONSTRUCT NEW 6 LANE I/C AND RAMPS	2020	$52,982
IC/RAMPS	0E620K	86	SR86S (PM 10.6 TO 11.4)	AT SR195 (AVE 66) NEAR MECCA	BTWN PIERCE ST AND LINCOLN ST	CONSTRUCT NEW 4 LANE IC AND RAMPS	2014	$62,572
IC/RAMPS	3M01CV03	86	SR-86 (PM 17.81 TO 18.81)	AT AVE 54	BTWN SR-111 & FILLMORE	CONSTRUCT 4 LANE BRIDGE/INTERCHANGE AND RAMPS ACROSS SR-86	2030	$107,829
IC/RAMPS	3M0706	86	SR-86S (PM 12.9 TO 13.3)	NEAR COACHELLA, SR-86S	AT AVE. 62	CONSTRUCT A 4 LANE SPREAD DIAMOND IC W/ 4 RAMPS 2 LANE ENTRANCE RAMPS AND 1 LANE EXIT RAMPS (EA 0J530)	2014	$19,485
IC/RAMPS	3M0716	86	SR86S (PM 21.02 TO 22.02)	AT DILLON RD	BTWN WEST OF COACHELLA STORM WATER CHANNEL AND AVENUE 47	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	2020	$36,293
IC/RAMPS	3M0717	86	SR86S (PM 18.1 TO 20.1)	AT AVENUE 52	BTWN COACHEL-LA STORM WATER CHANNEL AND POLK ST	CONSTRUCT IC AND WIDEN FROM 2 TO 6 LANES AND CONSTRUCT RAMPS	2023	$60,143
IC/RAMPS	3M01WT021	91	SR-91 (PM 19.50 TO 20.50)	AT 14TH ST	BTWN OLIVE-WOOD AVE & COMMERCE ST	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	2018	$22,529

RIVERSIDE COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
IC/RAMPS	3M01WT022	91	SR-91 (PM 15.50 TO 15.70)	AT ADAMS ST	BTWN DIANA AVE & INDIANA AVE	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	2020	$32,694
IC/RAMPS	3M01WT023	91	SR-91 (PM 16.15 TO 17.15)	AT MADISON ST	BTWN GARDEN ST & INDIANA AVE	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	2020	$32,694
IC/RAMPS	3M01WT024	91	SR-91(PM 10.6 TO 11.6)	AT MAGNOLIA AVE	BTWN MERCED DR & FILLMORE ST	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	2020	$32,694
IC/RAMPS	3M01WT026	91	SR-91(PM 12.9 TO 13.1)	AT TYLER ST	BTWN DIANA AVE & INDIANA AVE	RECONSTRUCT/WIDEN IC FROM AND RECONSTRUCT/ WIDEN RAMPS	2020	$58,332
IC/RAMPS	3M01WT027	91	SR-91 (PM 20.02 TO 20.53)	AT UNIVERSITY AVE/9TH ST	BTWN LEMON ST & VINE ST	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	2020	$5,834
IC/RAMPS	3M0709	91	SR-91 (PM 17.32 TO 18.32)	AT ARLINGTON AVE	BTWN MT DIABLO TO S/O EAST-BOUND ENTRY RAMPS	RECONSTRUCT/WIDEN IC FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	2018	$28,851
IC/RAMPS	3M0710	91	SR-91(18.36 TO 19.36)	AT CENTRAL AVE	BTWN NEVA PL AND BNSF RR	RECONSTRUCT/WIDEN IC FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	2018	$4,505
IC/RAMPS	3M04MA11	91	SR91/I-15	SR91/I-15 JUNC-TION	SR91/I-15 JUNC-TION	BUILD CONNECTOR IMPROVEMENTS AND COLLECTOR DISTRIBUTION SYSTEM AT I-15	2020	$880,785
IC/RAMPS	3A04A27	215	I-215 (PM 15.95 TO 16.95)	AT GARBANI RD	BTWN HAUN RD & ANTELOPE RD	" CONSTRUCT NEW 4 LANE (2 LNS EAC DIR) AND RAMPS"	2030	$67,425
IC/RAMPS	3A04WT059	215	I-215 (PM 31.83 TO 32.83)	AT OLEANDER AVE	BTWN HARVILL AVE AND WEST-ERN WAY	RECONSTRUCT AND WIDEN OC FROM 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	2018	$25,672
IC/RAMPS	3M0731	215	I-215 (PM 24.7 TO 26.1)	AT ELLIS AVE	BTWN PERRIS VALLEY STORM DRAIN W/O I-215 TO DUNLAP DR E/O I-215	CONSTRUCT NEW 2 LANE IC AND RAMPS (1 LANE)	2030	$118,566
IC/RAMPS	3M04WT009	215	I-215 (PM 23.04 TO 24.04)	AT SR-74 (MAT-THEWS RD)	BTWN CASE RD & TRUMBLE RD	RECONSTRUCT INTERCHANGE/RAMPS	2030	$43,659
IC/RAMPS	3M04WT011	215	I-215 (PM 44.51 TO 45.51)	AT CENTER ST	BTWN STEPHENS AVE & IOWA AVE	RECONSTRUCT INTERCHANGE/RAMPS	2030	$49,896

RIVERSIDE COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
IC/RAMPS	3M04WT012	215	I-215 (PM 43.40 TO 44.40)	AT COLUMBIA AVE	BTWN PRIMER ST & BRANDYWINE AVE	RECONSTRUCT INTERCHANGE/RAMPS	2020	$32,073
IC/RAMPS	3M04WT014	215	I-215 (PM 27.38 TO 28.38)	AT NUEVO RD	BTWN A ST & E. FRONTAGE RD	RECONSTRUCT INTERCHANGE, ADD CHANNELIZATION LANES ON RAMPS, MODIFY TRAFFIC SIGNALS	2018	$23,152
IC/RAMPS	3M04WT016	215	I-215/SR-60 (PM 40.99 TO 41.99)	AT UNIVERSITY AVE	BTWN IOWA AVE & CANYON CREST DR	RECONSTRUCT INTERCHANGE/RAMPS	2020	$10,256
IC/RAMPS	3M0708	215	I-215 (PM 30.9)	AT RAMONA EXPWY	BTWN RAMPS	RECONSTRUCT/WIDEN FROM 4 TO 8 LANES, WIDEN SB AND NB EXIT RAMPS AT I-214/RAMONA EXPWY IC AND OC, CONSTRUCT DUAL LEFT-TURN LANES AT THE EXIT RAMPS TEMINI	2018	$41,907
IC/RAMPS	3M0719	215	I-215 (PM 20.34 TO 21.34)	AT MCCALL BLVD	BTWN BRADLEY RD & ENCANTO DR	RECONSTRUCT/WIDEN IC FROM 4 TO 6 LANES AND RECONSTRUCT RAMPS	2030	$33,501
IC/RAMPS	3M0724	215	I-215 (PM 35.92 TO 36.92)	AT ALESSANDRO BLVD	BTWN BNSF & OLD 215 FRONT-AGE ROAD	WIDEN/RECONSTRUCT IC FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	2018	$4,745
IC/RAMPS	3M0725	215	I-215	AT MID-COUNTY PARKWAY	BTWN RAMPS	CONSTRUCT NEW 6 LANE IC AND RAMPS	2020	$110,899
ITS	3ITS07	0	ITS	COUNTYWIDE		ITS LUMP SUM	ONGOING	$271,608
ITS	3ITS0701	0	INTELLIGENT TRANS-PORTATION SYSTEM (ITS) EQUIPMENT	COACHELLA VALLEY		PURCHASE AND INSTALL VARIOUS ITS EQUIPMENT SOFTWARE AND HARDWARE FOR EXISTING AND EXPANSION SERVICE, AS WELL AS FOR PLANNING RELATED ACTIVITIES FOR BUS STOP IMPROVEMENT PROJECT.	2009	$1,054
MIXED FLOW	3C01MA02	0	CETAP - MORENO VALLEY TO SAN BERNARDINO COUNTY	MORENO VALLEY	SAN BERNARDINO COUNTY	CONSTRUCT NEW NORTH-SOUTH WESTERN COUNTY TRANSPORTATION CORRIDOR	2030	$5,488,952
MIXED FLOW	3M01SH06	10	I-10	MONTEREY AVE (44.5)	DILLON RD (58.9)	ADD 1 MF LANE EACH DIRECTION (EA 0A030K)	2030	$221,297
MIXED FLOW	3M07A	15	I-15	BUNDY CANYON	I-15/I-215 IC	I-15 ADD 1 MF LANE EACH DIR, BUNDY CANYON TO I-15/I-215 INTERCHANGE (FROM 3 TO 4 MF EACH DIR)	2014	$135,601

RIVERSIDE COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
MIXED FLOW	3M01MA09	71	SR-71	SR-91	SAN BERNARDINO COUNTY LINE	WIDEN TO 3 MF LANES EACH DIRECTION	2035	$534,808
MIXED FLOW	3M04MA10	91	SR-91	PIERCE STREET	ORANGE COUNTY LINE	ADD 1 MF LANES EACH DIRECTION	2018	$503,258
MIXED FLOW	3M0738	215	I-215	MURRIETA HOT SPRINGS ROAD	I-15/215 INTER-CHANGE	CONSTRUCT A THIRD MIXED FLOW LANE IN EACH DIRECTION	2014	$17,226
NON-MO-TORIZED	3NL04	0	NON-MOTORIZED	COUNTYWIDE		VARIOUS PEDESTRIAN AND BIKEWAY NON-MOTOR-IZED IMPROVEMENT PROJECTS	ONGOING	$70,386
O&M	3OM0701	0	OPERATIONS & MAINTE-NANCE	COUNTYWIDE		STATE HIGHWAY, ARTERIAL, AND TRANSIT PRESERVA-TION/MAINTENANCE AND OPERATIONS	ONGOING	$753,606
OTHER	3EL04	0	ECONOMIC DEVELOP-MENT	WESTERN COUNTY		INFRASTRUCTURE & FACILITY IMPROVEMENTS INCENTIVES	ONGOING	$192,513
TDM	3RL04	0	RIDESHARE	COUNTYWIDE		RCTC COMMUTER ASSISTANCE PROGRAM: RIDE-SHARE AND OTHER INCENTIVE PROGRAMS, TDM (TELECOMMUTE, PARK AND RIDE, ETC.)	ONGOING	$188,020
TOLL	3HL0402	15	I-15	SR74	SAN BERNARDINO COUNTY LINE	BUILD HOV/HOT LANES: 2 HOV3+/HOT EACH DIR FROM SR-74 TO SAN BERNARDINO COUNTY LINE	2020	$873,433
TOLL	3HL0401	91	SR-91	ORANGE COUNTY LINE	I-15	BUILD/EXTEND 4 HOT LANES (2 IN EACH DIRECTION) BUILD HOT EB SR91 TO SB I-15 AND NB I-15 TO WB SR91 CONNECTOR LANES	2020	$751,118
TRANSIT - BRT	3TR04A, 3TR04B	0	BUS RAPID TRANSIT	MAGNOLIA COR-RIDOR PHASE 1 (CITY OF RIVER-SIDE)	MORENO VAL-LEY CORRIDOR PHASE 2 (CITY OF MORENO VALLEY)	BUS RAPID TRANSIT (BRT): 65 INTERSECTIONS RET-ROFITTED FOR SIGNAL PRIORITY FOR TRANSIT AND AUTOMATED TRAVEL INFORMATION AT 15 BUS STOPS	2018	$3,149
TRANSIT - BRT	3TR04C	0	BUS RAPID TRANSIT	COACHELLA VALLEY		IMPLEMENT BUS RAPID SERVICE/BRT ON HIGHWAY 111 BASED ON RECOMMENDATIONS IN THE COM-PREHENSIVE OPERATIONAL ANALYSIS CONDUCTED IN 2005/06. PROJECT WILL ENTAIL COMPLETING FEASIBILITY STUDY AND WORKING WITH THE LOCAL JURISDICTION ON VARIOUS ACTIVITIES PRIOR TO IMPLEMENTING PROJECT.	2018	$19,523

RIVERSIDE COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
TRANSIT - BUS	3TL104	0	ELDERLY & DISABLED ASSISTANCE	COACHELLA VALLEY		IMPROVE PARATRANSIT SERVICES FOR THE ELDERLY & PERSONS WITH DISABILITIES	ONGOING	$29,149
TRANSIT - BUS	3TL1507	0	ENHANCED COMMUTER LINK - EAST CORRIDOR	WESTERN RIVER-SIDE COUNTY	SAN DIEGO, ORANGE, AND LOS ANGELES COUN-TIES	PROPOSED COMMUTER LINK SERVICE AT THE EASTERN SIDE OF I-215 CORRIDOR TO SAN DIEGO AND NEIGHBORING COUNTIES OF ORANGE AND LOS ANGELES THROUGH METROLINK SERVICE CONNEC-TIONS.	2010	$19,237
TRANSIT - BUS	3TL1607	0	ENHANCED COMMUTER LINK - WEST CORRIDOR	WESTERN RIVER-SIDE COUNTY	SAN DIEGO, ORANGE, AND LOS ANGELES COUN-TIES	PROPOSED COMMUTER LINK SERVICE AT THE WESTERN SIDE OF I-15 CORRIDOR TO SAN DIEGO AND NEIGHBORING COUNTIES OF ORANGE AND LOS ANGELES THROUGH METROLINK CONNECTIONS. A PROPOSED EXPANSION AN IMPROVEMENT OF THE EXISTING COMMUTER SERVICE FROM MURRIETA/TE-MECULA INCLUDING THE CITIES OF PERRIS, MORENO VALLEY, NORCO, AND CORONA	2010	$8,783
TRANSIT - BUS	3TL504	0	BUS PURCHASES	COACHELLA VALLEY		PURCHASE 15 ADDITIONAL EXPANSION BUSES, ROUTES TBD. THEY WILL INCLUDE 60FT, 45FT, 40FT, 32FT, AND 30FT BUSES.	2010	$6,522
TRANSIT - BUS	3TL507	0	BUS PURCHASES	COACHELLA VALLEY		PURCHASE ADDITIONAL REPLACEMENT BUSES FOR FIXED ROUTE AND PARATRANSIT SERVICES. THE ADDITIONAL VEHICLES WILL CONSIST OF 60FT, 45FT, 40FT, 32 FT, AND 30FT BUSES.	ONGOING	$13,174
TRANSIT - BUS	3TL907	0	EXPRESS/COMMUTER BUS SERVICE	COACHELLA VALLEY	RIVERSIDE	IMPLEMENT EXPRESS BUS SERVICE TO CONNECT COMMUTERS TO METROLINK SERVICE IN RIVERSIDE, AS WELL AS EXPRESS BUS SERVICE ALONG I-10.	2018	$4,668
TRANSIT - COMMUT-ER RAIL	3CR104	0	METROLINK COMMUTER RAIL	COUNTYWIDE		METROLINK IMPROVEMENTS (TRACK, ROLLING STOCK)	ONGOING	$360,527
TRANSIT - COMMUT-ER RAIL	3CR204	0	METROLINK COMMUTER RAIL	IEOC & 91 LINES		METROLINK RAIL STATION IMPROVEMENTS	ONGOING	$47,467

RIVERSIDE COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
TRANSIT - COMMUT-ER RAIL	3CR0701	0	RIVERSIDE LINE, 91 LINE, & IEOC LINE	THROUGHOUT RIVERSIDE, ORANGE COUNTY, & LOS ANGELES COUNTY		METROLINK COMMUTER RAIL EXISTING LINES SER-VICES EXPANSION - RIVERSIDE, 91, AND IEOC LINES	2035	$1,742,025
TRANSIT - COMMUT-ER RAIL	3CR0702	0	PERRIS VALLEY LINE	CITY OF PERRIS	CITY OF SAN JACINTO	METROLINK PERRIS VALLEY LINE COMMUTER RAIL EXTENSION FROM PERRIS TO SAN JACINTO (~16.5 MILES), STATIONS AT WINCHESTER RD (SR-79 @ ASBURY ST), HEMET AIRPORT (SANDERSON AVE @ STETSON RD), SAN JACINTO (STATE ST @ 7TH ST)	2030	$276,465
TRANSIT - COMMUT-ER RAIL	3CR0703	0	PERRIS VALLEY LINE	CITY OF PERRIS	CITY OF TE-MECULA	METROLINK PERRIS VALLEY LINE COMMUTER RAIL EXTENSION FROM PERRIS TO TEMECULA (~16.5 MILES), STATIONS AT NEWPORT RD (@ I-215), CLINTON KEITH RD (@ I-215), AND WINCHESTER RD (SR-79 @ I-215)	2030	$708,017
TRANSIT - INTER-MODAL	3TC04TR1	0	TRANSIT CENTER	BANNING/ BEAU-MONT/ CALIMESA AREA		TRANSIT CENTER	2020	$7,862
TRANSIT - INTER-MODAL	3TC04TR10	0	TRANSIT CENTER	LAKE ELSINORE		TRANSIT CENTER	2020	$7,862
TRANSIT - INTER-MODAL	3TC04TR3	0	TRANSIT CENTER	COACHELLA VALLEY		CONSTRUCT 4 TRANSIT CENTERS IN THE COACHELLA VALLEY, LOCATIONS TBD	2012	$21,002
TRANSIT - INTER-MODAL	3TC04TR6	0	TRANSIT CENTER	MENIFEE (SOUTH-WESTERN RIVER-SIDE COUNTY)		TRANSIT CENTER	2020	$7,862
TRANSIT - INTER-MODAL	3TC04TR8	0	TRANSIT CENTER	NORTHWEST RIVERSIDE COUNTY ZONE - EAST VALE/ NORCO		TRANSIT CENTER	2020	$7,862
TRANSIT - INTER-MODAL	3TC0701	0	TRANSIT CENTER BRIDGE	CORONA		BRIDGE TO CONNECT THE TRANSIT CENTER TO THE METROLINK LOADING AREA	2017	$1,968

RIVERSIDE COUNTY RTP PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLETION BY*	PROJECT COST ($1,000'S)
TRANSIT - INTERMODAL	3TC0702	0	TRANSIT CENTER ENHANCEMENTS	RIVERSIDE, CORONA, TEMECULA, HEMET, MORENO VALLEY, BANNING/BEUMONT, NORCO, MENIFEE, LAKE ELSINORE		TRANSIT CENTER ENHANCEMENT - LANDSCAPING, STREET SCRAPING, BUS SHELTERS	2020	$19,297
TRANSIT - INTERMODAL	3TC0703	0	PARK & RIDE LOTS	COACHELLA VALLEY		ACQUIRE PROPERTY AND CONSTRUCT 3 PARK AND RIDE LOTS	2012	$29,267
TRANSIT - INTERMODAL	3TL0407	0	TRANSFER LOCATION IMPROVEMENT	COACHELLA VALLEY		FACILITY IMPROVEMENT TO ACCOMMODATE ADDITIONAL SERVICE ROUTES BASED ON RECOMMENDATION FROM COMPREHENSIVE OPERATIONAL ANALYSIS	2012	$8,780
TRANSIT - INTERMODAL	3TL1707	0	METROLINK COMMUTER RAIL	IEOC & 91 LINES		METROLINK CONSTRUCT NEW STATION AT 3360 VAN BUREN BLVD IN RIVERSIDE (PARKING 550 SPACES)	2035	$38,052
TRANSIT - OTHER	3TC04TR11	0	FACILITY ACQUISITION/ CONSTRUCTION	THOUSAND PALMS		PROPERTY ACQUIRED IN FY 2002 TO CONSTRUCT NEW ADMINISTRATIVE/MAINTENANCE FACILITY. SUNLINE PLANS TO CONDUCT AN ENVIRONMENTAL ASSESSMENT PRIOR TO OBTAINING PERMITS FOR CONSTRUCTION OF FACILITY.	2010	$13,044
TRANSIT - OTHER	3TL1307	0	SUPPORT VEHICLES	COACHELLA VALLEY		PURCHASE VEHICLES THAT WILL BE USED AS RELIEF VEHICLES FOR SUNLINE DRIVERS AT THE BEGINNING OR ENDING OF THEIR SHIFTS IN MID-ROUTE.	2009	$158
TRANSIT - OTHER	3TL1007	0	PREVENTIVE MAINTENANCE	COACHELLA VALLEY		PURCHASE VEHICLE PARTS AND PAY FOR LABOR COST ASSOCIATED WITH ONGOING MAINTENANCE OF REVENUE VEHICLES	2010	$1,665
TRANSIT - OTHER	3TL1107	0	PREVENTIVE MAINTENANCE	COACHELLA VALLEY		PURCHASE VEHICLE PARTS AND PAY FOR LABOR COST ASSOCIATED WITH ONGOING MAINTENANCE OF REVENUE VEHICLES	2009	$1,054
TRANSIT - OTHER	3TL607	0	PURCHASE AMENITIES	COACHELLA VALLEY		PURCHASE MORE AMENITIES FOR INSTALLATION AT BUS STOPS THROUGHOUT THE SERVICE AREA BASED ON RECOMMENDATIONS FROM THE COA.	2010	$5,953
TRANSIT - OTHER	3TL707	0	GFI FAREBOXES, SMARTCARDS, & SECURITY SYSTEMS	COACHELLA VALLEY		INSTALL SECURITY SYSTEMS IN SUNLINE BUSES AND ACQUIRE NEW FAREBOXES WITH SMARTCARD TECHNOLOGY AND CAPABILITIES.	2012	$5,140

RIVERSIDE COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
TRANSIT O&M	3TL1207	0	MISCELLANEOUS MAINTE-NANCE EQUIPMENT	COACHELLA VALLEY		PURCHASE VARIOUS MAINTENANCE EQUIPMENT FOR THE MAINTENANCE DEPARTMENT.	2009	$211
TRANSIT O&M	3TL307	0	TRANSIT CENTER MAIN-TENANCE	N/A	N/A	MAINTENANCE OF NINE TRANSIT CENTERS	2027	$35,184
TRANSIT O&M	3TL807	0	ATIS MAINTENANCE	N/A	N/A	SYSTEM MAINTENANCE	ONGOING	$7,037
TRUCK CLIMBING	3TK04MA12	10	I-10	SAN BERNARDINO COUNTY LINE (R0.0)	I-10/SR60 JCT	ADD EASTBOUND TRUCK CLIMBING LANE	2020	$65,275
TRUCK CLIMBING	3TK04MA13	60	SR-60	BADLANDS AREA EAST OF MORENO VALLEY (NEAR GIL-MAN SPRINGS RD)	BADLANDS AREA - WEST OF SR-60-/I-10 JCT	ADD EASTBOUND TRUCK CLIMBING LANE	2018	$71,025

* For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

RIVERSIDE COUNTY ARTERIAL PROJECTS

In the process of developing the 2008 RTP, the Riverside County Transportation Commission provided to SCAG a list of arterial improvement projects planned for implementation in Riverside County within the timeframe of the RTP. The projects in this list are included in the 2008 RTP subject to available funding as identified in the Riverside County RTP Projects list.

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A04A23	"A" STREET	NUEVO RD	4TH ST	WIDEN FROM 2 TO 4 LANES	2012	$3,692
3A04WT092	11TH ST/CASE RD	PERRIS BLVD	GOETZ RD	WIDEN FROM 2 TO 4 LANES	2007	$602
3A04A05	14TH AVE	RIVER VALLEY RD	7TH ST	WIDEN EXISTING BRIDGE AT D-CANAL FROM 2 TO 4 LANES	2012	$2,136
3A04WT086	1ST ST	PARKRIDGE AVE	HAMNER AVE	WIDEN FROM 2 TO 4 LANES	2012	$1,989
3A04WT087	2ND ST	RIVER RD	HAMNER AVE	WIDEN FROM 2 TO 4 LANES	2018	$6,503
3A04A08	7TH ST	HOBSONWAY	RICE ST	WIDEN FROM 2 TO 4 LANES	2008	$770

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07261	A ST	SAN JACINTO ST	4TH ST	WIDEN FROM 2 TO 4 LANES	2030	$3,594
3A07062	ADAMS ST	BEFORE AND AFTER BRIDGE AT WHITEWATER CHANNEL		CONSTRUCT NEW 4 LANE BRIDGE	2012	$8,686
3A01WT049	ALESSANDRO BLVD	I-215	PERRIS BLVD	WIDEN FROM 4 TO 6 LANES	2012	$14,275
3A01WT050	ALESSANDRO BLVD	PERRIS BLVD	NASON ST	WIDEN FROM 2 TO 6 LANES	2012	$17,385
3A01WT051	ALESSANDRO BLVD	NASON ST	GILLMAN SPRINGS	WIDEN FROM 2 TO 4 LANES	2018	$21,041
3A01WT123	ALESSANDRO BLVD	TRAUTWEIN RD	I-215	WIDEN FROM 4 TO 6 LANES	2030	$12,133
3A04A20	ARABY DR	ANZA TR	STAGECOACH RD	CONSTRUCT NEW BRIDGE CROSSING OVER PALM CANYON WASH	2030	$52,089
3A01WT124	ARCHIBALD AVE	SAN BERNARDINO COUNTY LINE	RIVER RD	WIDEN FROM 2 TO 4 LANES	2030	$46,226
3A01WT112	ARLINGTON AVE	MAGNOLIA AVE	ALESSANDRO BLVD	WIDEN FROM 4 TO 6 LANES	2018	$17,996
3A04WT125	ARMSTRONG RD	SAN BERNARDINO COUNTY LINE	VALLEY WAY	WIDEN FROM 2 TO 4 LANES	2030	$12,160
3A07047	AT GRAHAM ST	SUNNYMEAD BLD	HEMLOCK AVE	CONSTRUCT 4 LANE OC OVER SR60	2030	$18,839
3A04A13	AUTO CENTER DR (CA-SINO DR)	FRANKLIN ST	DIAMOND DR (RAILROAD CYN RD)	WIDEN BRIDGE OVER SAN JACINTO RIVER FROM 2 TO 4 LANES	2018	$5,417
3A07057	AVE 48	JACKSON ST	VAN BUREN ST (CENTER LINE)	WIDEN FROM 2 TO 6 LANES	2012	$9,232
3A07092	AVE 48	GRADE SEPARATION AT HWY 111/SPRR		WIDEN FROM 4 TO 6 LANES	2023	$9,950
3A07108	AVE 48	VAN BUREN ST	W OF HWY 86	WIDEN FROM 2 TO 6 LANES	2012	$4,581
3A07167	AVE 48	INTERSECTION OF AVE 48 AND HWY 86		WIDEN FROM 4 TO 6 LANES	2014	$139
3A07172	AVE 48	VAN BUREN ST TO W	W OF HWY 86	WIDEN FROM 2 TO 6 LANES	2018	$4,551

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A01CV002	AVE 50	BRIDGE. AT ALL AMER. CANAL		CONSTRUCT 4-LANE BRIDGE	2009	$3,798
3A01CV004	AVE 50	SR-86S TO I-10	I-10	WIDEN FROM 2 TO 4 LANES	2012	$29,068
3A01CV005	AVE 50	VAN BUREN ST	HARRISON ST	WIDEN FROM 2 TO 4 LANES	2014	$9,312
3A04CV113	AVE 50	HWY 111 TO SR-86S	SR-86S	WIDEN FROM 2 TO 4 LANES	2014	$102,837
3A07039	AVE 50	JACKSON ST	VAN BUREN ST	WIDEN FROM 2 TO 4 LANES	2014	$13,052
3A07070	AVE 50	JEFFERSON STREET	MADISON STREET	WIDEN FROM 2 TO 4 LANES	2012	$8,168
3A01CV010	AVE 52	JEFFERSON STREET	MADISON STREET INCL. BRIDGE @ CV CANAL	WIDEN FROM 2 TO 4 LANES	2009	$7,905
3A01CV014	AVE 52	CALHOUN ST	FREDRICK ST	WIDEN FROM 2 TO 6 LANES	2012	$9,485
3A01CV015A	AVE 52	FREDRICK ST	HARRISON ST	WIDEN FROM 2 TO 6 LANES	2014	$2,991
3A01CV015B	AVE 52	HARRISON ST	HWY 111	WIDEN FROM 2 TO 6 LANES	2018	$1,979
3A01CV015C	AVE 52	HWY 111	SR-86S	WIDEN FROM 2 TO 6 LANES	2030	$196,478
3A07094	AVE 52	GRADE SEPARATION AT HWY 111/SPRR		WIDEN FROM 2 TO 6 LANES	2018	$7,745
3A07098	AVE 52	JACKSON ST	CALHOUN ST	WIDEN FROM 2 TO 6 LANES	2014	$5,707
3A07164	AVE 52	INTERSECTION OF AVE 52 AND HWY 111		WIDEN FROM 2 TO 6 LANES	2018	$210
3A07165	AVE 52	INTERSECTION OF AVE 52 AND SR-86		WIDEN FROM 2 TO 6 LANES	2018	$185
3A07173	AVE 52	JACKSON ST	CALHOUN ST	WIDEN FROM 2 TO 6 LANES	2030	$7,170
3A07174	AVE 52	CALHOUN ST	FREDRICK ST	WIDEN FROM 2 TO 6 LANES	2030	$12,035
3A01CV016	AVE 54	VAN BUREN ST	HARRISON ST	WIDEN FROM 2 TO 4 LANES	2018	$12,101
3A01CV017	AVE 54	HARRISON ST	TYLER ST	WIDEN FROM 2 TO 4 LANES	2018	$12,988
3A01CV018	AVE 54	TYLER ST	HWY 111	WIDEN FROM 2 TO 4 LANES	2018	$5,809
3A07011	AVE 54	HWY 111	FILLMORE	CONSTRUCT 4-LANE BRIDGE	2018	$55,757
3A01CV023	AVE 56 / AIRPORT BLVD	0.25 MI. W OF VAN BUREN ST	HARRISON ST	WIDEN FROM 2 TO 4 LANES	2023	$21,601

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A04CV027	AVE 56 / AIRPORT BLVD	SPRR	E SIDE OF BR. AT COACHELLA VLLY STORM CHNL	WIDEN FROM 2 TO 4 LANES	2023	$3,063
3A07175	AVE 56 / AIRPORT BLVD	MONROE ST	JACKSON ST	WIDEN FROM 2 TO 4 LANES	2023	$10,889
3A07176	AVE 56 / AIRPORT BLVD	JACKSON ST	0.25 MILES W OF VAN BUREN ST	WIDEN FROM 2 TO 6 LANES	2023	$6,472
3A07177	AVE 56 / AIRPORT BLVD	HARRISON ST	TYLER ST	WIDEN FROM 2 TO 6 LANES	2020	$7,783
3A07178	AVE 56 / AIRPORT BLVD	TYLER ST	POLK ST	WIDEN FROM 2 TO 6 LANES	2018	$6,832
3A07179	AVE 56 / AIRPORT BLVD	POLK ST	HWY 111	WIDEN FROM 2 TO 6 LANES	2014	$2,446
3A07180	AVE 56 / AIRPORT BLVD	GRADE SEPARATION OVER HWY 111 AND SPRR	BTWN PALM ST AND EAST SIDE OF COACHELLA STORM CHNL	WIDEN FROM 2 TO 6 LANES INCLUDING GRADE SEPARATION OVER UPRR	2023	$8,084
3A07181	AVE 56 / AIRPORT BLVD	0.25 MI. W OF VAN BUREN ST	HARRISON ST	WIDEN FROM 2 TO 6 LANES	2023	$18,161
3A07182	AVE 56 / AIRPORT BLVD	SPRR TO E SIDE OF BR. AT COACHELLA VLLY STORM CHNL		WIDEN FROM 2 TO 6 LANES	2030	$4,075
3A07183	AVE 56 / AIRPORT BLVD	AVE 56 SR-86S IC	BTWN DESERT CACTUS DR AND 57TH AVE	WIDEN FROM 0 TO 6 LANES (3 LANE (1 EA DIR + MEDIAN LN) IC IN RTIP IN RIV060101)	2030	$63,478
3A07078	AVE 58	VAN BUREN ST	HARRISON ST (SR-86)	WIDEN FROM 2 TO 4 LANES	2023	$11,677
3A07102	AVE 58	JEFFERSON ST	MADISON ST	WIDEN FROM 2 TO 4 LANES	2010	$4,869
3A07106	AVE 58	MADISON ST	MONROE ST	WIDEN FROM 2 TO 4 LANES	2010	$4,572
3A07184	AVE 58	MONROE ST	JACKSON ST	WIDEN FROM 2 TO 4 LANES	2023	$12,611
3A07185	AVE 58	JACKSON ST	VAN BUREN ST	WIDEN FROM 2 TO 4 LANES	2020	$11,517
3A07186	AVE 62	AVE 62 SR-86S IC	BTWN W/O SR111 TO BUCHANAN ST	WIDEN FROM 0 TO 6 LANES	2023	$47,983
3A07187	AVE 62	MONROE ST	JACKSON ST	WIDEN FROM 2 TO 6 LANES	2030	$20,086

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07188	AVE 62	JACKSON ST	VAN BUREN ST	WIDEN FROM 2 TO 6 LANES	2030	$22,830
3A07189	AVE 62	VAN BUREN ST	HARRISON ST	WIDEN FROM 2 TO 6 LANES	2030	$21,510
3A07190	AVE 62	HARRISON ST	TYLER ST	WIDEN FROM 2 TO 6 LANES	2030	$16,940
3A07191	AVE 62	TYLER ST	POLK ST	WIDEN FROM 2 TO 6 LANES	2030	$19,296
3A07192	AVE 62	POLK ST	FILLMORE ST	WIDEN FROM 2 TO 6 LANES	2030	$14,076
3A07193	AVE 62	FILLMORE ST	PIERCE ST	WIDEN FROM 2 TO 6 LANES	2023	$12,019
3A07194	AVE 62	PIERCE ST	SR86S	WIDEN FROM 2 TO 6 LANES	2020	$7,889
3A07195	AVE 66	AVE 66 SR-86S IC	BTWN W/O BUCHANAN ST AND E/O SR86S	WIDEN FROM 0 TO 6 LANES	2030	$56,358
3A07196	AVE 66	AVE 66 BR./LOW WATER XING	BTWN W/O COACHELLA VALLEY STORM WATER CHNL AND PERCE ST	WIDEN FROM 2 TO 6 LANES	2030	$4,533
3A07017	AVENUE 44	LOW WATER XING	DILLON RD	WIDEN FROM 4 TO 4 LANES	2009	$21,472
3A07029	AVENUE 44	MONROE ST	LOW WATER XING	WIDEN FROM 2 TO 4 LANES	2009	$13,581
3A07137	AVENUE 44	AVE. 44 BR. / LOW WATER XING		WIDEN FROM 2 TO 4 LANES	2009	$2,553
3A07025	AVENUE 48	JEFFERSON ST	ALL AMERICAN CANAL	WIDEN FROM 4 TO 6 LANES	2012	$19,260
3A07043	AVENUE 48	HJORTH ST	JACKSON ST	WIDEN FROM 2 TO 6 LANES	2012	$12,492
3A07076	AVENUE 48	JACKSON ST	VAN BUREN ST (CENTER LINE)	WIDEN FROM 2 TO 6 LANES	2012	$8,198
3A07117	AVENUE 48	VAN BUREN ST	W OF HWY 86	WIDEN FROM 2 TO 6 LANES	2009	$3,860
3A07166	AVENUE 48	INTERSECTION OF AVE 48 AND HWY 86		INTERSECTION IMPROVEMENTS	2009	$128
3A01CV003	AVENUE 50	JEFFERSON ST	MADISON ST (EXCL BR. AT ALLAMERICAN CANAL)	WIDEN FROM 2 TO 4 LANES	2012	$9,874
3A07052	AVENUE 50	MONROE ST	JACKSON ST	WIDEN FROM 2 TO 4 LANES	2012	$10,809
3A07056	AVENUE 50	MADISON ST	MONROE ST	WIDEN FROM 2 TO 4 LANES	2012	$10,087
3A07065	AVENUE 50	JACKSON ST	VAN BUREN ST (CENTER LINE)	WIDEN FROM 2 TO 4 LANES	2012	$9,323

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A01CV011	AVENUE 52	MADISON ST	MONROE ST	WIDEN FROM 2 TO 4 LANES	2014	$10,067
3A01CV012	AVENUE 52	MONROE ST	JACKSON ST	WIDEN FROM 2 TO 4 LANES	2014	$10,294
3A07115	AVENUE 52	JACKSON ST	CALHOUN ST	WIDEN FROM 2 TO 6 LANES	2014	$4,664
3A04A10	BARNARD ST	DATE ST	INTAKE BLVD	CONSTRUCT/EXTEND 2 LANE ARTERIAL	2018	$2,740
3A04WT126	BAXTER RD	I-15	CENTRAL ST	WIDEN FROM 2 TO 4 LANES	2030	$35,555
3A01WT127	BELLGRAVE AVE	CANTU-GALLEANO RANCH RD	VAN BUREN BLVD	WIDEN FROM 2 TO 4 LANES	2030	$9,410
3A01WT128	BENTON RD	SR-79	EASTERN BYPASS	WIDEN FROM 2 TO 4 LANES	2030	$14,169
3A07082	BOB HOPE DR	GERALD FORD	DINAH SHORE DR	WIDEN FROM 4 TO 6 LANES	2014	$7,225
3A07109	BOB HOPE DR	DINAH SHORE	RAMON RD	WIDEN FROM 4 TO 6 LANES	2012	$4,506
3A07138	BOB HOPE DR	FRANK SINATRA DR	GERALD FORD DR	WIDEN FROM 4 TO 6 LANES	2012	$2,619
3A07197	BOB HOPE DR	DINAH SHORE	RAMON RD	WIDEN FROM 2 TO 6 LANES	2014	$10,769
3A07198	BOB HOPE DR	RAMON RD	I-10	WIDEN FROM 0 TO 6 LANES	2012	$1,922
3A04WT129	BRIGGS RD	SR-74 (PINACATE RD)	SIMPSON RD	CONSTRUCT 4 LANE ARTERIAL	2030	$29,475
3A04WT130	BRIGGS RD	SIMPSON RD	NEWPORT RD	CONSTRUCT 4 LANE ARTERIAL	2030	$34,446
3A04WT131	BRIGGS RD	NEWPORT RD	SCOTT RD	WIDEN FROM 2 TO 4 LANES	2030	$17,943
3A04WT132	BRIGGS RD	SCOTT RD	SR-79 (WINCHESTER RD)	CONSTRUCT 4 LANE ARTERIAL	2030	$37,982
3A01WT133	BUNDY CANYON RD	I-15	MURRIETA RD	"WIDEN FROM 2 TO 4 LANES "	2010	$14,315
3A01WT134	BUNDY CANYON RD	MISSION TRAIL	I-15	WIDEN FROM 2 TO 4 LANES	2030	$7,209
3A01WT135	BUTTERFIELD STAGE RD	RANCHO CALIFORNIA RD	SR-79 (CONSTANCE)	WIDEN FROM 2 TO 4 LANES	2020	$32,750
3A01WT136	BUTTERFIELD STAGE RD+ POURROY RD	MURRIETA HOT SPRINGS RD	SR-79 (WINCHESTER)	CONSTRUCT 4 LANE ARTERIAL	2018	$50,453
3A07012	BUTTERFIELD STAGE ROAD (BSR)	RANCHO CALIFORNIA ROAD	MURRIETA HOT SPRINGS ROAD(MHSR)	CONSTRUCT 0 TO 4 LANE ARTERIAL (APPROX. 2.913 MILES OF ROADWAY)	2012	$37,223
3A07015	BUTTERFIELD STAGE ROAD (BSR)	RANCHO CALIFORNIA ROAD	SR-79 SOUTH (CONSTANCE)	WIDEN FROM 2 TO 4 LANES	2012	$24,421

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07144	CACTUS AVE - SI	GRAHAM ST	HEACOCK ST	WIDEN FROM 4 TO 6 LANES STREET IMPROVEMENT	2007	$1,111
3A04WT137	CAJALCO RD	TEMSECAL CANYON RD	HARLEY JOHN RD	WIDEN FROM 2 TO 4 LANES	2030	$79,865
3A04WT138	CAJALCO RD	HARLEY JOHN RD	I-215	WIDEN FROM 2 TO 6 LANES	2030	$71,630
3A04WT139	CANTARINI RD	RECHE CANYON RD	PIGEON PASS RD	CONSTRUCT 2 LANE ARTERIAL	2030	$14,529
3A04WT140	CANTU-GALLEANO RANCH RD (AKA GALENA ST)	WINEVILLE RD	BELLGRAVE AVE	CONSTRUCT 4 LANE ARTERIAL	2020	$18,812
3A07107	CANYON CREST DR	COUNTRY CLUB	CENTURY	WIDEN 2 TO 4 LANES	2010	$4,477
3A07262	CASE RD	GOETZ RD	I-215	WIDEN FROM 2 TO 4 LANES	2030	$7,189
3A07033	CATHEDRAL CYN DR	BR. AT WHITEWATER CHNL		CONSTRUCT 4 LANE BRIDGE	2018	$15,014
3A07099	CATHEDRAL CYN DR	TERRACE RD	E PALM CYN	WIDEN FROM 2 TO 4 LANES	2018	$6,774
3A07287	CAWSTON AVE	ESPLANADE AVE	RAMONA EXPWAY	CONSTRUCT 4 LANES	2030	$30,808
3A04WT141	CENTER ST	MT VERNON AVE	RECHE CANYON RD	CONSTRUCT 4 LANE ARTERIAL	2030	$40,151
3A01WT114	CENTRAL AVE	MAGNOLIA AVE	SR91	WIDEN FROM 4 TO 6 LANES BTWN SR-91 AND MAGNOLIA	2018	$3,641
3A04WT142	CENTRAL ST	BAXTER RD	PALOMAR ST	WIDEN FROM 2 TO 4 LANES	2030	$5,555
3A04WT143	CENTRAL ST	GRAND AVE	PALOMAR ST	WIDEN FROM 2 TO 4 LANES	2030	$3,841
3A07199	CHASE SCHOOL RD	I-10	RAMON RD	WIDEN FROM 0 TO 4 LANES	2020	$3,340
3A04WT144	CHERRY VALLEY BLVD	DESERT LAWN DR	NOBLE ST	"WIDEN FROM 2 TO 4 LANES "	2030	$19,054
3A04WT145	CHERRY VALLEY BLVD	NOBLE ST	HIGHLAND SPRINGS AVE	CONSTRUCT 4 LANE ARTERIAL	2030	$20,860
3A01WT071	CLINTON KEITH RD	I-15	COPPERCRAFT	WIDEN FROM 2 TO 6 LANES	2014	$5,902
3A01WT072	CLINTON KEITH RD	COPPERCRAFT	TOULON DR	WIDEN FROM 4 TO 6 LANES	2020	$2,840
3A01WT073	CLINTON KEITH RD	I-215	MEADOWLARK LN	WIDEN FROM 4 TO 6 LANES	2020	$3,524
3A01WT083	CLINTON KEITH RD	TOULON DR	I-215	WIDEN FROM 2 TO 6 LANES	2009	$37,416

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A04WT146	CLINTON KEITH RD	MEADOWLARK LN	SR-79	CONSTRUCT 6 LANE ARTERIAL	2020	$72,902
3A04WT147	CLOVERDALE RD	ARCHIBALD AVE	HAMNER AVE	WIDEN FROM 2 TO 4 LANES	2030	$10,593
3A07256	COOK ST	FRED WARING	HWY 111	WIDEN FROM 4 TO 5 LANES	2012	$525
3A07299	COOK ST	BR. AT WHITEWATER CHNL		WIDEN FROM 4 TO 6 LANES	2023	$18,197
3A07300	COOK ST	FRANK SINATRA DR	GERALD FORD DR	WIDEN FROM 4 TO 6 LANES	2008	$9,024
3A07301	COOK ST	COUNTRY CLUB	WHITEWATER BRG.	WIDEN FROM 4 TO 6 LANES	2008	$9,024
3A07311	COOK ST	WHITEWATER BR.	FRED WARING DR	WIDEN FROM 4 TO 6 LANES	2008	$2,393
3A07136	COOK STREET	FRANK SINATRA	COUNTRY CLUB DR.	WIDEN FROM 4 TO 6 LANES	2008	$2,566
3A04WT088	CORYDON AVE	RIVER RD	NORCO DR	WIDEN FROM 2 TO 4 LANES	2030	$16,619
3A07288	COTTONWOOD AVE	WARREN RD	STATE ST	WIDEN FROM 2 TO 4 LANES	2030	$18,228
3A07147	COUNTRY CLUB DR	BOB HOPE DR	MONTEREY AVE	INTERSECTION IMPROVEMENTS	2010	$1,200
3A07200	COUNTRY CLUB DR	MONTEREY AVE	PORTOLA AVE	WIDEN FROM 4 TO 6 LANES	2030	$16,897
3A01CV030	COUNTRY CLUB DRIVE	EL DORADO DRIVE	OASIS CLUB DRIVE	WIDEN FROM 4 TO 6 LANES	2030	$7,008
3A01CV031	COUNTRY CLUB DRIVE	OASIS CLUB DRIVE	WASHINGTON STREET	WIDEN FROM 4 TO 6 LANES	2030	$9,269
3A01CV032	COUNTRY CLUB DRIVE	MONTEREY AVENUE	PORTOLA AVE	WIDEN FROM 4 TO 6 LANES	2030	$7,535
3A01CV033	COUNTRY CLUB DRIVE	PORTOLA AVENUE	COOK STREET	WIDEN FROM 4 TO 6 LANES	2030	$6,815
3A07123	COUNTRY CLUB DRIVE	COOK STREET	ELDORADO DR	WIDEN FROM 4 TO 6 LANES	2023	$6,528
3A07009	CROSSLEY RD / GOLF CLUB DR	AVE 34	LOS SANTOS (INCL. BR. AT PALM CYN CHNL)	WIDEN FROM 4 TO 4 LANES	2030	$113,203
3A07095	CROSSLEY RD / GOLF CLUB DR	MESQUITE AVE	AVE 34	WIDEN FROM 2 TO 4 LANES	2030	$10,537
3A07112	CROSSLEY RD / GOLF CLUB DR	RAMON RD	MESQUITE AVE	WIDEN FROM 2 TO 4 LANES	2018	$6,159
3A07134	CROSSLEY RD / GOLF CLUB DR	LOS SANTOS	E PALM CYN	WIDEN FROM 4 TO 4 LANES	2030	$5,778

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07263	D ST	SAN JACINTO ST	4TH ST	WIDEN FROM 2 TO 4 LANES	2030	$1,797
3A07042	DA VALL RD	I-10	VARNER RD	CONSTRUCT NEW 6-LANE ROAD	2030	$24,450
3A07055	DA VALL RD	DINAH SHORE	RAMON RD	WIDEN FROM 2 TO 6 LANES	2018	$13,416
3A07120	DA VALL RD	AVE 30	I-10	CONSTRUCT NEW 6-LANE ROAD	2030	$7,118
3A07125	DA VALL RD	RAMON RD	MCCALLUM WAY	WIDEN FROM 2 TO 6 LANES	2020	$5,578
3A07127	DA VALL RD	MCCALLUM WAY	AVE 30	WIDEN FROM 2 TO 6 LANES	2023	$5,987
3A07201	DA VALL RD	MCCALLUM WAY	AVE 30	WIDEN FROM 2 TO 4 LANES	2030	$6,044
3A07202	DA VALL RD	AVE 30	I-10	CONSTRUCT NEW 4-LANE ROAD	2030	$11,309
3A07203	DA VALL RD	I-10	VARNER RD	CONSTRUCT NEW 4-LANE ROAD	2030	$137,570
3A01CV034	DATE PALM DR	VISTA CHINO	I-10	WIDEN FROM 4 TO 6 LANES	2009	$38,143
3A07027	DATE PALM DR	WHITEWATER RIVER BRIDGE LOCATED .4 MI NORTH OF EAST PALM CANYON DR.: WIDEN - 2 LANES ON EAST SIDE AND APPROX. 500 FEET OF THE NORTH AND SOUTH BOUND APPROACHES TO THE BRIDGE	WHITEWATER RIVER BRIDGE .2 MI SOUTH OF GERALD FORD DR.: WIDEN - 2 LANES ON EAST SIDE AND APPROX.500 FEET OF THE NORTH AND SOUTH BOUND APPROACHES TO THE BRIDGE	WIDEN FROM 4 TO 6 LANES	2020	$20,232
3A07028	DATE PALM DR	I-10	VARNER (INCL. REALIGN & BRIDGE AT LONG CYN.)	WIDEN FROM 2 TO 6 LANES	2030	$27,473
3A07032	DATE PALM DR	DINAH SHORE DR	RAMON RD	WIDEN FROM 4 TO 6 LANES	2020	$18,950
3A07048	DATE PALM DR	GERALD FORD DR	DINAH SHORE DR	WIDEN FROM 4 TO 6 LANES	2020	$15,903
3A07060	DATE PALM DR	PALM CYN	GERALD FORD DR	WIDEN FROM 4 TO 6 LANES	2018	$11,909
3A07129	DIAZ ROAD	DENDY PARKWAY	NORTH CITY LIMITS	CONSTRUCT 4 LANE ARTERIAL	2009	$3,034
3A07091	DILLON RD	GRADE SEPARATION AT HWY 111 / SPRR		WIDEN FROM 2 TO 4 LANES	2008	$5,163
3A07026	DILLON RD	SR-62	INDIAN AVE	WIDEN FROM 2 TO 2 LANES	2030	$33,194
3A07051	DILLON RD	AVE 44	I-10	WIDEN FROM 2 TO 4 LANES	2014	$11,546

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07096	DILLON RD	I-10	WHITEWATER BR.	WIDEN FROM 2 TO 4 LANES	2010	$5,053
3A07204	DILLON RD	INTERSECTION OF DIL-LON RD & INDIAN AVE		WIDEN FROM 2 TO 6 LANES	2018	$212
3A07205	DILLON RD	INDIAN AVE	PALM DR	WIDEN FROM 2 TO 4 LANES	2018	$18,541
3A07206	DILLON RD	INTERSECTION OF DIL-LON RD & PALM DR		WIDEN FROM 4 TO 6 LANES	2018	$152
3A07207	DILLON RD	PALM DR	MOUNTAIN VIEW	WIDEN FROM 2 TO 4 LANES	2018	$9,866
3A07208	DILLON RD	MOUNTAIN VIEW	BENNETT RD	RECONSTRUCT/RESURFACE EXISTING 2 LANES	2018	$2,237
3A07209	DILLON RD	BENNETT RD	THOUSAND PALMS CYN RD	RECONSTRUCT/RESURFACE EXISTING 2 LANES	2020	$53,380
3A07210	DILLON RD	THOUSAND PALMS CYN RD	SUNNY ROCK RD	RECONSTRUCT/RESURFACE EXISTING 2 LANES	2022	$48,000
3A07211	DILLON RD	SUNNY ROCK RD	AVE 44	RECONSTRUCT/RESURFACE EXISTING 2 LANES	2024	$62,568
3A07212	DILLON RD	BR. AT WHITEWATER CHNL		WIDEN FROM 2 TO 4 LANES	2030	$22,123
3A07213	DILLON RD	WHITEWATER BR.	HWY 111	WIDEN FROM 2 TO 4 LANES	2030	$10,102
3A07214	DILLON RD	SR-62 TO INDIAN AVE		RECONSTRUCT/RESURFACE EXISTING 2 LANES	2018	$19,270
3A04WT034	DOMENIGONI PKWY	WARREN RD	SANDERSON AVE	WIDEN FROM 4 TO 6 LANES	2014	$7,258
3A04WT148	DOMENIGONI PKWY	SR-79 (WINCHESTER RD)	WARREN RD	WIDEN FROM 4 TO 6 LANES	2030	$29,965
3A07061	DUNE PALMS RD	BR. AT WHITEWATER CHNL		CONSTRUCT 4-LANE BRIDGE	2012	$9,167
3A07264	DUNLAP	ORANGE	ELLIS AVE	WIDEN FROM 2 TO 4 LANES	2030	$10,783
3A07034	E PALM CYN DR	FARRELL DR	GENE AUTRY TRAIL	WIDEN FROM 4 TO 4 LANES	2020	$19,476
3A07066	E PALM CYN DR	PALM CYN DR	SUNRISE WAY	WIDEN FROM 4 TO 4 LANES	2018	$10,946
3A07157	E PALM CYN DR	SUNRISE WAY	FARRELL DR	WIDEN FROM 4 TO 4 LANES	2020	$959
3A07215	E PALM CYN DR	PALM SPRINGS/CATHE-DRAL CITY LIMITS	CATHEDRAL CYN DR	RECONSTRUCT/RESURFACE EXISTING 4 LANES	2023	$15,742

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A04WT149	EL CERRITO RD	I-15	ONTARIO AVE	WIDEN FROM 2 TO 4 LANES	2030	$3,496
3A04WT093	ELLIS AVE	SR-74	I-215	CONSTRUCT 2 LANE ARTERIAL AND 2 LANE GRADE SEPARA-TION OVER BNSF RR (KEEP GRADE SEPARATION IN ARTERIAL SECTION)	2010	$12,324
3A04WT150	ELLIS AVE	POST RD	SR-74	WIDEN FROM 2 TO 4 LANES	2030	$15,528
3A04WT208	ESPLANADE AVE	WARREN RD	STATE ST	WIDEN FROM 2 TO 4 LANES	2009	$11,122
3A01WT151	ETHANAC RD	SR-74	KEYSTONE DR	CONSTRUCT 4 LANE ARTERIAL	2030	$12,678
3A01WT152	ETHANAC RD	SHERMAN RD	MATTHEWS RD	WIDEN FROM 2 TO 4 LANES INCL. GRADE SEPARATION OVER BNSF RR (GRADE SEP PORTION IS NOT PART OF GRADE SEP LIST AND SHOULD REMAIN HERE)	2030	$64,738
3A04WT052	EUCALYPTUS AVE	I-215	TOWNGATE BLV	WIDEN FROM 4 TO 6 LANES	2014	$4,863
3A07162	EUCALYPTUS AVE	TOWNGATE BLV	ELSWORTH ST	STREET IMPROVEMENT / WIDENING	2014	$232
3A01WT100	EVANS RD	NUEVO RD	I-215	CONSTRUCT 4 LANE ARTERIAL	2010	$19,415
3A04WT099	EVANS RD	PLACENTIA AVE	NUEVO RD	CONSTRUCT 4 LANE ARTERIAL	2010	$10,091
3A01CV040A	FRANK SINATRA DR	ELDORADO DR	TAMARISK ROW DR	WIDEN FROM 4 TO 6 LANES	2023	$2,897
3A01CV040B	FRANK SINATRA DR	COOK ST	ELDORADO DR	WIDEN FROM 4 TO 6 LANES	2023	$1,995
3A07024	FRANK SINATRA DR	WHITEWATER RVR BR. (WITHIN FS1)		CONSTRUCT 4 LANE BRIDGE	2014	$19,604
3A07149	FRANK SINATRA DR	BOB HOPE DR	VISTA DEL SOL RD	INTERSECTION IMPROVEMENTS	2010	$878
3A07151	FRANK SINATRA DR	INTERSECTION OF FRANK SINATRA & BOB HOPE		INTERSECTION IMPROVEMENTS	2010	$817
3A07152	FRANK SINATRA DR	VISTA DEL SOL RD	MONTEREY AVE	INTERSECTION IMPROVEMENTS	2010	$808
3A07216	FRANK SINATRA DR	MONTEREY AVE	PORTOLA AVE	RECONSTRUCT/RESURFACE EXISTING 4 LANES	2016	$11,556

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07304	FRANK SINATRA DR	MONTEREY AVE	PORTOLA AVE	WIDEN FROM 4 TO 6 LANES	2023	$15,274
3A07306	FRANK SINATRA DR	PORTOLA AVE	COOK ST	WIDEN FROM 4 TO 6 LANES	2023	$11,212
3A04A14	FRANKLIN ST	AVENUE 6	CANYON ESTATES DR	WIDEN STREET AND BRIDGE OVER I-15 FROM 2 TO 4 LANES	2018	$1,999
3A07063	FRED WARING DR	WASHINGTON ST	DUNE PALMS RD	WIDEN FROM 4 TO 6 LANES	2009	$8,234
3A07111	FRED WARING DR	DUNE PALMS RD	JEFFERSON ST	WIDEN FROM 3 TO 6 LANES	2009	$3,979
3A07217	FRED WARING DR	WASHINGTON ST	DUNE PALMS RD	WIDEN FROM 4 TO 6 LANES	2014	$10,141
3A07218	FRED WARING DR	DUNE PALMS RD	JEFFERSON ST	WIDEN FROM 3 TO 6 LANES	2008	$3,875
3A07059	FRENCH VALLEY (DATE)	SR-79 (WINCHESTER)	MARGARITA RD	WIDEN 2 TO 4 LANES	2020	$13,533
3A01WT221	FRENCH VALLEY (WEST-ERN BYPASS)	MARGARITA RD	MURRIETA CREEK	CONSTRUCT 0 TO 6 LANE ARTERIAL	2012	$22,141
3A01WT222A	FRENCH VALLEY (WEST-ERN BYPASS)	MURRIETA CREEK	RANCHO CALIFORNIA RD	CONSTRUCT 0 TO 4 LANE ARTERIAL	2014	$34,080
3A01WT222B	FRENCH VALLEY (WEST-ERN BYPASS)	RANCHO CALIFORNIA ROAD	I-15 (FRONT)	CONSTRUCT 0 TO 4 LANE ARTERIAL	2012	$30,174
3A04A31	GARBANI RD	I-215	MENIFEE RD	RECONSTRUCT AND WIDEN FROM 2 TO 4 LANES	2030	$5,779
3A04A32	GARBANI RD	BRADLEY RD	I-215	CONSTRUCT 4-LANE ARTERIAL	2030	$6,567
3A07004	GENE AUTRY TRAIL	WHITEWATER RVR BR. XING		WIDEN FROM 2 TO 4 LANES	2023	$211,873
3A07312	GERALD FORD DR	COOK ST	FRANK SINATRA DR	WIDEN FROM 3 TO 4 LANES	2018	$2,042
3A01CV046	GERALD FORD DRIVE	PORTOLA AVENUE	COOK STREET	WIDEN FROM 2 TO 6 LANES	2008	$10,101
3A07121	GERALD FORD DRIVE	MONTEREY AVENUE	PORTOLA AVE	WIDEN FROM 4 TO 5 LANES (3 EB, 2 WB)	2008	$3,336
3A01WT053	GILMAN SPRINGS RD	SR-60	ALESSANDRO BLVD	WIDEN FROM 2 TO 4 LANES	2018	$7,730
3A01WT153	GILMAN SPRINGS RD	ALESSANDRO BLVD	BRIDGE ST	WIDEN FROM 2 TO 4 LANES	2030	$39,547

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A01WT154	GILMAN SPRINGS RD	BRIDGE ST	SANDERSON AVE	WIDEN FROM 2 TO 4 LANES	2030	$17,356
3A01WT101	GOETZ RD	CASE RD	ETHANAC RD	WIDEN FROM 2 TO 4 LANES	2010	$10,311
3A04WT102	GOETZ RD	LESSER LN	ETHANAC RD	WIDEN FROM 2 TO 4 LANES	2010	$5,225
3A04WT155	GOETZ RD	NEWPORT RD	JUANITA DR	WIDEN FROM 2 TO 4 LANES	2030	$6,029
3A04WT156	GOETZ RD	JUANITA DR	LESSER LN	WIDEN FROM 2 TO 4 LANES	2030	$14,899
3A07110	GOETZ RD	RAILROAD CANYON RD	NEWPORT	WIDEN FROM 2 TO 4 LANES	2012	$4,539
3A07021	GOLF CTR PKWY	GOLF CTR PKWY I-10 IC		WIDEN FROM 4 TO 6 LANES AND WIDEN/RECONSTRUCT RAMPS	2012	$22,624
3A04WT042	GRAND AVE	TOFT DR	SR-74	WIDEN FROM 2 TO 4 LANES	2023	$5,482
3A04WT157	GRAND AVE	ORTEGA HWY (SR-74)	CENTRAL ST	WIDEN FROM 2 TO 4 LANES	2030	$52,612
3A07040	GRAPEFRUIT BLVD	AVE 48/DILLON RD	AVE 50	WIDEN FROM 4 TO 6 LANES	2018	$16,480
3A07069	GRAPEFRUIT BLVD	AVE 52	AVE 54	WIDEN FROM 2 TO 4 LANES	2018	$11,290
3A07071	GRAPEFRUIT BLVD	AVE 50	AVE 52	WIDEN FROM 2 TO 4 LANES	2012	$8,142
3A07088	GRAPEFRUIT BLVD	AVE 54	AVE 56	WIDEN FROM 2 TO 4 LANES	2030	$11,209
3A07130	GREEN RIVER ROAD	DOMINGUEZ RANCH RD	PALISADES DRIVE	WIDEN FROM 4 TO 6 LANES	2008	$2,938
3A01CV047A	HACIENDA AVE	CHOLLA DR	PALM DR	WIDEN FROM 2 TO 6 LANES	2008	$5,321
3A01CV047B	HACIENDA AVE	LITTLE MORONGO RD	CHOLLA DR(MISSINGLINK)	CONSTRUCT NEW 6-LANE ROAD	2010	$5,603
3A01CV048	HACIENDA AVE	PALM DR	MOUNTAIN VIEW RD	WIDEN FROM 2 TO 6 LANES	2010	$9,862
3A01CV049	HACIENDA AVE	MOUNTAIN VIEW RD	DILLON RD(LONGCYNRD)	WIDEN FROM 2 TO 4 LANES	2012	$18,213
3A04WT089	HAMNER	COTA STREET	HAMNER AVE	WIDEN FROM 4 TO 6 LANES	2018	$1,818
3A01WT158	HAMNER AVE	MISSION BLVD	BELLEGRAVE AVE	WIDEN FROM 2 TO 6 LANES	2030	$17,949
3A01WT159	HAMNER AVE	BELLEGRAVE AVE	SANTA ANA RIVER	WIDEN FROM 2 TO 6 LANES	2030	$60,026
3A04WT160	HARLEY JOHN RD	WASHINGTON ST	CAJALCO RD	WIDEN FROM 2 TO 4 LANES	2030	$7,494
3A07074	HARRISON ST	AVE 54	AVE 56	WIDEN FROM 2 TO 4 LANES	2018	$9,568
3A07080	HARRISON ST	AVE 52	AVE 54	RECONSTRUCT/RESURFACE EXISTING 4 LANES	2024	$12,751
3A07081	HARRISON ST	GRAPEFRUIT BLVD	AVE 52	RECONSTRUCT/RESURFACE EXISTING 4 LANES	2019	$9,849

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A04WT054	HEACOCK ST	CACTUS AVE	SAN MICHELE RD	WIDEN FROM 2 TO 4 LANES	2012	$11,794
3A07160	HEACOCK ST-SI	EUCALYPTUS	FIR	STREET IMPROVEMENT / WIDENING	2020	$475
3A07168	HEACOCK ST-SI	DRACAEA	EUCALYPTUS	STREET IMPROVEMENT / WIDENING	2020	$181
3A07169	HEACOCK ST-SI	IRONWOOD AVE	MANZANITA AVE	STREET IMPROVEMENT / WIDENING	2020	$98
3A07289	HEWITT ST	MAIN ST	SOUTH CITY LIMIT	WIDEN FROM 2 TO 4 LANES	2030	$5,135
3A07031	HIGHWAY 111	MADISON ST	MONROE ST	WIDEN FROM 4 TO 6 LANES	2014	$14,275
3A07049	HIGHWAY 111	MONROE ST	JACKSON ST	WIDEN FROM 4 TO 6 LANES	2014	$11,983
3A07053	HIGHWAY 111	JEFFERSON ST	MADISON ST	WIDEN FROM 4 TO 6 LANES	2009	$9,138
3A07087	HIGHWAY 111	JACKSON ST	INDIO BLVD	WIDEN FROM 4 TO 6 LANES	2018	$7,639
3A07257	HIGHWAY 111	COOK ST	ELDORADO DR	WIDEN FROM 4 TO 6 LANES	2012	$8,592
3A07258	HIGHWAY 111	ELDORADO DR	MILES AVE	WIDEN FROM 4 TO 6 LANES	2014	$10,949
3A07259	HIGHWAY 111	MILES AVE	WASHINGTON AVE	WIDEN FROM 4 TO 6 LANES	2014	$12,406
3A04WT090	HILLSIDE AVE	1ST ST	HIDDEN VALLEY PKWY	CONSTRUCT 2 LANE ARTERIAL	2030	$4,277
3A04A03	HOBSONWAY	ARROWHEAD BLVD	CARLTON AVE	WIDEN FROM 2 TO 4 LANES	2018	$4,771
3A04A06	HOBSONWAY	OLIVE LAKE BLVD	INTAKE BLVD	WIDEN EXISTING BRIDGE AT C-CANAL FROM 2 TO 4 LANES	2023	$4,651
3A04WT161	HORSETHIEF CANYON RD	TEMESCAL CANYON RD	I-15	WIDEN FROM 2 TO 4 LANES	2030	$7,322
3A04WT074	HUNTER RD	LOS ALAMOS RD	VIA MIRA MOSA	CONSTRUCT 2 LANE ARTERIAL	2020	$8,453
3A07316	HWY 111	WEST CITY LIMITS	COOK STREET	WIDEN FROM 4 TO 6 LANES	2012	$1,401
3A01CV053	INDIAN AVE	PIERSON BLVD	MISSION LAKES BLVD	WIDEN FROM 2 TO 6 LANES	2012	$7,070
3A07023	INDIAN AVE	MISSION LAKES BLVD	SR-62	WIDEN FROM 2 TO 6 LANES	2014	$19,838
3A07265	INDIAN AVE	NORTH CITY LIMIT	ORANGE	WIDEN FROM 2 TO 4 LANES	2030	$14,634
3A07002	INDIAN AVE	OLD PALM SPRINGS CITY LIMIT	RR XING (INCL. BR. AT WHITEWATER RVR)	WIDEN FROM 2 TO 6 LANES	2030	$475,274
3A07054	INDIAN AVE	19TH AVE	DILLON RD	WIDEN FROM 2 TO 4 LANES	2030	$19,414
3A07139	INDIAN AVE	20TH AVE	19TH AVE	WIDEN FROM 2 TO 4 LANES	2030	$5,373
3A07163	INDIAN AVE	INTERSECTION OF INDIAN AVE & 20TH AVE		WIDEN FROM 2 TO 4 LANES	2030	$408

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07219	INDIAN AVE	DILLON RD	14TH AVE	WIDEN FROM 2 TO 6 LANES	2018	$11,952
3A07220	INDIAN AVE	14TH AVE	PIERSON BLVD	WIDEN FROM 2 TO 6 LANES	2018	$8,667
3A07221	INDIAN AVE	INTERSECTION OF INDIAN AVE & 20TH AVE		WIDEN FROM 2 TO 6 LANES	2012	$172
3A07222	INDIAN AVE	20TH AVE	19TH AVE	WIDEN FROM 2 TO 4 LANES	2012	$2,246
3A07223	INDIAN AVE	19TH AVE	DILLON RD	WIDEN FROM 2 TO 4 LANES	2014	$8,878
3A07038	INDIAN CYN DR	RACQUET CLUB RD	OLD PALM SPRINGS CITY LIMITS	WIDEN FROM 4 TO 4 LANES	2030	$24,932
3A07084	INDIAN CYN DR	RAMON RD	TAHQUITZ CYN WAY	WIDEN FROM 4 TO 4 LANES	2030	$12,363
3A07133	INDIAN CYN DR	TAHQUITZ CYN WAY	ALEJO RD	WIDEN FROM 4 TO 4 LANES	2018	$4,262
3A07142	INDIAN CYN DR	TACHEVAH DR	VISTA CHINO	WIDEN FROM 4 TO 4 LANES	2020	$3,053
3A07143	INDIAN CYN DR	ALEJO RD	TACHEVAH DR	WIDEN FROM 4 TO 4 LANES	2020	$2,229
3A07153	INDIAN CYN DR	VISTA CHINO	RACQUET CLUB RD	WIDEN FROM 4 TO 4 LANES	2023	$1,495
3A04WT055	INDIAN ST	SAN MICHELE RD	OLEANDER AVE	WIDEN FROM 2 TO 4 LANES	2012	$3,125
3A07045	INDIAN ST	HEMLOCK ST	SUNNYMEAD BLD	WIDEN OC FROM 2 TO 4 LANES	2030	$25,032
3A04WT162	INDIAN TRUCK TRAIL	TEMESCAL CANYON RD	I-15	WIDEN FROM 2 TO 4 LANES	2030	$7,078
3A01CV106	INDIO BLVD	JACKSON ST	HWY 111	WIDEN FROM 4 TO 4 LANES	2018	$678
3A01CV107	INDIO BLVD	MADISON ST	MONROE ST	WIDEN FROM 4 TO 4 LANES	2018	$2,028
3A01CV108	INDIO BLVD	MONROE ST	JACKSON ST	WIDEN FROM 4 TO 4 LANES	2018	$1,983
3A01CV109	INDIO BLVD	JEFFERSON ST / I-10	MADISON ST	WIDEN FROM 4 TO 4 LANES	2018	$1,205
3A07041	INDIO BLVD	HWY 111	AVE 48 (WAS HWY111A)	WIDEN FROM 4 TO 4 LANES	2018	$14,897
3A04WT115	IOWA AVE	CENTER ST	3RD ST	WIDEN FROM 4 TO 6 LANES	2020	$14,778
3A04WT056	IRONWOOD AVE	MORTON RD	REDLANDS BLVD	WIDEN FROM 2 TO 4 LANES	2018	$39,734
3A01CV054	JACKSON ST	AVE 48	AVE 50	WIDEN FROM 2 TO 4 LANES	2012	$8,900
3A01CV110A	JACKSON ST	AVE 44	AVE 46	WIDEN FROM 4 TO 6 LANES	2010	$10,776
3A01CV110B	JACKSON ST	I-10 IC	AVE 44	WIDEN FROM 4 TO 6 LANES	2010	$5,191
3A01CV111	JACKSON ST	AVE 46	AVE 48	WIDEN FROM 3 TO 6 LANES	2012	$10,071
3A01CV123	JACKSON ST	AVE 40	I-10 IC	WIDEN FROM 2 TO 6 LANES	2010	$10,879

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07020	JACKSON ST	JACKSON ST I-10 IC	I-10 IC	WIDEN FROM 2 TO 6 LANES AND WIDEN/RECONSTRUCT RAMPS	2012	$63,623
3A07086	JACKSON ST	AVE 50	AVE 52	WIDEN FROM 2 TO 4 LANES	2012	$6,315
3A07224	JACKSON ST	AVE 50	AVE 52	WIDEN FROM 2 TO 4 LANES	2023	$8,537
3A01WT075	JEFFERSON AVE	PALOMAR ST	NUTMEG ST	CONSTRUCT 4 LANE ARTERIAL	2020	$9,014
3A01WT076	JEFFERSON AVE	NUTMEG ST	MURRIETA HOT SPRINGS RD	WIDEN FROM 2 TO 4 LANES	2020	$16,497
3A01CV116	JEFFERSON ST	AVE 40	AVE 38	WIDEN FROM 2 TO 2 LANES	2010	$52,567
3A07019	JEFFERSON ST	I-10 IC AND BR. OVER RR		WIDEN FROM 2 TO 6 LANES	2010	$20,277
3A07171	JEFFERSON ST	I-10	AVE 40	WIDEN FROM 2 TO 2 LANES	2010	TBD
3A07290	KIRBY ST	ESPLANADE AVE	COTTONWOOD AVE	WIDEN FROM 2 TO 4 LANES	2030	$5,135
3A04WT043	LAKE ST	I-15	LINCOLN ST	WIDEN FROM 2 TO 6 LANES	2018	$33,208
3A07018	LANDAU	VISTA CHINO	VARNER RD	CONSTRUCT NEW 6-LANE ROAD	2030	$47,334
3A01WT057	LASSELLE ST	EUCALYPTUS	JOHN F KENNEDY	WIDEN FROM 2 TO 4 LANES	2012	$8,386
3A04A18	LEMON ST	MISSION TR	GRAPE ST	WIDEN FROM 2 TO 4 LANES	2018	$3,639
3A01WT163	LIMONITE AVE	ETIWANDA AVE	VAN BUREN BLVD	WIDEN FROM 2 TO 4 LANES	2012	$9,038
3A01WT164	LIMONITE AVE	VAN BUREN BLVD	CLAY ST	WIDEN FROM 4 TO 6 LANES	2030	$4,666
3A07016	LIMONITE AVE	HAMNER AVE	ETIWANDA AVE	WIDEN FROM 2 TO 4 LANES	2020	$30,503
3A01CV103	LITTLE MORONGO RD	TWO BUNCH PALMS TR	DILLON RD	WIDEN FROM 2 TO 6 LANES	2018	$14,526
3A01CV104	LITTLE MORONGO RD	MISSION LAKES BLVD	PIERSON BLVD	WIDEN FROM 2 TO 4 LANES	2014	$5,565
3A01CV105	LITTLE MORONGO RD	PIERSON BLVD	TWO BUNCH PALMS TR	WIDEN FROM 2 TO 4 LANES	2012	$5,718
3A04WT077	LOS ALAMOS RD	JEFFERSON AVE	I-215	WIDEN FROM 2 TO 4 LANES	2020	$16,049
3A07010	LOS ALAMOS RD	I-15	I-215	WIDEN FROM 2 TO 4 LANES	2020	$67,488
3A01CV058	MADISON ST	AVE 54	AVE 52	CONSTRUCT NEW 4 LANE ROAD	2009	$7,935
3A01CV059A	MADISON ST	AVE 52	AVE 50	WIDEN FROM 3 TO 6 LANES	2012	$6,654
3A01CV059B	MADISON ST	AVE 52	AVE 50	WIDEN FROM 3 TO 4 LANES	2009	$4,832
3A01CV060	MADISON ST	AVE 50	AVE 49 (MISSING LINK)	CONSTRUCT NEW 4 - LANE ROAD	2012	$11,620

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A01CV061	MADISON ST	0.25 MI. N. OF AVE 49	HWY 111 (INCL. MISSING LINK 1/4 MI. N OF AVE 49	CONSTRUCT NEW 4 - LANE ROAD	2012	$7,146
3A01CV062	MADISON ST	HWY 111	MILES AVE	WIDEN FROM 2 TO 4 LANES	2014	$13,640
3A01CV063	MADISON ST	MILES AVE	FRED WARING DR (MISS-ING LINK)	CONSTRUCT NEW 4 - LANE ROAD	2014	$6,104
3A01CV064	MADISON ST	FRED WARING DR	INDIO BLVD	WIDEN FROM 2 TO 4 LANES	2018	$6,824
3A01CV065	MADISON ST	FUTURE MADISON ST I-10 IC		CONSTRUCT 6 - LANE INTERCHANGE	2020	$85,474
3A07058	MADISON ST	AVE 56	AVE 54	WIDEN FROM 3 TO 6 LANES	2008	$8,060
3A07093	MADISON ST	AVE 60	AVE 58	WIDEN FROM 4 TO 6 LANES	2009	$5,142
3A07103	MADISON ST	AVE 58	AVE 56 (AIRPORT BLVD)	WIDEN FROM 4 TO 6 LANES	2009	$4,652
3A07225	MADISON ST	MILES AVE	FRED WARING DR	CONSTRUCT NEW 4-LANE ROAD	2020	$6,712
3A04T027	MAGNOLIA AVE	ONTARIO AVE	RIMPAU AVE	INTERSECTION UPGRADES ON MAGNOLIA AVE. BETWEEN ON-TARIO AVE. AND RIMPAU AVE. TO ACCOMMODATE RESTRIPING FROM 4 TO 6 LANES.	2035	TBD
3A04A25	MAIN ST	OLD TOWN FRONT ST	PUJOL ST	CONSTRUCT 2 LANE BRIDGE ACROSS MURRIETA CREEK	2009	$8,265
3A04WT029	MAIN ST	SR-91	NORTH GRAND BLVD	WIDEN FROM 4 TO 6 LANES	2010	$4,803
3A04WT030	MAIN ST	SOUTH GRAND BLVD	ONTARIO AVE	WIDEN FROM 2 TO 4 LANES	2018	$4,046
3A04A15	MALAGA RD	MISSION TR	CASINO DR/LAKEVIEW TERRACE	WIDEN FROM 2 TO 4 LANES	2023	$5,083
3A07266	MAPES AVE	GOETZ RD	WEST CITY LIMIT	CONSTRUCT 4 LANES	2030	$17,972
3A04WT165	MARKET ST	RUBIDOUX BLVD	SANTA ANA RIVER	WIDEN FROM 2 TO 4 LANES INCL. BRIDGE OVER SANTA ANA RIVER	2030	$19,541
3A07268	MARKHAM ST	WADE	REDLANDS AVE	WIDEN FROM 2 TO 4 LANES	2030	$7,702
3A01WT166	MCCALL BLVD	I-215	ASPEL RD	WIDEN FROM 4 TO 6 LANES	2030	$7,228
3A01WT167	MCCALL BLVD	ASPEL RD	MENIFEE RD	WIDEN FROM 2 TO 4 LANES	2030	$5,799
3A04WT168	MCCALL BLVD	MENIFEE RD	SR-79 (WINCHESTER)	CONSTRUCT 2 LANE ARTERIAL INCL. GRADE SEPARATION OVER BNSF RR (GRADE SEP PORTION IS NOT PART OF GRADE SEP LIST AND SHOULD REMAIN HERE)	2030	$57,195

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A04WT169	MCCALL BLVD	SR-79 (WINCHESTER RD)	WARREN RD	CONSTRUCT 2 LANE ARTERIAL INCL. GRADE SEPARATION OVER BNSF RR (GRADE SEP PORTION IS NOT PART OF GRADE SEP LIST AND SHOULD REMAIN HERE)	2030	$46,105
3A07267	MCPHERSON RD	ETHANAC RD	MAPES AVE	CONSTRUCT 4 LANES	2030	$7,959
3A01WT170	MENIFEE RD	RAMONA EXPWY	SR-74 (PINACATE RD)	WIDEN FROM 2 TO 4 LANES	2030	$38,774
3A01WT171	MENIFEE RD	SR-74 (PINACATE RD)	SIMPSON RD	WIDEN FROM 2 TO 4 LANES INCL. GRADE SEPARATION OVER RR (GRADE SEP PORTION IS NOT PART OF GRADE SEP LIST AND SHOULD REMAIN HERE)	2030	$76,750
3A01WT172	MENIFEE RD	SIMPSON RD	ALDERGATE DR	CONSTRUCT 4 LANE ARTERIAL	2030	$12,035
3A04WT078	MENIFEE RD	KELLER RD	CLINTON KEITH RD	CONSTRUCT 4 LANE ARTERIAL	2020	$20,774
3A04WT079	MENIFEE RD	HOLLAND RD	GARBANI RD	CONSTRUCT 4 LANE ARTERIAL	2020	$11,730
3A04WT080	MENIFEE RD	GARBANI RD	SCOTT RD	WIDEN FROM 2 TO 4 LANES	2020	$5,105
3A07044	MID COUNTY PKWY	ARANTINE HILLS/EAGLE	I-15	CONSTRUCT NEW 4 LANE ARTERIAL SEGMENT	2012	$11,516
3A07003	MID-COUNTY	I-15	I-215	CONSTRUCT 4 LANE ARTERIAL (I-15 TO HARLEY JOHN). CON-STRUCT 2 LANE ARTERIAL (HARLEY JOHN TO I-215).	2030	$305,460
3A07013	MID-COUNTY	RIDER ST	WARREN RD	CONSTRUCT 2 LANE ARTERIAL	2030	$60,560
3A01WT110A	MID-COUNTY PARKWAY	I-215	RIDER ST	WIDEN FROM 2 TO 6 LANES	2018	$26,170
3A01CV121A	MILES AVE	MONROE ST	INDIO BLVD	WIDEN FROM 2 TO 4 LANES	2010	$7,954
3A01CV121B	MILES AVE	CLINTON ST	MONROE ST	WIDEN FROM 4 TO 4 LANES	2010	$3,582
3A07077	MILES AVE	JEFFERSON ST	WHITEWATER RVR	WIDEN FROM 4 TO 4 LANES	2010	$6,817
3A01CV067	MISSION LAKES BLVD	INDIAN AVE	LITTLE MORONGO RD	WIDEN FROM 2 TO 6 LANES	2009	$7,312
3A01CV068	MISSION LAKES BLVD	LITTLE MORONGO RD	PALM DR	WIDEN FROM 2 TO 6 LANES	2010	$8,769
3A07001	MISSION LAKES BLVD	PALM DR	EASTERN TERMINUS AT VERBENA DR	WIDEN FROM 2 TO 6 LANES	2035	$10,808
3A07226	MISSION LAKES BLVD	INDIAN AVE	LITTLE MORONGO RD	WIDEN FROM 2 TO 6 LANES	2023	$16,366
3A07227	MISSION LAKES BLVD	LITTLE MORONGO RD	PALM DR	WIDEN FROM 2 TO 6 LANES	2023	$15,511

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A01WT044	MISSION TR	RAILROAD CANYON RD	BUNDY CANYON RD	WIDEN FROM 4 TO 6 LANES	2009	$7,634
3A07022	MONROE ST	MONROE ST I-10 IC		WIDEN FROM 2 TO 6 LANES AND WIDEN/RECONSTRUCT RAMPS	2012	$63,623
3A07030	MONROE ST	AVE 40	I-10 IC	WIDEN FROM 2 TO 6 LANES	2012	$13,398
3A01CV069	MONTEREY AVE	COUNTRY CLUB DR	FRANK SINATRA DR	WIDEN FROM 4 TO 6 LANES	2009	$5,175
3A07067	MONTEREY AVE	GERALD FORD DR	DINAH SHORE DR	WIDEN FROM 4 TO 6 LANES	2010	$8,032
3A07085	MONTEREY AVE	FRANK SINATRA DR	GERALD FORD DR	WIDEN FROM 4 TO 6 LANES	2012	$6,144
3A07090	MONTEREY AVE	COUNTRY CLUB DR	FRANK SINATRA DR	WIDEN FROM 4 TO 6 LANES	2012	$5,784
3A07116	MONTEREY AVE	CLANCY LANE	COUNTRY CLUB DR	WIDEN FROM 4 TO 6 LANES	2012	$4,093
3A07128	MONTEREY AVE	FRED WARING DR	CLANCY LANE	WIDEN FROM 4 TO 6 LANES	2012	$3,382
3A07228	MONTEREY AVE	I-10	RAMON RD	WIDEN FROM 2 TO 6 LANES	2018	$5,091
3A07229	MONTEREY AVE	COUNTRY CLUB DR	FRANK SINATRA DR	WIDEN FROM 4 TO 6 LANES	2018	$7,505
3A07303	MONTEREY AVE	GERALD FORD DR	DINAH SHORE DR	WIDEN FROM 4 TO 6 LANES	2009	$8,022
3A07307	MONTEREY AVE	FRANK SINATRA DR	GERALD FORD DR	WIDEN FROM 4 TO 6 LANES	2009	$5,346
3A07308	MONTEREY AVE	CLANCY LANE	COUNTRY CLUB DR	WIDEN FROM 4 TO 6 LANES	2012	$4,304
3A07310	MONTEREY AVE	HIGHWAY 111	FRED WARING DR	WIDEN FROM 4 TO 6 LANES	2012	$2,848
3A07313	MONTEREY AVE	FRED WARING DR	CLANCY LANE	WIDEN FROM 4 TO 6 LANES	2012	$1,399
3A07105	MORENO BEACH DR	RECHE CANYON RD	SR-60	WIDEN FROM 2 TO 4 LANES	2020	$6,266
3A07155	MORENO BEACH DR	CACTUS AVE	AUTOMALL DR.	WIDEN 2 TO 6 LANES / STREET IMPROVEMENT	2014	$669
3A07269	MORGAN ST	NEVADA	INDIAN AVE	WIDEN FROM 2 TO 4 LANES	2030	$668
3A07270	MORGAN ST	INDIAN AVE	BRADLEY RD	CONSTRUCT 4 LANES	2030	$14,120
3A07271	MOUNTAIN AVE	MCPHERSON	A ST	WIDEN FROM 2 TO 4 LANES	2030	$2,567
3A01CV071	MOUNTAIN VIEW	HACIENDA AVE	DILLON RD	WIDEN FROM 2 TO 4 LANES	2018	$12,095
3A01CV073	MOUNTAIN VIEW	20TH AVE	VARNER RD	WIDEN FROM 2 TO 6 LANES	2030	$21,472
3A07230	MOUNTAIN VIEW	DILLON RD	20TH AVE	WIDEN FROM 2 TO 4 LANES	2030	$19,333
3A07231	MOUNTAIN VIEW	20TH AVE	VARNER RD	WIDEN FROM 2 TO 6 LANES	2030	$18,180
3A07232	MOUNTAIN VIEW	HACIENDA AVE	DILLON RD	WIDEN FROM 2 TO 4 LANES	2023	$20,791

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A01WT173	MURRIETA HOT SPRINGS RD	POURROY RD	SR-79 (EASTERN BYPASS)	CONSTRUCT 4 LANE ARTERIAL	2030	$25,045
3A01WT174	MURRIETA HOT SPRINGS RD	MARGARITA RD	SR-79 (WINCHESTER)	WIDEN FROM 4 TO 6 LANES	2020	$8,719
3A04WT081	MURRIETA HOT SPRINGS RD	I-215	MARGARITA RD	WIDEN FROM 4 TO 6 LANES	2020	$9,527
3A07072	MURRIETA HOT SPRINGS RD	MARGARITA RD	SR-79 (WINCHESTER)	WIDEN FROM 4 TO 6 LANES	2020	$11,644
3A04WT175	MURRIETA RD	ETHANAC RD	MCCALL BLVD	WIDEN FROM 2 TO 4 LANES	2030	$11,742
3A07272	MURRIETA RD	CASE RD	ETHANAC RD	WIDEN FROM 2 TO 4 LANES	2030	$4,365
3A04A04	N. LOVEKIN BLVD	10TH AVE	8TH AVE	WIDEN EXISTING BRIDGE AT C-CANAL FROM 2 TO 4 LANES	2018	$3,355
3A04A09	N. LOVEKIN BLVD	HOBSONWAY	10TH AVE	WIDEN FROM 2 TO 4 LANES	2020	$7,010
3A04WT070	NASON ST	IRONWOOD AVE	ALESSANDRO BLVD	WIDEN FROM 2 TO 4 LANES	2010	$5,997
3A07101	NASON ST	IRIS AVE	DELPHINIUM AV	CONSTRUCT 4 LANES	2018	$5,717
3A07119	NASON ST	CACTUS AVE	ALESSANDRO BLVD	WIDEN 4 TO 6 LANES / STREET IMPROVEMENT	2010	$3,707
3A07135	NASON ST	DELPHINIUM AVE	CACTUS AVE	CONSTRUCT 6 LANES	2010	$2,707
3A07154	NASON ST	ELDER AVE	IRONWOOD AVE	WIDEN 2 TO 4 LANES / STREET IMPROVEMENT	2020	$1,077
3A01WT176	NEWPORT RD	GOETZ RD	MURRIETA RD	CONSTRUCT 6 LANE ARTERIAL	2030	$32,182
3A04WT177	NEWPORT RD	MURRIETA RD	I-215	WIDEN FROM 4 TO 6 LANES	2030	$45,500
3A04WT178	NEWPORT RD	I-215	MENIFEE RD	WIDEN FROM 4 TO 6 LANES	2030	$6,118
3A04A11	NICHOLS RD	COLLIER AVE	DEXTER AVE	WIDEN FROM 2 TO 6 LANES	2023	$17,961
3A04WT091	NORCO DR	CORYDON AVE	HAMNER AVE	WIDEN FROM 2 TO 4 LANES	2012	$5,316
3A04WT179	NUEVO RD	DUNLAP DR	MENIFEE RD	WIDEN FROM 2 TO 4 LANES	2030	$17,063
3A04WT082	NUTMEG ST	JEFFERSON AVE	CLINTON KEITH RD	WIDEN FROM 2 TO 4 LANES	2020	$10,237
3A04WT060	OLEANDER AVE	WESTERN WAY	INDIAN AVE	WIDEN FROM 2 TO 4 LANES	2010	$5,641
3A04A12	OLIVE ST	MISSION TR	ORCHARD ST	WIDEN FROM 2 TO 4 LANES	2014	$7,347
3A07273	ORANGE AVE	INDIAN AVE	DUNLAP DR	WIDEN FROM 2 TO 4 LANES	2030	$8,729
3A07035	OVERLAND DRIVE EXTENSION	JEFFERSON AVE	DIAZ ROAD	CONSTRUCT 4 LANE ROAD EXTENSION & BRIDGE CROSSING	2012	$11,908

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A04WT117	OVERLOOK PKWY	CHATEAU RIDGE LN	SANDTRACK RD	CONSTRUCT NEW 4 LANE ARTERIAL	2010	$20,963
3A07291	PALM AVE	ESPLANADE AVE	SEVENTH ST	CONSTRUCT 4 LANES	2030	$4,878
3A07292	PALM AVE	SEVENTH ST	RAMONA BLVD	WIDEN FROM 2 TO 4 LANES	2030	$7,959
3A07104	PALM CYN DR	RAMON RD	MESQUITE AVE	WIDEN FROM 4 TO 4 LANES	2030	$9,640
3A07114	PALM CYN DR	TAHQUITZ CYN RD	RAMON RD	WIDEN FROM 3 TO 3 LANES	2030	$8,516
3A07118	PALM CYN DR	ALEJO RD	TAHQUITZ CYN RD	WIDEN FROM 3 TO 3 LANES	2030	$8,126
3A07124	PALM CYN DR	MESQUITE AVE	E PALM CYN DR	WIDEN FROM 4 TO 4 LANES	2030	$7,229
3A07150	PALM CYN DR	TACHEVAH DR	ALEJO RD	WIDEN FROM 4 TO 4 LANES	2030	$1,844
3A07286	PALM CYN DR	VISTA CHINO	TACHEVAH DR	WIDEN FROM 4 TO 4 LANES	2030	TBD
3A01WT180	PALOMAR ST	MISSION TRAIL	CLINTON KEITH RD	WIDEN FROM 2 TO 4 LANES	2030	$17,073
3A01WT181	PALOMAR ST	CLINTON KEITH RD	JEFFERSON AVE	WIDEN FROM 2 TO 4 LANES	2030	$4,063
3A01WT061	PERRIS BLVD	CACTUS AVE	OLEANDER AVE	WIDEN FROM 2 TO 6 LANES	2010	$15,368
3A01WT062	PERRIS BLVD	RECHE VISTA DR	IRONWOOD AVE	WIDEN FROM 2 TO 6 LANES	2010	$9,826
3A01WT105	PERRIS BLVD	RAMONA EXPWY	NUEVO RD	WIDEN FROM 4 TO 6 LANES	2012	$11,148
3A01WT106	PERRIS BLVD	NUEVO RD	11TH ST	WIDEN FROM 2 TO 4 LANES	2018	$11,395
3A07140	PERRIS BLVD	IRONWOOD AVE	SUNNYMEAD BLD	WIDEN FROM 4 TO 6 LANES	2020	$2,957
3A07170	PERRIS BLVD	DRACAEA	FIR	WIDEN FROM 4 TO 6 LANES / STREET IMPROVEMENT	2020	$62
3A04A33	PHILADELPHIA AVE	WINEVILLE RD	ETIWANDA AVE	WIDEN FROM 1 EB EXISTING TO 2 LANES	2030	$2,614
3A04A34	PHILADELPHIA AVE	MILLIKEN AVE	I-15	WIDEN FROM 1 EB EXISTING TO 2 LANES	2030	$2,408
3A01CV075	PIERSON BLVD	SR-62	INDIAN AVE	WIDEN FROM 2 TO 6 LANES	2010	$14,616
3A01CV076	PIERSON BLVD	INDIAN AVE	LITTLE MORONGO RD	WIDEN FROM 2 TO 6 LANES	2010	$5,994
3A01CV077	PIERSON BLVD	PALM DR	EASTERNTERMINUS OF DESERT VIEW AVE	RECONSTRUCT/RESURFACE EXISTING 4 LANES	2010	$11,233
3A07233	PIERSON BLVD	SR-62	INDIAN AVE	WIDEN FROM 2 TO 6 LANES	2020	$23,160
3A07234	PIERSON BLVD	INDIAN AVE	LITTLE MORONGO RD	WIDEN FROM 2 TO 6 LANES	2020	$9,698
3A04WT064	PIGEON PASS RD	CANTARINI	IRONWOOD AVE	WIDEN FROM 2 TO 4 LANES	2009	$13,218
3A01WT107	PLACENTIA AVE	INDIAN AVE	EVANS RD	WIDEN FROM 2 TO 4 LANES	2012	$9,905

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07297	PORTOLA AVE	FUTURE PORTOLA AVE I-10 IC		CONSTRUCT AN INTERCHANGE	2014	$39,787
3A07298	PORTOLA AVE	MAGNESIA FALLS DR	COUNTRY CLUB DR	WIDEN FROM 4 TO 6 LANES	2018	$15,629
3A07302	PORTOLA AVE	BR. AT WHITEWATER CHNL		CONSTRUCT A BRIDGE AT WWR	2007	$8,355
3A07305	PORTOLA AVE	COUNTRY CLUB DR	FRANK SINATRA DR	WIDEN FROM 4 TO 6 LANES	2018	$10,587
3A07309	PORTOLA AVE	GERALD FORD DR	I-10	WIDEN FROM 4 TO 6 LANES	2014	$3,559
3A07314	PORTOLA AVE	HWY 111	MAGNESIA FALLS DR	WIDEN FROM 4 TO 6 LANES	2018	$1,544
3A07122	PORTOLA AVENUE	FRANK SINATRA DRIVE	GERALD FORD DRIVE	WIDEN FROM 4 TO 6 LANES	2023	$6,528
3A04WT025	RAILROAD CANYON RD	COTTONWOOD CANYON RD	GOETZ RD	WIDEN FROM 4 TO 6 LANES	2012	$12,314
3A04WT032	RAILROAD ST	SHERMAN AVE	MAIN ST (AT GRAND)	WIDEN FROM 2 TO 4 LANES	2010	$5,649
3A01CV078	RAMON RD	GENE AUTRY TRAIL	W BANK OF THE WHITE-WATER RVR	WIDEN FROM 4 TO 6 LANES	2018	$7,946
3A01CV081	RAMON RD	PALM CANYON DR	SUNRISE WAY	WIDEN FROM 4 TO 6 LANES	2012	$5,958
3A07005	RAMON RD	INDIAN CYN	SUNRISE WAY (INCL. BARISTO STORM CHNL XING)	WIDEN FROM 4 TO 6 LANES	2020	$169,326
3A07046	RAMON RD	EL CIELO RD	GENE AUTRY TRAIL	WIDEN FROM 6 TO 6 LANES	2023	$19,374
3A07068	RAMON RD	GENE AUTRY TRAIL	W BANK OF THE WHITE-WATER RV	WIDEN FROM 4 TO 6 LANES	2023	$15,389
3A07083	RAMON RD	SUNRISE WAY	FARRELL DR	WIDEN FROM 4 TO 6 LANES	2020	$10,293
3A07089	RAMON RD	BR. AT WHITEWATER RVR - WIDEN NORTH AND SOUTH SIDES AND APPROACHES	BR. AT WHITEWATER RVR - WIDEN NORTH AND SOUTH SIDES AND AP-PROACHES	WIDEN FROM 4 TO 6 LANES	2018	$7,266
3A07100	RAMON RD	BR. AT WHITEWATER RVR		WIDEN FROM 4 TO 6 LANES	2030	$10,083
3A07113	RAMON RD	FARRELL DR	EL CIELO RD	WIDEN FROM 4 TO 6 LANES	2023	$7,169
3A07141	RAMON RD	DATE PALM DR	DA VALL DR	WIDEN FROM 4 TO 6 LANES	2008	$1,864

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07145	RAMON RD	PALM CYN DR	INDIAN CYN DR	WIDEN FROM 4 TO 6 LANES	2018	$1,798
3A07235	RAMON RD	INTERSECTION OF RA-MON RD & VARNER RD		WIDEN FROM 4 TO 6 LANES	2014	$244
3A07236	RAMON RD	I-10	MONTEREY AVE	RECONSTRUCT/RESURFACE EXISTING 4 LANES	2017	$6,457
3A07237	RAMON RD	INTERSECTION OF RAMON RD & MONTEREY AVE		RECONSTRUCT/RESURFACE EXISTING 4 LANES	2009	$117
3A07238	RAMON RD	MONTEREY AVE	THOUSAND PALMS CYN RD	WIDEN FROM 2 TO 4 LANES	2020	$37,082
3A07293	RAMONA BLVD	SEVENTH ST	SAN JACINTO AVE	WIDEN FROM 2 TO 4 LANES	2030	$18,742
3A01WT108	RAMONA EXPWY	I-215 EAST RAMPS	PERRIS BLVD	WIDEN FROM 4 TO 6 LANES	2018	$7,609
3A01WT109	RAMONA EXPWY	PERRIS BLVD	EVANS RD	WIDEN FROM 4 TO 6 LANES	2018	$8,063
3A01WT110B	RAMONA EXPWY	EVANS RD	RIDER ST	WIDEN FROM 2 TO 6 LANES	2018	$10,500
3A01WT182	RAMONA EXPWY	RIDER ST	PICO AVE	WIDEN FROM 4 TO 6 LANES	2030	$5,973
3A01WT183	RAMONA EXPWY	PICO AVE	BRIDGE ST	WIDEN FROM 2 TO 6 LANES	2030	$85,402
3A01WT206	RAMONA EXPWY	BRIDGE ST	WARREN RD	WIDEN FROM 2 TO 6 LANES (NOTE: RTIP#RIV011230 WIDENS PORTIONS TO 4 LANES)	2030	$19,595
3A01WT210	RAMONA EXPWY	SANDERSON AVE	STATE ST	WIDEN FROM 2 TO 6 LANES	2009	$19,342
3A01WT217	RANCHO CALIFORNIA RD	JEFFERSON AVE	MARGARITA RD	WIDEN FROM 4 TO 6 LANES	2030	$28,599
3A04WT065	RECHE CANYON RD	RECHE VISTA DR	MORENO BEACH DR	CONSTRUCT 4 LANE ARTERIAL	2018	$21,490
3A04WT184	RECHE CANYON RD	SAN BERNARDINO CO LINE	RECHE VISTA DR	WIDEN FROM 2 TO 4 LANES	2020	$24,913
3A01WT066	RECHE VISTA DR	RECHE CANYON RD	HEACOCK ST	WIDEN FROM 2 TO 4 LANES	2012	$7,343
3A07274	REDLANDS AVE	OLEANDER AVE	PLACENTIA AVE	CONSTRUCT 4 LANES	2030	$14,120
3A07275	REDLANDS AVE	PLACENTIA AVE	ELLIS AVE	WIDEN FROM 2 TO 4 LANES	2030	$5,391
3A01WT067	REDLANDS BLVD	LOCUST AVE	ALESSANDRO BLVD	WIDEN FROM 2 TO 4 LANES	2014	$9,408
3A07148	REDLANDS BLVD	IRONWOOD AVE	KALMIA AVE	WIDEN 2 TO 4 LANES / STREET IMPROVEMENT	2020	$1,526
3A07156	REDLANDS BLVD	CACTUS AVE	SR-60	WIDEN 2 TO 4 LANES / STREET IMPROVEMENT	2012	$651

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07159	REDLANDS BLVD	KALMIA AVE	LOCUST AVE	WIDEN 2 TO 4 LANES / STREET IMPROVEMENT	2020	$642
3A07161	REDLANDS BLVD	SPRUCE AVE	IRONWOOD AVE	WIDEN 2 TO 4 LANES / STREET IMPROVEMENT	2020	$359
3A07276	RIDER ST	NEVADA	RAMONA EXPWY	WIDEN FROM 2 TO 4 LANES	2030	$11,553
3A04A35	RIVERSIDE DR	HAMNER AVE	ETIWANDA AVE	WIDEN FROM 2 TO 4 LANES	2030	$6,303
3A04A36	RIVERSIDE DR AT DAY CREEK	WINEVILLE RD	ETIWANDA AVE	WIDEN BRIDGE FROM 2 TO 4 LANES	2030	$999
3A04A07	RIVIERA DR	18TH AVE	20TH AVE	CONSTRUCT 2 LANE OVERCROSSING AT THE LOWER OUTFALL DRAIN	2014	$2,013
3A04A21	SALVIA RD	INDIAN CANYON DR	GENE AUTRY TR	CONSTRUCT 4 LANE ARTERIAL CONNECTOR	2030	$27,781
3A07277	SAN JACINTO AVE	WEST CITY LIMIT	NAVAJO	WIDEN FROM 2 TO 6 LANES	2030	$1,797
3A07278	SAN JACINTO AVE	NAVAJO	A ST	CONSTRUCT 4 LANES	2030	$7,445
3A07279	SAN JACINTO AVE	A ST	REDLANDS AVE	WIDEN FROM 2 TO 4 LANES	2030	$4,108
3A07280	SAN JACINTO AVE	REDLANDS AVE	DUNLAP DR	WIDEN FROM 2 TO 6 LANES	2030	$8,216
3A04WT068	SAN MICHELE RD	HEACOCK ST	INDIAN AVE	WIDEN FROM 2 TO 4 LANES	2010	$1,753
3A01WT035	SANDERSON AVE	DOMENIGONI PKWY	STETSON AVE	WIDEN FROM 2 TO 4 LANES	2008	$5,372
3A01WT036	SANDERSON AVE	BNSF RR CROSSING (NEAR STETSON AVE)	ACACIA AVE	WIDEN FROM 2 TO 4 LANES	2008	$2,269
3A01WT185	SANDERSON AVE (SR-79)	GILLMAN SPRINGS RD (AT SR-79)	RAMONA EXPWY	WIDEN FROM 4 TO 6 LANES	2030	$45,542
3A04WT186	SCHLEISMAN RD	SAN BERNARDINO COUNTY LINE	HARRISON AVE	WIDEN FROM 2 TO 4 LANES	2030	$27,948
3A04WT187	SCHLEISMAN RD	HARRISON AVE	CLEVELAND AVE	CONSTRUCT 4 LANE ARTERIAL	2030	$22,952
3A04WT188	SCHLEISMAN RD	CLEVELAND AVE	68TH ST	WIDEN FROM 2 TO 4 LANES	2030	$12,073
3A04WT189	SCHLEISMAN RD	68TH ST	I-15	CONSTRUCT 6 LANE ARTERIAL	2018	$89,427
3A07014	SCHLEISMAN RD	I-15	ARLINGTON AVE	CONSTRUCT 4 LANE ARTERIAL	2030	$51,035
3A01WT207	SCOTT RD	MURRIETA RD	I-215	WIDEN FROM 2 TO 4 LANES	2010	$6,596
3A07294	SEVENTH ST	WARREN RD	CAWSTON AVE	CONSTRUCT 4 LANES	2030	$10,526
3A07295	SEVENTH ST	CAWSTON AVE	RAMONA EXPWAY	WIDEN FROM 2 TO 4 LANES	2030	$23,620
3A07296	SOBOBA RD	CHABELA DR	CITY LIMIT	WIDEN FROM 2 TO 4 LANES	2030	$4,365
3A04WT037	SR-74	WINCHESTER RD (SR-79)	WARREN RD	WIDEN FROM 4 TO 6 LANES	2009	$10,306

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A04WT191	SR-74	I-15	ETHANAC RD	WIDEN FROM 4 TO 6 LANES	2020	$31,310
3A07260	SR-74	NAVAJO	I-215	WIDEN FROM 2 TO 4 LANES	2030	TBD
3A04WT190	SR-74 (ETHANAC)	MATTHEWS RD	SR-79 (WINCHESTER)	WIDEN FROM 2 TO 4 LANES (MATTHEWS TO BRIGGS). WIDEN FROM 4 TO 6 LANES(BRIGGS TO SR-79).	2020	$25,331
3A01WT045	SR-74 (GRAND AVE)	RIVERSIDE DR (SR-74)	ORTEGA HWY (SR-74)	WIDEN FROM 2 TO 6 LANES	2023	$10,855
3A04WT046	SR-74 (RIVERSIDE DR)	LAKESHORE DR	GRAND AVE	WIDEN FROM 2 TO 6 LANES	2018	$18,915
3A04WT047	SR-74 (RIVERSIDE DR/ COLLIER AVE)	I-15	LAKESHORE DR	WIDEN FROM 2 TO 6 LANES	2010	$17,518
3A01WT213	SR-79	NORTH RAMONA BLVD	7TH ST	WIDEN FROM 2 TO 4 LANES	2018	$1,375
3A01WT196	SR-79 (EASTERN BYPASS)	SR79 (WINCHESTER RD NEAR SCOTT RD)	I-15	CONSTRUCT 4 LANE ARTERIAL	2020	$253,713
3A01WT192	SR-79 (GILMAN SPRINGS)	SANDERSON AVE	STATE ST	WIDEN FROM 2 TO 4 LANES	2030	$16,277
3A07008	SR79 (WINCHESTER RD)	DOMENIGONI PKWY	HUNTER RD	WIDEN FROM 2 TO 6 LANES (DOMENIGONI TO LA ALBA). WIDEN FROM 4 TO 6 LANES (LA ALBA TO HUNTER).	2030	$164,012
3A01WT219	SR-79 (WINCHESTER RD)	MURRIETA HOT SPRINGS RD	JEFFERSON AVE	RECONSTRUCT ROAD - EXISTING 6 LANES TO REMAIN 6 LANES (3 EACH DIRECTION)	2012	$17,843
3A01WT218	SR-79 SOUTH (CONSTANCE)	I-15	PECHANGA RD	WIDEN FROM 6 TO 8 LANES	2010	$2,286
3A01WT038	STATE ST	DOMENIGONI PKWY	STETSON AVE	WIDEN FROM 2 TO 4 LANES	2008	$7,002
3A01WT039	STATE ST	JOHNSTON AVE	FLORIDA AVE (SR-74)	WIDEN FROM 2 TO 4 LANES	2008	$1,520
3A01WT214	STATE ST	GILLMAN SPRINGS RD	QUANDT RANCH RD	WIDEN FROM 2 TO 4 LANES	2018	$8,872
3A01WT040	STETSON AVE	WARREN RD	CAWSTON AVE	RELOCATE AND CONSTRUCT 4 LANE ARTERIAL	2010	$4,726
3A04A22	SUNRISE WAY	SUNRISE WAY (NORTH OF SAN RAFAEL DR)	INDIAN CANYON DR	CONSTRUCT/EXTEND 4 LANE ARTERIAL CONNECTOR	2009	$3,162
3A07126	SUNRISE WAY	INDIAN CANYON DR	NORTH PALM CANYON DRIVE (SR 111)	CONSTRUCT/EXTEND 4 LANE ARTERIAL CONNECTOR	2030	$8,681
3A04WT197	TEMESCAL CANYON RD	ONTARIO AVE	INDIAN TRUCK TRAIL	WIDEN FROM 2 TO 4 LANES	2030	$44,947

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A04WT198	TEMESCAL CANYON RD	INDIAN TRUCK TRAIL	LAKE ST	WIDEN FROM 2 TO 4 LANES	2030	$31,654
3A07239	THOUSAND PALMS RD	RAMON RD	DILLON RD	RECONSTRUCT/RESURFACE EXISTING 2 LANES	2010	$20,148
3A07281	TRUMBLE RD	MAPES AVE	ELLIS AVE	WIDEN FROM 2 TO 4 LANES	2030	$3,081
3A01CV085	TWO BUNCH PALMS TR	LITTLE MORONGO RD	PALM DR	WIDEN FROM 2 TO 6 LANES	2012	$9,061
3A01CV086	TWO BUNCH PALMS TR	PALM DR	MIRACLE HILL RD	WIDEN FROM 2 TO 6 LANES	2012	$6,647
3A07240	TWO BUNCH PALMS TR	INDIAN AVE	LITTLE MORONGO RD	WIDEN FROM 0 TO 6 LANES	2030	$24,293
3A04WT118	TYLER ST	WELLS AVE	ARLINGTON AVE	WIDEN FROM 2 TO 4 LANES	2020	$9,755
3A04WT224	VALLEY WAY	ARMSTRONG RD	MISSION BLVD	WIDEN FROM 2 TO 4 LANES	2018	$24,467
3A01WT199	VAN BUREN BLVD	MOCKINGBIRD CANYON RD	WOOD RD	WIDEN FROM 4 TO 6 LANES	2018	$17,242
3A01WT201	VAN BUREN BLVD	SR-60	SANTA ANA RIVER	WIDEN FROM 4 TO 6 LANES (NOTE: OVERLAPS RTIP#RIV011208)	2030	$43,011
3A07007	VAN BUREN BLVD	ORANGE TERRACE PKWY	I-215	WIDEN FROM 4 TO 6 LANES	2030	$148,721
3A07315	VAN BUREN BLVD	JACKSON ST	GARFIELD	WIDEN FROM 4 TO 6 LANES	2014	$26,579
3A07097	VAN BUREN ST	INDIO BLVD	AVE 48	WIDEN FROM 3 TO 6 LANES	2014	$6,361
3A01CV087	VAN BUREN ST	AVE 52	AVE 54	WIDEN FROM 2 TO 4 LANES	2023	$982
3A01CV088	VAN BUREN ST	AVE 54	AVE 56/AIRPORT BLVD	WIDEN FROM 2 TO 4 LANES	2023	$987
3A07036	VAN BUREN ST	AVE 48	AVE 50	WIDEN FROM 2 TO 6 LANES	2014	$13,187
3A07037	VAN BUREN ST	AVE 50	AVE 52	WIDEN FROM 2 TO 6 LANES	2014	$13,152
3A07241	VAN BUREN ST	AVE 50	AVE 52	WIDEN FROM 2 TO 6 LANES	2020	$11,801
3A07242	VAN BUREN ST	AVE 52	AVE 54	WIDEN FROM 2 TO 4 LANES	2020	$820
3A07243	VAN BUREN ST	AVE 54	AVE 56/AIRPORT	WIDEN FROM 2 TO 4 LANES	2020	$803
3A07244	VAN BUREN ST	INDIO BLVD	AVE 48	WIDEN FROM 3 TO 6 LANES	2018	$6,469
3A01CV089	VARNER RD	PALM DR	MOUNTAIN VIEW RD	WIDEN FROM 2 TO 4 LANES	2018	$17,733
3A01CV090	VARNER RD	MOUNTAIN VIEW RD	DATE PALM DR	WIDEN FROM 2 TO 4 LANES	2018	$26,609
3A01CV091	VARNER RD	DATE PALM DR	RAMON RD	WIDEN FROM 2 TO 4 LANES	2030	$77,096

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A07158	VARNER RD	WASHINGTON ST	ADAMS ST	WIDEN FROM 3 TO 4 LANES	2009	$468
3A07245	VARNER RD	INTERSECTION OF VAR-NER RD & RAMON RD		RECONSTRUCT/RESURFACE EXISTING 4 LANES	2013	$173
3A07246	VARNER RD	RAMON RD	MONTEREY AVE	RECONSTRUCT/RESURFACE EXISTING 2 LANES	2010	$4,579
3A07247	VARNER RD	MONTEREY AVE	CHASE SCHOOL RD	RECONSTRUCT/RESURFACE EXISTING 2 LANES	2012	$1,446
3A07248	VARNER RD	CHASE SCHOOL RD	WASHINGTON ST	RECONSTRUCT/RESURFACE EXISTING 2 LANES	2013	$4,113
3A07249	VARNER RD	PALM DR	MOUNTAIN VIEW RD	WIDEN FROM 2 TO 4 LANES	2030	$19,098
3A07250	VARNER RD	MOUNTAIN VIEW RD	DATE PALM DR	WIDEN FROM 2 TO 4 LANES	2030	$36,165
3A07251	VARNER RD	DATE PALM DR	RAMON RD	WIDEN FROM 2 TO 4 LANES	2030	$73,115
3A07252	VARNER RD	WASHINGTON ST	ADAMS ST	WIDEN FROM 3 TO 4 LANES	2023	$1,761
3A07050	VARNER RD / AVE 42	MADISON ST	MONROE ST	WIDEN FROM 2 TO 6 LANES	2009	$9,746
3A07064	VARNER RD / AVE 42	MONROE ST	JACKSON ST	WIDEN FROM 2 TO 6 LANES	2009	$8,083
3A07075	VARNER RD / AVE 42	JACKSON ST	GOLF CTR PKWY	WIDEN FROM 2 TO 6 LANES	2009	$6,905
3A07079	VARNER RD / AVE 42	JEFFERSON ST	MADISON ST	WIDEN FROM 2 TO 6 LANES	2009	$6,285
3A01CF096	VISTA CHINO	E BANK OF WHITEWATER BR.	LANDAU BLVD	WIDEN FROM 4 TO 6 LANES	2018	$14,574
3A01CV095	VISTA CHINO	W. BANK OF WHITEWATER RIVER	E. BANK OF WHITEWATER RIVER	CONSTRUCT NEW BRIDGE CROSSING OVER WHITEWATER RIVER WASH	2030	$177,101
3A01CV097	VISTA CHINO	DATE PALM	DA VALL DR	CONSTRUCT NEW 4-LANE ROAD	2030	$36,209
3A01CV098	VISTA CHINO	PALM CANYON DR	SUNRISE WAY	WIDEN FROM 4 TO 6 LANES	2030	$12,067
3A07006	VISTA CHINO	WHITEWATER RVR BR. XING		WIDEN FROM 4 TO 6 LANES	2030	$169,435
3A07131	VISTA CHINO	GENE AUTRY TRAIL	WHITEWATER RVR	WIDEN FROM 4 TO 6 LANES	2023	$5,822
3A01WT041	WARREN RD	ESPLANADE AVE	DOMENIGONI PKWY	WIDEN FROM 2 TO 4 LANES	2030	$37,514
3A01WT215	WARREN RD	RAMONA EXPWY	ESPLANADE AVE	WIDEN FROM 2 TO 4 LANES	2012	$15,373
3A04WT120	WASHINGTON ST	VICTORIA AVE	HERMOSA DR	WIDEN FROM 2 TO 4 LANES	2018	$10,312

RIVERSIDE COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
3A04WT202	WASHINGTON ST	HERMOSA DR	HARLEY JOHN RD	WIDEN FROM 2 TO 4 LANES	2030	$24,019
3A07132	WASHINGTON ST	AVE 50	HWY 111	RECONSTRUCT/RESURFACE EXISTING 6 LANES	2010	$2,937
3A07146	WASHINGTON ST	AVE 52	AVE 50	RECONSTRUCT/RESURFACE EXISTING 6 LANES	2010	$1,177
3A07253	WASHINGTON ST	I-10	AVE 38	WIDEN FROM 4 TO 6 LANES	2018	$9,843
3A07254	WASHINGTON ST	AVE 38	FRANCES WAY	RECONSTRUCT/RESURFACE EXISTING 4 LANES	2017	$4,895
3A07255	WASHINGTON ST	FRANCES WAY	RAMON RD	RECONSTRUCT/RESURFACE EXISTING 2 LANES	2017	$1,822
3A07282	WATSON	A ST	MCPHERSON RD	CONSTRUCT 4 LANES	2030	$3,594
3A07283	WEBSTER AVE	OLEANDER AVE	MARKHAM	CONSTRUCT 6 LANES	2030	$4,621
3A07284	WEBSTER AVE	MARKHAM	RAMONA EXPWY	WIDEN FROM 2 TO 6 LANES	2030	$2,824
3A07285	WEBSTER AVE	RAMONA EXPWY	RIDER ST	WIDEN FROM 2 TO 4 LANES	2030	$3,081
3A04WT121	WOOD RD	JOHN F KENNEDY DR	VAN BUREN	WIDEN FROM 2 TO 4 LANES	2012	$5,470
3A04WT203	WOOD RD	KRAMERIA AVE	CAJALCO RD	WIDEN FROM 2 TO 4 LANES	2030	$17,449

* For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

RIVERSIDE COUNTY GRADE SEPARATION PROJECTS

In the process of developing the 2008 RTP, the Riverside County Transportation Commission provided to SCAG a list of grade separation improvement projects planned for implementation in Riverside County within the timeframe of the RTP. The projects in this list are included in the 2008 RTP subject to available funding as identified in the Riverside County RTP Projects list.

RIVERSIDE COUNTY GRADE SEPARATION PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY	PROJECT COST ($1,000'S)
3G01G36	22ND ST	I-10	LINCOLN ST	GRADE SEPARATION - 2 LANES OVER UPRR TRACKS	2018	$31,774
3G01G01	3RD STREET	SR-91	KANSAS AVE	GRADE SEPARATION - 4 LANES UNDER BNSF AND UPRR TRACKS	2016	$40,435
3G01G28	7TH ST/ MISSION INN AVE	SR-91	PARK AVE	GRADE SEPARATION - 4 LANES OVER BNSF RR TRACKS	2035	$76,446

RIVERSIDE COUNTY GRADE SEPARATION PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY	PROJECT COST ($1,000'S)
3G01G23	ADAMS ST	INDIANA AVE	LINCOLN ST	GRADE SEPARATION - 4 LANES OVER BNSF RR	2035	$79,770
3G04G44	AIRPORT RD	POLK ST	ORANGE ST	GRADE SEPARATION - 2 LANES OVER UPRR TRACKS AND SR111	2031	$62,179
3G0706	APACHE TR	I-10	SOUTH OF UPRR ON APACHE TR	GRADE SEPARATION - 2 LANES AT UPRR	2031	$62,179
3G01G13	AVENUE 52	SHADY LN	INDUSTRIAL WAY	GRADE SEPARATION - 4 LANES OVER UPRR TRACKS AND SR111	2016	$35,719
3G01CV102	AVENUE 54	GRADE SEPARATION AT SR-111/SPRR		GRADE SEPARATION	2031	$62,179
3G0711	AVENUE 58	SR111	EAST OF CACTUS DR	GRADE SEPARATION - 2 LANES AT UPRR	2031	$62,179
3G0703	AVENUE 62	WEST OF SR111	WEST OF SR86S	GRADE SEPARATION - 2 LANES AT UPRR TRACKS AND SR111	2031	$62,179
3G0705	AVENUE 66	WEST OF SR111/LIN-COLN ST	EAST OF HAMMOND RD	GRADE SEPARATION - 2 LANES AT UPRR	2031	$62,179
3G01G40	BELLGRAVE AVE	BAIN ST	RUTILE ST	GRADE SEPARATION - 2 LANES OVER UPRR TRACKS	2018	$32,465
3G01G30	BROADWAY	MAIN ST	BONITA AVE	GRADE SEPARATION - 2 LANES OVER UPRR TRACKS	2018	$32,465
3G01G20	BROCKTON AVE	CENTRAL AVE	JURUPA AVE	GRADE SEPARATION - 4 LANES UNDER UPRR TRACKS	2018	$40,737
3G01G32	BUCHANAN ST	MAGNOLIA AVE	ELMVIEW DR	GRADE SEPARATION - 2 LANES OVER BNSF RR TRACKS	2030	$64,184
3G01G26	CALIFORNIA AVE	3RD ST	I-10	GRADE SEPARATION - 2 LANES OVER UPRR TRACKS	2018	$32,465
3G01G18	CENTER ST	IOWA AVE	GARFIELD AVE	GRADE SEPARATION - 4 LANES OVER BNSF RR TRACKS	2019	$50,414
3G01G05	CHICAGO AVE	THORTON ST	COLUMBIA AVE	GRADE SEPARATION - 4 LANES OVER BNSF RR TRACKS	2035	$161,867
3G01G11	COLUMBIA AVE	CHICAGO AVE	PALMYRITA AVE	GRADE SEPARATION - 4 LANES OVER BNSF RR TRACKS	2016	$26,786
3G01G39	COTA ST	RAILROAD ST	MCGRATH DR	GRADE SEPARATION - 2 LANES OVER BNSF RR TRACKS	2019	$36,368
3G01G12	CRIDGE ST	SR-91	PARK AVE	GRADE SEPARATION - 2 LANES OVER BNSF RR TRACKS	2035	$86,417
3G0713	GIBSON ST	INDIANA AVE	AGUILAR ST	GRADE SEPARATION - 2 LANES AT BNSF RR	2031	$62,179
3G01G19	HARGRAVE ST	I-10	LINCOLN ST	GRADE SEPARATION - 2 LANES OVER UPRR	2019	$36,659
3G01G37	HARRISON ST	INDIANA AVE	WALNUT GROVE AVE	GRADE SEPARATION - 2 LANES OVER BNSF RR TRACKS	2030	$59,049
3G01G02	IOWA AVE	SPRING ST	PALMYRITA AVE	GRADE SEPARATION - 4 LANES OVER BNSF RR TRACKS	2017	$23,948
3G01G35	JACKSON ST	INDIANA AVE	LINCOLN AVE	GRADE SEPARATION - 4 LANES OVER BNSF RR TRACKS	2030	$64,184

RIVERSIDE COUNTY GRADE SEPARATION PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY	PROJECT COST ($1,000'S)
3G0702	JANE ST	INDIANA AVE	MARGUERITA AVE	GRADE SEPARATION - 2 LANES OVER BNSF AND UP RR TRACKS	2018	$32,465
3G01G38	JEFFERSON ST	INDIANA AVE	LINCOLN AVE	GRADE SEPARATION - 2 LANES OVER BNSF RR TRACKS	2030	$60,333
3G01G33	JOY ST	SR-91	HARRISON ST	GRADE SEPARATION - 2 LANES OVER BNSF RR TRACKS	2019	$36,368
3G01G24	MADISON ST	INDIANA AVE	LINCOLN ST	GRADE SEPARATION - 4 LANES UNDER BNSF RR TRACKS	2030	$48,780
3G01G04	MAGNOLIA AVE	LINCOLN ST	BUCHANAN ST	GRADE SEPARATION - 4 LANES OVER BNSF RR TRACKS	2018	$36,886
3G01G08	MAGNOLIA AVE	CENTRAL AVE	JURUPA AVE	GRADE SEPARATION - 5 LANES UNDER UPRR TRACKS	2017	$36,534
3G01G45	MAIN ST	I-215	MICHIGAN AVE	GRADE SEPARATION - 2 LANES OVER BNSF AND UP RR TRACKS	2018	$32,465
3G01G10	MARY ST	SR-91	MARGUERITA AVE	GRADE SEPARATION - 4 LANES UNDER BNSF RR TRACKS	2017	$40,223
3G0708	MOUNTAIN VIEW AVE	HILLSIDE AVE	RAYANN CT	GRADE SEPARATION - 2 LANES AT UPRR	2031	$62,179
3G01G34	PALM AVE	CENTRAL AVE	JURUPA AVE	GRADE SEPARATION - 4 LANES OVER UPRR TRACKS	2030	$64,184
3G0704	PANORAMA RD	SR91	MONTEREY RD	GRADE SEPARATION - 2 LANES AT BNSF RR	2031	$62,179
3G01G42	PENNSYLVANIA AVE	I-10	3RD ST	GRADE SEPARATION - 2 LANES OVER UPRR TRACKS	2018	$32,465
3G01G31	PIERCE ST	MAGNOLIA AVE	INDIANA AVE	GRADE SEPARATION - 3 LANES OVER BNSF RR TRACKS	2030	$64,184
3G0710	RADIO RD	NORTH OF SAMPSON AVE	SOUTH OF QUARRY ST	GRADE SEPARATION - 2 LANES AT BNSF RR	2031	$62,179
3G01G29	RAILROAD ST	SMITH AVE	SHERMAN AVE	GRADE SEPARATION - 4 LANES OVER BNSF RR	2019	$36,368
3G01G09	RIVERSIDE AVE	CENTRAL AVE	JURUPA AVE	GRADE SEPARATION - 3 LANES UNDER UPRR TRACKS	2017	$39,927
3G0707	RUTILE ST	GALENA ST S/O VAN BUREN BLVD/UPRR	GALENA ST N/O UPRR	GRADE SEPARATION - 2 LANES AT UPRR	2031	$62,179
3G01G43	SAN GORGONIO AVE	I-10	LINCOLN ST	GRADE SEPARATION - 2 LANES OVER UPRR TRACKS	2018	$32,465
3G01G25	SAN TIMOTEO CANYON RD	ENTRANZ BLVD	HAGEN RD	GRADE SEPARATION - 2 LANES OVER UPRR TRACKS	2019	$34,186
3G0712	SHERIDAN ST	BLAINE ST	RAILROAD ST	GRADE SEPARATION - 2 LANES AT BNSF RR	2031	$62,179
3G01G27	SMITH AVE	WALL CIRCLE	RAILROAD ST	GRADE SEPARATION - 4 LANES OVER BNSF RR TRACKS	2019	$45,678
3G01G07	SPRUCE ST	SR-91	I-215	GRADE SEPARATION - 4 LANES OVER BNSF RR TRACKS	2035	$89,741
3G01G06	STREETER AVE	GRAND AVE	CENTRAL AVE	GRADE SEPARATION - 4 LANES UNDER UPRR TRACKS	2018	$49,989
3G0709	TIPTON RD	NORTH OF UPRR	SOUTH OF UPRR	GRADE SEPARATION - 2 LANES AT UPRR	2031	$62,179

RIVERSIDE COUNTY GRADE SEPARATION PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY	PROJECT COST ($1,000'S)
3G01G22	TYLER ST	SR-91	COMANCHE AVE	GRADE SEPARATION - 4 LANES OVER BNSF RR TRACKS	2030	$69,319
3G0701	VIELE AVE	B STREET	LUIS ESTRADA RD	GRADE SEPARATION - 2 LANES AT UPRR	2031	$62,179
3G01G17	WASHINGTON ST	INDIANA AVE	MARGUERITA AVE	GRADE SEPARATION - 2 LANES OVER BNSF RR TRACKS	2019	$36,513

RIVERSIDE COUNTY ITS PROJECTS

In the process of developing the 2008 RTP, the Riverside County Transportation Commission provided to SCAG a list of ITS improvement projects planned for implementation in Riverside County within the timeframe of the RTP. The projects in this list are included in the 2008 RTP subject to available funding as identified in the Riverside County RTP Projects list.

RIVERSIDE COUNTY ITS PROJECTS				
RTP ID	SPONSOR	PROJECT	PROJECT BENEFITS	BUDGET ($1,000,000'S)
3ITS0710	CALTRANS DISTRICT 7	INTERCAD	INTEROPERABLE COMPUTER AIDED DISPATCH OF SERVICES	$2.53
3ITS0701	CALTRANS DISTRICT 8	RAMP METERING	IMPROVED TRAFFIC FLOW AND SAFETY.	$247.19
3ITS0702	CALTRANS DISTRICT 8	FREEWAY OPS. COMMUNICATIONS INFRASTRUCTURE	COMMUNICATIONS LINKS FOR FREEWAY OPS.	$120.21
3ITS0703	CALTRANS DISTRICT 8	CLOSED CIRCUIT TV	INCIDENT DETECTION AND TRAFFIC MONITORING.	$65.51
3ITS0704	CALTRANS DISTRICT 8	ULTIMATE TMC	IMPROVED TRAFFIC FLOW AND SAFETY.	$46.87
3ITS0705	CALTRANS DISTRICT 8	CHANGEABLE MESSAGE SIGNS	TRAVELER INFORMATION ON TRAFFIC AND SAFETY CONDITIONS.	$27.68
3ITS0707	CALTRANS DISTRICT 8	ADVANCED WEATHER WARNING	WEATHER MONITORING AND DETECTION.	$6.26
3ITS0709	CALTRANS DISTRICT 8	HIGHWAY ADVISROY RADIO EXPANSION	TRAVELER INFORMATION ON TRAFFIC AND SAFETY CONDITIONS.	$2.89
3ITS0711	CALTRANS DISTRICT 8	ENVIRONMENTAL SENSING UNITS	ENVIRONMENTAL HAZARDS DETECTION.	$2.27
3ITS0714	CALTRANS DISTRICT 8	SYSTEMS SUPPORT DEVELOPMENT	SYSTEMS SUPPORT ELEMENTS TO TMC/FWY OPS.	$0.92
3ITS0717	CALTRANS DISTRICT 8	FREEWAY SERVICE PATROL	ACCIDENT AND INCIDENT REMOVAL AND REDUCTION.	$0.44
3ITS0706	INLAND EMPIRE ITS	ITS RR GRADE CROSSING VARIABLE SPEED WARNING	IMPROVED GRADE CROSSING SAFETY REDUCED DELAY.	$9.90
3ITS0708	INLAND EMPIRE ITS	ITS RR GRADE CROSSING IMPROVEMENTS	IMPROVED GRADE CROSSING SAFETY REDUCED DELAY.	$4.91

RIVERSIDE COUNTY ITS PROJECTS				
RTP ID	SPONSOR	PROJECT	PROJECT BENEFITS	BUDGET ($1,000,000'S)
3ITS0712	INLAND EMPIRE ITS	ELECTRONIC CLEARANCE/PRE PASS PROGRAM	REDUCED DELAY TRUCKS/INCREASED COMPLIANCE WITH TRUCK SAFETY	$2.15
3ITS0715	INLAND EMPIRE ITS	TRUCK STOP KIOSKS	REDUCED DELAY TRUCKS/INCREASED COMPLIANCE WITH TRUCK SAFETY	$0.59
3ITS0718	INLAND EMPIRE ITS	OVERSIZE/WEIGHT PERMITTING	REDUCED DELAY TRUCKS/INCREASED COMPLIANCE WITH TRUCK SAFETY	$0.32
3ITS0720	INLAND EMPIRE ITS	WESTERN RIVERSIDE TMC	IMPROVED ARTERIAL TRAFFIC FLOW AND SAFETY.	TBD
3ITS0721	INLAND EMPIRE ITS	COACHELLA VALLEY TMC	IMPROVED ARTERIAL TRAFFIC FLOW AND SAFETY.	TBD
3ITS0726	INLAND EMPIRE ITS	WESTERN RIVERSIDE TMC	IMPROVED ARTERIAL TRAFFIC FLOW AND SAFETY.	TBD
3ITS0713	OMNITRANS	TRANSIT TRAVELER INFORMATION	IMPROVED TRANSIT INFORMATION.	$2.02
3ITS0722	OMNITRANS	TRANSIT OPS. MANAGEMENT	IMPROVED TRANSIT RELIABILITY AND MODE SHIFT.	TBD
3ITS0723	OMNITRANS	OPS. MANAGEMENT PARATRANSIT	IMPROVED TRANSIT RELIABILITY AND MODE SHIFT.	TBD
3ITS0724	OMNITRANS	AUTOMATED FARE MANAGEMENT AND DATA	IMPROVED TRANSIT RELIABILITY AND MODE SHIFT.	TBD
3ITS0725	RTA/SUNLINE	FULLY INTEGRATED TRANSIT OPS, MANAGEMENT AND TRAVELER INFORMATION SYSTEM	IMPROVED TRANSIT RELIABILITY AND MODE SHIFT.	TBD
3ITS0716	SUNLINE	TRANSIT ITS MOBILITY ENHANCEMENT	IMPROVED TRANSIT RELIABILITY AND MODE SHIFT.	$0.48
3ITS0719	TBD	REGIONAL MOBILITY MANAGER	IMPROVED TRANSIT/RIDESHARE INFORMATION.	$0.06

SAN BERNARDINO COUNTY RTP PROJECTS

SAN BERNARDINO COUNTY RTP PROJECTS								
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
ARTERIAL	4AL04	0	ARTERIAL IMPROVE-MENTS	COUNTYWIDE		COUNTYWIDE ARTERIAL IMPROVEMENTS	ONGOING	$4,366,180
ARTERIAL	4A01900	18	SR-18	LOS ANGELES COUNTY LINE	US 395	WIDEN FROM 1 TO 2 LANES EACH DIR (PM 116-100.9)	2020	$95,487
ARTERIAL	4A04902	18	SR-18	0.8 MI WEST OF ORCHARD DR (PM 79.9)	2.1 MI WEST OF ORCHARD DR (PM 81.2)	CONSTRUCT PASSING LANES (PM 79.9/81.2) AND TURN LANES (PM 73.76/84.33)	2018	$23,648
ARTERIAL	4A01382	38	SR-38 (ORANGE/LUGO-NIA)	REDLANDS CITY LIMIT (W)	REDLANDS CITY LIMIT (E)	WIDEN FROM 1 TO 2 LANES EACH DIR (PM 5.5-8.0)	2020	$13,020
ARTERIAL	4M07016	38	MENTONE BLVD (SR-38)	WABASH AVE	E/GARNET ST	WIDEN MENTONE BLVD (SR-38) FROM WABASH AVE TO E/GARNET ST FROM 2 TO 4 LANES (PM 3.0-5.5)	2020	$12,768
ARTERIAL	4A01383	62	SR-62 (TWENTY-NINE PALMS HWY)	FAIRWAY DR	SR-247	WIDEN FROM 2 TO 3 LANES EACH DIR (PM 8.75-12.5)	2020	$70,894
ARTERIAL	4M07020	62	SR-62	KICKAPOO TRAIL (9.0)	CHURCH ST. (11.9)	WIDEN FROM 4-LANES TO 6-LANES AND REALIGN (EA:0G930)	2018	$91,288
ARTERIAL	4A01384	83	SR-83 (EUCLID)	MERRIL AV	KIMBALL AV	WIDEN FROM 2 TO 4 LANES EACH DIR (3.9-2.8)	2020	$3,138
ARTERIAL	4M07035	138	SR-138	SR-18	PHELAN RD	PHASE II: WIDEN 2 TO 4 LANES FROM SR-18 TO PHELAN RD (PHASE I PHELAN RD TO I-15 IN RTIP#34011)	2018	$116,607
ARTERIAL	4A01385	142	SR-142 (CHINO HILLS PKWY)	CARBON CANYON RD	PIPELINE DR	WIDEN FROM 2 TO 3 LANES EACH DIR (PM 2.0-5.5)	2020	$13,510
ARTERIAL	4A01386	247	SR-247 (OLD WOMAN SPRINGS RD)	NORTH OF SR-62	GRIFFITH RD	WIDEN FROM 1 TO 2 LANES EACH DIR (EA:34430) (PM	2020	$13,510
AUXILIARY	4M07013	10	I-10	HAVEN	FORD ST	ADD 1 AUX LANE EACH DIRECTION	2020	$445,805
AUXILIARY	4M07021	10	I-10	FORD ST.	RIVERSIDE COUNTY LINE	ADD 1 AUX LANE EACH DIRECTION (PM33.0-0.0)	2030	$102,731
AUXILIARY	4M07008	60	SR-60	RAMONA AVE IC (R1.5)	SB I-15 CONNEC-TOR (R10.0)	WIDEN AUX LANES IN EACH DIRECTION, WIDEN CONNECTOR FROM SB-15 TO WB-60 AND EB-60 TO NB/SB-15, WIDEN RAMPS FROM ONE TO TWO LANES (EA:0E330)	2018	$116,159

SAN BERNARDINO COUNTY RTP PROJECTS								
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
AUXILIARY	4M04009	395	US-395	NB FROM 0.84MI S/O DESERT FLOWER RD TO 2.84MI N/O PURPLE SAGE ST, AND FROM 4MI N/O SHADOW MOUNTAIN AVE TO 6.07MI N/O SHADOW MOUN-TAIN AVE	SB FROM 2.72MI N/O PURPLE SAGE ST TO 0.95MI S/O DESERT FLOWER RD, AND FROM 5.95MI N/O SHAD-OW MOUNTAIN AVE TO 3.88MI N/O SHADOW MOUN-TAIN AVE	ADD PASSING LANES IN BOTH DIRECTIONS AND ADJUST VERTICAL AND HORIZONTAL ALIGNMENTS (EA: 0E840)	2018	$76,516
GRADE SEPA-RATION	4GL04	0	GRADE SEPARATION	COUNTYWIDE		GRADE SEPARATION IMPROVEMENTS	ONGOING	$1,210,328
HOV	4H01001	10	I-10	HAVEN	FORD ST	ADD 1 HOV LANE EACH DIRECTION, WIDEN UC'S, RECONSTRUCT RAMPS (PM7.4-34.0)	2020	$1,080,234
HOV	4H01003	10	I-10	FORD ST.	RIVERSIDE COUNTY LINE	ADD 1 HOV LANE EACH DIRECTION (PM 33.0-0.0)	2030	$253,974
HOV	4H01009	10	I-10/I-215	SOUTH TO EAST/ EAST TO SOUTH		HOV CONNECTOR	2030	$36,323
HOV	4H01010	10	I-10/I-15	SOUTH TO WEST/ WEST TO SOUTH		HOV CONNECTOR	2030	$34,199
HOV	4H01011	10	I-10/I-15	NORTH TO WEST/ WEST TO NORTH		HOV CONNECTOR	2030	$35,051
HOV	4H01004	15	I-15	RIVERSIDE COUNTY LINE	I-215	ADD 1 HOV LANE EACH DIRECTION (PM 0.0- 16.0)	2020	$859,904
HOV	4H01005	15	I-15	I-215	US-395	ADD 1 HOV LANE EACH DIRECTION (PM 16.0-33.2)	2020	$495,645
HOV	4H01006	15	I-15	US-395	SR-18/MOJAVE RIVER	ADD 1 HOV LANE EACH DIRECTION (PM 31.0-40.6)	2020	$731,380
HOV	4H01008	215	I-215	SR-210	I-15	ADD 1 HOV LANE EACH DIRECTION (PM 9.5-18.0)	2030	$404,251
IC/RAMPS	4M01025	10	I-10	ALABAMA ST		INTERCHANGE (PM 28.0-29.5)	2020	$37,985
IC/RAMPS	4M01027	10	I-10	CALIFORNIA ST		INTERCHANGE (PM 27.5-28.5)	2035	$134,869
IC/RAMPS	4M01030	10	I-10	MOUNTAIN VIEW AV		INTERCHANGE (PM 26.5-27.5)	2020	$61,732

SAN BERNARDINO COUNTY RTP PROJECTS								
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
IC/RAMPS	4M01031	10	I-10	MT VERNON AV		INTERCHANGE (23.0-24.0)	2020	$54,845
IC/RAMPS	4M01032	10	I-10	WABASH AV		INTERCHANGE (PM 23.6-34.2)	2030	$51,546
IC/RAMPS	4M04023	10	I-10	0.1 KM E/O I-15 (PM 9.9)	0.4 KM E/O I-215 (PM R24.5)	INSTALL RMS, CCTV ESU; WIDEN ENTRANCE RAMPS FROM 1 TO 2 LANES AT: EB & WB AT CHERRY AVE, CITRUS AVE, CEDAR AVE, RIVERSIDE AVE AND MT VERNON AVE; WB AT RANCHO AVE; EB AT 9TH ST (EA:38430)	2012	$25,201
IC/RAMPS	4M04033	10	I-10	WILDWOOD CAN-YON		INTERCHANGE PM 37.5-38.5)	2020	$45,351
IC/RAMPS	4M07001	10	I-10	EUCLID AV		IN ONTARIO ON I-10 AT EUCLID AVENUE - WIDEN EASTBOUND/WESTBOUND RAMPS (PM 3.0-4.0)	2030	$13,914
IC/RAMPS	4M07002	10	I-10	MONTE VISTA	AT I-10 FREEWAY	IN MONTCLAIR ON I-10 AT MONTE VISTA - INTER-CHANGE IMPROVEMENTS (PM.25-1.1)	2020	$45,754
IC/RAMPS	4M07003	10	I-10	UNIVERSITY AVE.		IN REDLANDS ON I-10 AT UNIVERSITY AVE - INTER-CHANGE IMPROVEMENTS (PM31.4-32.0)	2035	$21,231
IC/RAMPS	4M01037	15	I-15	CAJON JN/SR-138		INTERCHANGE (PM 16.0-21.7)	2020	$56,585
IC/RAMPS	4M07034	15	I-15	AT FOOTHILL BLVD		WIDEN-NB-ON-RAMP TO 2 LANES FROM RAMP EN-TRANCE TO THE METERING POINT AND TRANSITION TO 1 LANE AT THE GORE POINT & INSTALL RAMP METERING. (EA 0H791)	2018	$1,401
IC/RAMPS	4M01040	15	I-15	OAK HILL RD		REPLACE OVERCROSSING (R28.4-29.8)	2020	$3,369
IC/RAMPS	4M01041	15	I-15	SIERRA AV		INTERCHANGE (PM 12.5-13.5)	2020	$24,172
IC/RAMPS	4M07004	15	I-15	BEAR VALLEY RD		INTERCHANGE MODIFICATION (PM 36.5-38.5)	2020	$54,424
IC/RAMPS	4M07010	15	I-15	HIGH DESERT COR-RIDOR		IN VICTORVILLE/APPLE VALLEY ON I-15 AT EAST/ WEST HIGH DESERT CORRIDOR - CONSTRUCT INTERCHANGE (PM 15.1-35.9)	2018	$129,257
IC/RAMPS	4M07014	15	I-15	MOJAVE ST.		NEW INTERCHANGE (PM 41.0-43.0)	2020	$111,559
IC/RAMPS	4PL07015	15	I-15	SIERRA AVE UC (12.8)	1/93 MILES S/O GLEN HELEN PKWY U/C	SIGNALIZE SB AND NB I-15 RAMP INTERSECTIONS (EA:0G290) (4M045054) (12.8-13.2)	2010	$1,665
IC/RAMPS	4M01047	30	SR-30 (SR-210)	DEL ROSA AV		INTERCHANGE (PMR 25.0-26.0)	2030	$97,232
IC/RAMPS	4M01048	30	SR-30 (SR-210)	HIGHLAND AV		INTERCHANGE (PM T21.0-22.0)	2030	$59,857

SAN BERNARDINO COUNTY RTP PROJECTS								
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
IC/RAMPS	4M01049	30	SR-30 (SR-210)	WATERMAN AV		INTERCHANGE (PM R23.5-24.5)	2030	$149,641
IC/RAMPS	4M07006	30	SR-30 (SR-210)	5TH STREET		IN HIGHLAND ON SR-30 (SR-210) AT 5TH STREET - INTERCHANGE IMPROVEMENTS (	2015	$7,887
IC/RAMPS	4M07007	30	SR-30 (SR-210)	BASE LINE		IN HIGHLAND ON SR-30 (SR-210) AT BASE LINE - INTERCHANGE IMPROVEMENTS	2020	$10,135
IC/RAMPS	4M04050	60	SR-60	SR-60 AT CENTRAL AVE (3.8)		ADD AUX LANES AND WIDEN RAMPS, CONST EN-TRANCE LOOP RAMP (EA:0C870) PM R2.1-3.0)	2014	$16,595
IC/RAMPS	4M07017	60	SR-60	ARCHIBALD		IN ONTARIO ON SR-60 AT ARCHIBALD AVENUE - WIDEN OFF RAMPS FROM 2 TO 3 LANES (PM R7.6-7.8)	2030	$10,457
IC/RAMPS	4M07018	60	SR-60	EUCLID		IN ONTARIO ON SR-60 AT EUCLID AVENUE - WIDEN OFF RAMPS FROM 2 TO 3 LANES (PM R4.6-5.0)	2030	$11,595
IC/RAMPS	4PL07019	60	SR-60	SR-60 AT MOUN-TAIN AVE (5.8)		WIDEN RAMPS, CONST AUX LANES (EA:0C880)	2014	$8,139
IC/RAMPS	4M01043	215	I-215	BARTON ROAD		RECONSTRUCT BARTON RD INTERCHANGE	2018	$80,509
IC/RAMPS	4M01044	215	I-215	PALM AV		INTERCHANGE (PM13.5-14.5)	2020	$16,575
IC/RAMPS	4M01045	215	I-215	PEPPER-LINDEN AV		INTERCHANGE	2030	$138,903
IC/RAMPS	4M07005	215	I-215	BARTON ROAD IC (0.8)	TO (1.8)	RECONSTRUCT INTERCHANGE	2015	$61,099
ITS	4ITS04	0	ITS	COUNTYWIDE		INTELLIGENT TRANSPORTATION SYSTEMS	ONGOING	$592,423
MIXED FLOW	4M01003	215	I-215	SR-30	I-15	ADD 1 MF LANE EACH DIRECTION (10.0-18.0)	2030	$236,757
MIXED FLOW & AUXILIARY & TRUCK CLIMBING	4M07011	15	I-15	I-215 (DEVORE INTERCHANGE) (PM 14.0 - R16.0)		ON I-15 WIDEN FROM 3 TO 4 MF EACH DIR FROM 14.0 TO R14.3.; ADD 2 TRUCK BYPASS LANES EA DIR ALONG I-15 WITHIN PROJECT LIMITS. ADD AUX-ILIARY LANES EACH DIR THROUGH PROJECT LIMITS; PROVIDE LOCAL ROAD IMPROVEMENTS	2030	$461,748
MIXED FLOW & HOV	4M01005	210	SR-210	I-215	I-10	ADD 1 MF LANE AND 1 HOV LANE EACH DIRECTION AND WIDEN UC'S (PM 22.0-33.2)	2020	$253,547
O&M	4OM0701	0	OPERATIONS & MAINTE-NANCE	COUNTYWIDE		STATE HIGHWAY, ARTERIAL, AND TRANSIT PRESER-VATION/MAINTENANCE AND OPERATIONS	ONGOING	$2,439,040

SAN BERNARDINO COUNTY RTP PROJECTS								
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
OTHER	4PD04	0	PROJECT DEVELOPMENT & TRAFFIC MITIGATION	COUNTYWIDE		PROJECT DEVELOPMENT & TRAFFIC MITIGATION	ONGOING	$503,349
OTHER	4FR04	0	SOUTHERN CALIFORNIA LOGISTICS AIRPORT RAIL PROJECT			TRACK AND INTERMODAL YARD IMPROVEMENTS (PHASES 1 THROUGH 4)	2030	$995,421
OTHER	4PL07029	15	I-15	18MILES N/O BAKER AT AFTON RD OC #54-0364 (111.6)	BISON RD OC #54-0383 AND RASOR RD OC #54-0391 (124.2)	SEISMIC RETROFIT THREE BRIDGES (EA:0G480)	2013	$2,901
OTHER	4PL07030	15	I-15	35 MILES N/O BAKER AT BAILEY RD OC #54-0613 (171.5)	AND YATES WELL RD OC #54-0542 (181.4	SEISMIC RETROFIT TWO BRIDGES (EA:0G370)	2013	$2,923
OTHER	4PL07026	18	SR-18	ALSO SBD-189-0.0/0.37: NR RIM FOREST FROM JCT RTE 18/189	0.5 KM EAST	RECONSTRUCT SLOPES, STACK WALL WIDEN LAND & SHOULDER ON RTE 189 AND EXTEND RETAINING WALL ON RTE 18 (EA:1A900)	2012	$9,271
OTHER	4PL07027	395	US-395	15.02 KM N/O SHADOW MTN RD (36.2)	1.0 KM S/O KRAMER JCT (45.3)	CORRECT CURVE (EA: 0C130) (PM 36.2-45.3)	2013	$24,268
TDM	4RL04	0	RIDESHARE	COUNTYWIDE		RIDESHARE	ONGOING	$4,063
TRANSIT - BUS	4TL204	0	ELDERLY & HANDI-CAPPED ASSISTANCE	COUNTYWIDE		ELDERLY & HANDICAPPED ASSISTANCE	ONGOING	$500,612
TRANSIT - BUS	4TL104	0	LOCAL TRANSIT SERVICE	COUNTYWIDE		COUNTYWIDE LOCAL TRANSIT SERVICE	2030	$1,269,402
TRANSIT - COMMUTER RAIL	4CR04	0	METROLINK COMMUTER RAIL	COUNTYWIDE		SERVICE EXPANSION; SB LINE 72 DAILY TRAINS, RIVERSIDE LINE 46 DAILY TRAINS, IEOC LINE 28 DAILY TRAINS	2030	$419,178
TRANSIT - COMMUTER RAIL	4TR0101	0	SAN BERNARDINO-RED-LANDS EXTENSION	4TH ST/MT. VERNON	GROVE/CENTRAL	EXTEND RAIL SERVICE TO REDLANDS (10 MILES); RAIL TECHNOLOGY TBD; 15-MIN. FREQ. DAILY	2014	$199,605
TRUCK CLIMBING	4T01003	15	I-15	DEVORE	SUMMIT	TRUCK CLIMBING LANE (PM 15.9-27.0)	2010	$22,170

* For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

SAN BERNARDINO COUNTY ARTERIAL PROJECTS

In the process of developing the 2008 RTP, the San Bernardino Associated Governments provided to SCAG a list of arterial improvement projects planned for implementation in San Bernardino County within the timeframe of the RTP. The projects in this list are included in the 2008 RTP subject to available funding as identified in the San Bernardino County County RTP Projects list.

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A04415	14TH ST	YUCAIPA BL	OAK GLEN RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$6,329
4A07155	19TH ST	EAST CITY LIMITS	CAMPUS	WIDEN 19TH ST FROM EAST CITY LIMITS TO CAMPUS FROM 2 TO 4 LANES	2007	$2,560
4A07064	3RD ST	VICTORIA AVE	PALM AVE	WIDEN 3RD ST FROM VICTORIA AVE TO PALM AVE	2009	$5,406
4A07137	3RD ST	TIPPECANOE AVE	200' E/O SHIRLEY LN	WIDEN 3RD ST FROM TIPPECANOE AVE TO 200' E/O SHIRLEY AVE FROM 2 TO 6 LANES	2009	$3,026
4A07203	3RD ST	PALM AV	5TH ST	WIDEN 3RD ST FROM PALM AVE. TO 5TH ST. FROM 2 TO 4 LANES	2012	$1,759
4A01185	4TH ST	VINEYARD AV	CUCAMONGA CREEK	WIDEN FROM 2 TO 3 LANES EACH DIR	2018	$943
4A07302	4TH ST	PALMETTO	SAN ANTONIO	WIDEN 4TH ST FROM PALMETTO TO SAN ANTONIO FROM 2 TO 4 LANES	2018	$691
4A07311	4TH ST	CAMPUS AV	GROVE AV	WIDEN 4TH ST FROM CAMPUS AV TO GROVE AV FROM 2 TO 4 LANES	2018	$610
4A01262B	5TH AV	CRAFTON AV	WABASH AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$3,990
4A01366	5TH ST	OAK GLEN RD	COUNTY LINE RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$7,684
4A01387	5TH ST	VICTORIA AV	PALM AV	WIDEN FROM 2 TO 4 LANES	2008	$6,638
4A01388	5TH ST	TIPPECANOE	SHIRLEY	WIDEN FROM 2 TO 4 LANES	2008	$4,634
4A07119	5TH ST	STERLING	VICTORIA	WIDEN 5TH ST FROM STERLING TO VICTORIA FROM 2 TO 4 LANES	2012	$3,655
4A07292	5TH ST	WARM CREEK	PEDLEY	WIDEN 5TH ST FROM WARM CREEK TO PEDLEY FROM 2 TO 4 LANES	2030	$1,111
4A01147	7TH AVE	RANCHERO RD	BEAR VALLEY RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$14,384
4A07062	9TH ST	DEL ROSA DR	VICTORIA AV	WIDEN 9TH ST FROM DEL ROSA DR TO VICTORIA AV FROM 2 TO 4 LANES	2030	$11,676
4A07353	9TH ST	TIPPECANOE AVE	FAIRFAX LN	WIDEN 9TH ST FROM TIPPECANOE AVE TO FAIRFAX LN FROM 2 LANES TO 4 LANES.	2030	$562
4A07334	ACACIA			CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF ACACIA AND RIALTO	2035	$1,380
4A04406	ADELANTO RD	AUBURN AVE	COLUSA RD	NEW ROAD, 2 LANES EACH DIR	2018	$12,931

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07226	AGUA MANSA RD	RANCHO AV		WIDEN AGUA MANSA RD FROM 0080M W, RANCHO AVE E0073 FROM 2 TO 4 LANES	2020	$2,054
4A01188	AIRPORT DR	ROCHESTER AV	WINEVILLE	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$3,084
4A01237	ALABAMA	3RD ST	SAN BERNARDINO AV	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: RTIP#SBD31719 WIDENS BRIDGE AT SANTA ANA RIVER)	2020	$12,345
4A07017	ALABAMA	LUGONIA AV	BARTON RD	WIDEN ALABAMA FROM LUGONIA AVE TO BARTON RD FROM 4 TO 6 LANES	2018	$17,004
4A07042	ALABAMA	N CITY LIMITS	PALMETTO	WIDEN ALABAMA FROM N CITY LIMITS TO PALMETTO FROM 2 TO 4 LANES	2020	$13,295
4A07073	ALABAMA ST	LUGONIA	PALMETTO	WIDEN ALABAMA ST FROM LUGONIA AVE TO PALMETTO AVE FROM 4 TO 6 LANES	2020	$7,661
4A07175	ALABAMA ST	3RD ST	CITY LIMITS	WIDEN ALABAMA ST FROM 3RD ST TO CITY LIMITS FROM 2 TO 4 LANES	2030	$5,556
4A07251	ALDER AV	VALLEY	SAN BERNARDINO	WIDEN ALDER AVE FROM VALLEY BLVD TO SAN BERNARDINO AV FROM 2 LANES TO 4	2020	$1,388
4A07349	ALDER AV	TAYLOR ST	VALLEY BLVD	WIDEN ALDER AVE FROM TAYLOR ST TO VALLEY BLVD FROM 2 LANES TO 4	2020	$500
4A07126	ALDER AVE	JURUPA	N/ SLOVER	WIDEN ALDER AVE FROM JURUPA TO N/O SLOVER AVE FROM 2 TO 4 LANES	2020	$4,996
4A07262	ALDER AVE	SLOVER	N 0023M	WIDEN ALDER AVE FROM SLOVER AVE TO .23M NORTH FROM 2 TO 4 LANES	2020	$1,277
4A07322	ALDER AVE	JURUPA AVE	N .12M	WIDEN ALDER AVE FROM JURUPA AVE TO .12M NORTH FROM 2 TO 4 LANES	2020	$666
4A07149	AMARGOSA RD	RANCHO RD	VILLAGE DR	WIDEN AMARGOSA RD FROM RANCHO RD TO VILLAGE DR FROM 0 TO 4 LANES (INCLUDES WASH CROSSING)	2010	$2,957
4A07276	AMARGOSA RD	CLOVIS RD	RANCHO RD	WIDEN AMARGOSA RD FROM CLOVIS RD TO RANCHO ROAD FROM 2 TO 4 LANES	2020	$1,270
4A07281	AMARGOSA RD	JUST S/O AIR BASE RD	AT POWER LINE EASEMENT	WIDEN AMARGOSA RD FROM JUST S/O AIR BASE RD TO POWER LINE EASEMENT FROM 1 TO 4 LANES	2020	$1,206
4A07318	AMARGOSA RD	2050' S/O AIR BASE RD	AT POWER LINE EASEMENT	WIDEN AMARGOSA RD FROM 2050' S/O AIR BASE DR TO POWER LINE EASEMENT FROM 0 TO 4 LANES	2020	$769
4A07319	AMARGOSA RD	1780' N/O VILLAGE DRIVE	AT POWER LINE EASEMENT	WIDEN AMARGOSA RD FROM 1780' N/O VILLAGE DR TO CENTER OF LADWP POWER LINE EASEMENT FROM 0 TO 4 LANES	2020	$769
200415	AMBOY RD	IRONAGE RD	NATIONAL TRAILS HWY	RECONSTRUCT ROAD, 1 LANE EACH DIR	2008	$873
4A07210	AMETHYST	PALMDALE RD	SENECA RD	WIDEN AMETHYST RD FROM PALMDALE RD TO SENECA RD FROM 2 TO 4 LANES	2020	$2,387

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07223	AMETHYST RD	RANCHO RD	HOPLAND	WIDEN AMETHYST RD FROM RANCHO RD TO HOPLAND FROM 0 TO 4 LANES	2010	$1,404
4A07296	AMETHYST RD	JUST N/O HOP-LAND	POWER LINE EASE-MENT	WIDEN AMETHYST RD FROM JUST N/O HOPLAND TO POWER LINE EASEMENT FROM 0 TO 4 LANES	2020	$1,046
4A01008	APPLE VALLEY RD	SR-18	YUCCA LOMA RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$42,217
4A01191	ARCHIBALD AV	JURUPA AV	MISSION BL	WIDEN FROM 1 TO 3 LANES EACH DIR	2018	$1,631
4A04189	ARCHIBALD AV	EDISON AV	SCL	WIDEN FROM 1 TO 3 LANES EACH DIR	2018	$7,006
4A04190	ARCHIBALD AV	RIVERSIDE DR	EDISON AV	WIDEN FROM 1 TO 3 LANES EACH DIR	2018	$6,518
4A07277	ARCHIBALD AV			CONSTRUCT A BRIDGE ON ARCHIBALD AVE OVER UPPER DEER CREEK	2018	$909
4A07278	ARCHIBALD AV			CONSTRUCT A BRIDGE ON ARCHIBALD AVE OVER UPPER DEER CREEK SPILLWAY	2018	$909
4A07326	ARCHIBALD AV			CONSTRUCT A BRIDGE ON ARCHIBALD AVE OVER LOWER DEER CREEK	2018	$497
4A07180	ARDEN	TERMINI	LANKERSHIM	EXTEND ARDEN AV TO CONNECT TO LANKERSHIM AVE FROM 0-4 LANES	2030	$5,356
4A07076	ARROW	COUNTY LINE	CENTRAL	WIDEN ARROW FROM COUNTY LINE TO CENTRAL FROM 2 TO 4 LANES	2009	$4,864
4A07066	ARROW BLVD	ALDER AVE	MAPLE AVE	WIDEN FROM 2 TO 4 LANES	2018	$8,180
4A01294	ARROW HWY	SAN ANTONIO AV	EAST CITY LIMIT	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$14,677
4A07024	ARROW ROUTE	HICKORY AV	TOKAY AVE	WIDEN ARROW ROUTE FROM HICKORY AV TO TOKAY AV FROM 2 TO 4 LANES	2020	$18,152
4A07179	ARROW ROUTE	CLAIRMONT	CENTRAL AVE	WIDEN ARROW ROUTE FROM CLAIRMONT AVE TO CENTRAL AVE FROM 2 TO 4 LANES	2020	$3,109
4A07219	ARROW ROUTE	CENTRAL AVE	BENSON AVE	WIDEN ARROW ROUTE FROM CENTRAL AVE TO BENSON AVE FROM 2 TO 4 LANES	2020	$2,165
4A04405	ASTER RD	RANCHO RD	AIR EXPRESSWAY	NEW ROAD, 1 LANE EACH DIR	2010	$2,053
4A07221	ASTER RD	PALMDALE RD	OLVINE RD	WIDEN ASTER RD FROM PALMDALE RD TO OLVINE RD FROM 0 TO 4 LANES	2020	$2,369
4A07348	ASTER RD	OLVINE RD	DEL ROSA RD	WIDEN ASTER RD FROM OLVINE RD TO DEL ROSA RD FROM 0 TO 4 LANES	2020	$592
4A07170	ASTER ROAD	MOJAVE DR	CACTUS ROAD	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$3,331
4A04400	AUBURN/AD-ELANTO	CHAMBERLAIN WAY (CRIPPEN RD)	JONATHAN ST	WIDEN FROM 2 TO 4 LANES EACH DIR	2020	$3,162

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07248	AVE E	16TH ST	WILSON CK	WIDEN AVE E FROM 16TH ST TO WILSON CK ST FROM 2 LANES TO 4 LANES	2018	$1,284
4A04416	AVENUE E	8TH ST	BRYANT ST	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$17,723
4A01255	AYALA DR	HIGHLAND AV	RIVERSIDE AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$3,876
4A01310	BALDY MESA RD	PALMDALE RD	LA MESA RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$1,767
4A07285	BALDY MESA RD	LA MESA RD	OLIVINE RD	WIDEN BALDY MESA RD FROM LA MESA RD TO OLIVINE RD FROM 0 TO 4 LANES	2020	$1,176
4A07145	BANANA AVE	JURUPA	N/SLOVER	WIDEN BANANA AVE FROM JURUPA AVE TO N/SLOVER AVE FROM 2 TO 4 LANES	2020	$4,496
4A01066	BARTON RD	S. CITY LIMITS	WATERMAN AV	WIDEN FROM 2 TO 3 LANES EACH DIR (NOTE: OVERLAPS RTIP#200064 AND SBD78022, RECHE CYN TO WATERMAN)	2010	$1,187
4A01139	BARTON RD	HONEY HILLS	N.E. CITY LIMITS	WIDEN FROM 1 TO 2 LANES EACH DIR	2010	$2,743
4A01141	BARTON RD	I-215	WEST CITY LIMITS	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$3,344
4A07245	BARTON RD	LOMA LINDA CITY LIMITS	CALIFORNIA ST	WIDEN BARTON RD FROM LOMA LINDA CITY LIMITS TO CALIFORNIA ST FROM 4 TO 6 LANES	2020	$1,554
4A07016	BASE LINE	BOULDER AVE	CHURCH ST	WIDEN BASE LINE FROM BOULDER AVE TO CHURCH ST (INCLUDING BRIDGE AT CITY CR.)	2012	$14,981
4A07038	BASE LINE	CHURCH AVE	BOULDER AVE	WIDEN BASE LINE FROM CHURCH AVE TO BOULDER AVE FROM 4 LANES TO 6 LANES (INCLUDING SR 30 BRIDGE WIDENING).	2018	$10,487
4A07046	BASE LINE	W.CITY LIMIT	PALM AVE	WIDEN BASE LINE FROM W.CITY LIMIT TO PALM AVE	2030	$14,735
4A07121	BASELINE	WEST CITY LIMITS	AYALA/CEDAR	WIDEN AND RECONSTRUCT BASELINE FROM WEST CITY LIMITS TO AYALA DR FROM 2 TO 4 LANES	2035	$13,528
4A07335	BASELINE			CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF BASELINE AND TAMARIND	2035	$1,380
4A07083	BASELINE AV	MANGO	MAPLE	BASELINE AVE FROM MANGO AVE TO MAPLE AVE WIDEN FROM 2 TO 6 LANES	2012	$4,797
4A07212	BASELINE AV	SIERRA	MANGO	BASELINE AVE FROM SIERRA AVE TO MANGO AVE WIDEN FROM 2 TO 6 LANES	2012	$1,599
4A07074	BEAR VALLEY CUTOFF	JOSHUA RD	SR-18	WIDEN BEAR VALLEY CUOFF FROM JOSHUA RD TO SR-18 FROM 2 TO 6 LANES	2020	$7,594
4A01011	BEAR VALLEY RD	APPLE VALLEY RD	NAVAJO RD	WIDEN FROM 2 TO 3 LANES EACH DIR	2023	$14,231
4A07080	BEAR VALLEY RD	NAVAJO	JOSHUA RD	WIDEN BEAR VALLEY RD FROM NAVAJO RD TO JOSHUA RD FROM 2 TO 4 LANES	2018	$7,010

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07156	BEAR VALLEY RD	US HWY 395	ASTER RD (MONTE VISTA RD)	WIDEN BEAR VALLEY FROM US HWY 395 TO ASTER RD FROM 2 LANES TO 6 LANES.	2020	$4,710
4A07355	BEAR VALLEY RD	1920' E/O TOPAZ RD	AT POWER LINE EASEMENT	WIDEN BEAR VALLEY RD FROM 1920' E/O TOPAZ RD TO POWER LINE EASEMENT	2020	$427
4A07391	BEAR VALLEY RD	1270' W/O TOPAZ RD	AT POWER LINE EASEMENT	WIDEN BEAR VALLEY RD FROM 1270' W/O TOPAZ RD TO POWER LINE EASEMENT FROM 2 TO 4 LANES	2020	$48
4A07104	BEECH	RANDALL AV	ARROW ROUTE	WIDEN BEECH AVE FROM RANDALL AVE TO ARROW ROUTE FROM 2 TO 4 LANES	2020	$5,718
4A07157	BEECH	VALLEY	RANDALL	WIDEN BEECH AVE FROM VALLEY TO RANDALL AVE FROM 2 TO 4 LANES	2020	$4,163
4A07185	BEECH	ARROW ROUTE	SH-66	WIDEN BEECH AVE FROM ARROW ROUTE TO SH-66 FROM 2 TO 4 LANES	2020	$2,831
4A04407	BELLFLOWER ST	MOJAVE DR	BARTLETT RD	WIDEN FROM 2 TO 4 LANES EACH DIR	2018	$9,052
4A07096	BELLFLOWER ST	BEAR VALLEY RD	GOODWIN DR	WIDEN BELLFLOWER RD FROM BEAR VALLEY RD TO .5 MI. S/O GOODWIN DR FROM 0 LANES TO 4 LANES.	2020	$7,064
4A04192	BELLGRAVE AVE	MERRILL AVE	MILLIKEN AVE (HAM-NER AVE)	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$11,569
4A07294	BENSON AVE	HOWARD	N/STATE	WIDEN BENSON AVE FROM HOWARD ST TO STATE ST FROM 2 TO 4 LANES	2020	$944
4A07298	BENSON AVE	PHILLIPS BLVD	N/ HOWARD	WIDEN BENSON AVE FROM PHILLIPS BLVD TO HOWARD ST FROM 2 TO 4 LANES	2020	$888
4A01025	BIG BEAR BL	WEST CITY LIMITS	EAST CITY LIMITS	WIDEN FROM 1 TO 2 LANES EACH DIR	2010	$20,680
4A07186	BIG BEAR BL	VILLAGE DR.	EAST CITY LIMITS	CONSTRUCTION OF NEW SIDEWALKS AND REPAIR OF EXISTING SIDEWALKS	2010	$1,875
4A07195	BIG BEAR BL	WEST CITY LIMITS	EAST CITY LIMITS	INTERSECTION SIGNALIZATION AND SYNCHRONIZATION	2013	$2,022
4A07241	BLOOMINGTON AVE	CEDAR	LARCH	WIDEN BLOOMINGTON AVE FROM CEDAR TO LARCH FROM 2 TO 4 LANES	2020	$1,665
4A07009	BOULDER AVE	BASE LINE	5TH ST	WIDEN BOULDER AVE FROM 2 LANES TO 4 LANES (INCLUDING BRIDGE).	2010	$18,407
4A07168	BOULDER AVE	5TH ST	S. CITY LIMITS	WIDEN BOULDER AVE FROM 5TH ST TO S. CITY LIMITS FROM 2 TO 4 LANES (INCLUD-ING BRIDGE)	2018	$2,775
4A04417	BRYANT ST	NORTH CITY LIMITS	COUNTY LINE RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2030	$17,426

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07304	BRYANT ST	JUNIPER AVE	SR-38	WIDEN BRYANT ST FROM JUNIPER AVE TO SR-38 FROM 2 TO 4 LANES	2020	$833
4A07192	C STREET	0007M W, JACK-SON	E/0007M,TEJON AVE	WIDEN C STREET FROM 0007M W, JACKSON E/0007M E, TEJON AVE FROM 2 TO 4 LANES	2020	$2,665
4A01256	CACTUS AV	VIRGINIA	BASELINE RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$465
4A07336	CACTUS AV			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF CACTUS AND RANDALL	2007	$325
4A07337	CACTUS AV			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF CACTUS AND WALNUT	2007	$325
4A07143	CALABASH AVE	WHITTRAM AVE	N/FOOTHILL BLVD	WIDEN CALABASH AVE FROM WHITTRAM AVE TO N/FOOTHILL BLVD FROM 2 TO 4 LANES	2020	$4,552
4A01367	CALIFORNIA ST	YUCAIPA BLVD	COUNTY LINE RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$2,047
4A04238	CALIFORNIA ST	LUGONIA AV	SAN BERNARDINO AV	WIDEN FROM 1 TO 3 LANES EACH DIR	2010	$985
4A07184	CALIFORNIA ST	REDLANDS BL	I-10	WIDEN CALIFORNIA ST FROM REDLANDS BL TO I-10 FROM 5 TO 6 LANES	2010	$1,914
4A07190	CALIFORNIA ST	SAN BERNARDINO	PALMETTO	WIDEN CALIFORNIA ST FROM SAN BERNARDINO AVE TO PALMETTO AVE FROM 2 TO 6 LANES	2020	$2,776
4A07291	CALIFORNIA ST	ALMOND AVE	SAN BERNARDINO AVE	WIDEN CALIFORNIA ST FROM ALMOND AVE TO SAN BERNARDINO AVE FROM 3 TO 6 LANES	2020	$999
4A01368	CALIMESA BL	OAK GLEN RD	COUNTY LINE RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2010	$2,296
4A04193	CAMPUS AV	RIVERSIDE DR	MERRILL AVE	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$4,889
4A04295	CAMPUS AV	16TH ST	18TH ST	WIDEN FROM 1 TO 2 LANES EACH DIR	2007	$1,850
4A07139	CAMPUS AV	FRANCIS	HOLT	WIDEN CAMPUS FROM FRANCIS TO HOLT FROM 2 TO 4 LANES	2018	$3,764
4A07181	CAMPUS PKWY	KENDALL	I-215	CAMPUS PKWY (PEPPER-LINDEN) EXTENSION FROM KENDALL TO I-215. CONSTRUCT 4 LANES AND A PARTIAL DIAMOND INTERCHANGE	2020	$2,573
4A04084	CASA GRANDE AVE	LYTLE CREEK KNOX	SIERRA AV	NEW ROAD, 2 LANES EACH DIR	2010	$5,205
4A04085	CASA GRANDE AVE	SIERRA AV	MANGO AV	NEW ROAD, 2 LANES EACH DIR	2010	$1,010
4A01086	CASMALIA AVE (CARTER AVE)	SIERRA AV	MANGO AV	NEW WIDEN ROAD, 2 LANES EACH DIR	2010	$1,554

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A01026	CENTRAL AV	FRANCIS AV	RIVERSIDE DR	WIDEN FROM 3 TO 4 LANES EACH DIR	2020	$4,562
4A01027	CENTRAL AV	CHINO AVE	EL PRADO	WIDEN FROM 2 TO 3 LANES EACH DIR (NOTE: OVERLAPS RTIP#SBD41236 SBD31933 FROM SR-71 TO EL PRADO)	2020	$3,064
4A01267	CENTRAL AV	MONTCLAIR CITY LIMIT	CHINO CITY LIMIT	WIDEN FROM 2 TO 3 LANES EACH DIR	2020	$2,314
4A01296	CENTRAL AV	FOOTHILL BL	BENSON AV	NEW ROAD, 2 LANES EACH DIR	2020	$20,939
4A01297	CENTRAL AV	SOUTH CITY LIMITS	ARROW ROUTE	WIDEN FROM 2 TO 3 LANES EACH DIR	2030	$6,967
4A01266	CENTRAL AVE	PHILLIPS BLVD	STATE ST	WIDEN CENTRAL AVE FROM PHILLIPS BLVD TO STATE ST FROM 4 TO 6 LANES	2020	$3,442
4A07015	CENTRAL RD	BEAR VALLEY	WAALEW	WIDEN CENTRAL RD FROM BEAR VALLEY RD TO WAALEW RD FROM 2 TO 4 LANES	2020	$24,863
4A07091	CENTRAL RD	ROUNDUP WY	N/ POPPY	WIDEN CENTRAL RD FROM ROUNDUP WY TO N/ POPPY RD FROM 2 TO 4 LANES	2020	$6,661
4A07048	CERES AVE	MERRIL	CATAWBA	WIDEN CERES AVE FROM MERRILL AVE TO CATAWBA AVE FROM 2 TO 4 LANES	2020	$10,103
4A07040	CHERRY	VALLEY	FOOTHILL	WIDEN CHERRY AV FROM VALLEY TO FOOTHILL BLVD FROM 4 TO 6 LANES	2020	$12,823
4A01089	CHERRY AV	JURUPA AV	SLOVER AV	WIDEN FROM 1 TO 3 LANES EACH DIR	2010	$4,713
4A04087	CHERRY AV	HIGHLAND	I-15	WIDEN FROM 1 TO 3 LANES EACH DIR	2012	$3,101
4A04091	CHERRY AV	VALLEY BL	SAN BERNARDINO AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2018	$3,734
4A04194	CHINO AV	EUCLID AV	MILLIKEN BL	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$14,829
4A01028	CHINO AVE	CENTRAL AVE	MOUNTAIN AVE	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$3,909
4A01029	CHINO AVE	CENTRAL AVE	600' EAST OF MONTE VISTA	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$3,618
4A01030	CHINO AVE	FERN AV	EUCLID AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2010	$4,487
4A01031	CHINO AVE	SR-71	EAST END AVE	WIDEN FROM 2 TO 3 LANES EACH DIR	2035	$4,199
4A07205	CHINO AVE	MOUNTAIN	FERN	WIDEN CHINO FROM MOUNTAIN TO FERN FROM 2 TO 4 LANES	2018	$1,952
4A01062	CHINO HILLS PKWY	RAMONA	600 FT. EAST OF RAMONA	WIDEN FROM 2 TO 3 LANES EACH DIR	2020	$1,532

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A01239	CHURCH ST	COLTON AV	REDLANDS BL	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: RTIP#SBD59012 WIDENS FROM COL-TON TO CLARK)	2012	$4,858
4A01093	CITRUS AV	I-15	SUMMIT AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$7,468
4A01094	CITRUS AV	SAN BERNARDINO AV	VALLEY BL	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$1,867
4A01096	CITRUS AV	SLOVER AV	JURUPA AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$5,601
4A04095	CITRUS AV	SAN BERNARDINO AV	FOOTHILL BLVD	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$2,427
4A04240	CITRUS AV	DEARBORN ST	WABASH AV	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: RTIP#SBD58044 WIDENS FROM AU-BURN CT TO WABASH)	2012	$1,171
4A07331	CIVIC DR	MOJAVE DR	ROY RODGERS DR	WIDEN CIVIC DR FROM MOJAVE DR. TO ROY ROGERS DR. FROM 0 TO 4 LANES	2020	$617
4A07081	COLSTON	TIPPECANOE	MT. VIEW	WIDEN COLSTON AV FROM TIPPECANOE TO MT. VIEW FROM 2 TO 4 LANES	2030	$12,223
4A07108	COLTON AVE	WABASH AV	CRAFTON AV	WIDEN COLTON AV FROM WABASH AV TO CRAFTON AV FROM 2 TO 4 LANES	2020	$5,607
4A07027	COMMERCE WAY	PICO	MAIN ST.	WIDEN COMMERCE WY FROM PICO AVE TO MAIN ST FROM 2 TO 4 LANES	2012	$11,917
4A07085	COMMERCE WAY	900 FT. NORTH OF DE BERRY	PICO	WIDEN COMMERCE WY FROM 900' N/O DEBERRY RD TO PICO AV FROM 2 TO 4 LANES	2010	$4,661
4A07150	CONE CAMP	GREENSPOT	SOUTH CITY LIMIT	CONSTRUCT NEW STREET CONE CAMP FROM GREENSPOT RD TO SOUTH CITY LIM-ITS FROM 0 TO 2 LANES (INCLUDING ENVIRONMENTAL)	2030	$7,624
4A07093	CONNECTOR	3RD	5TH	BUILD A CONNECTOR ROAD BETWEEN 3RD ST AND 5TH ST FROM 0 TO 4 LANES	2020	$7,514
4A01013	CORWIN RD	SR-18	DALE EVANS PKWY	WIDEN FROM 1 TO 2 LANES EACH DIR	2012	$17,720
4A01370	COUNTY LINE RD	I-10	BRYANT ST	WIDEN FROM 1 TO 2 LANES EACH DIR	2010	$2,348
4A07114	COYOTE CNYN	SADDLEBACK	I-15	COYOTE CANYON RD FROM SADDLEBACK RD TO I-15 WIDEN FROM 0 TO 4 LANES	2018	$4,481
4A07028	CRAFTON HILLS PARKWAY	WABASH AVE	OVERCREST/TEN-NESSEE	PAVE DIRT ROAD, 1 LANE EACH DIR	2020	$16,653

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07238	CRAFTON HILLS PKWY	WABASH AVE	E/CRAFTON PUD	WIDEN CRAFTON HILLS PKWY FROM WABASH AVE TO E/CRAFTON PUD FROM 0 TO 2 LANES	2035	$4,331
4A07328	CUNNINGHAM ST	9TH ST	BASE LLINE	WIDEN CUNNINGHAM	2018	$475
4A01241	CYPRESS AV	I-10	CITRUS AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$641
4A04098	CYPRESS AV	SOUTH HIGHLAND AV	SIERRA LAKES PARKWAY	NEW OVERCROSSING AT 210, 2 LANES EACH DIR	2020	$14,987
4A07007	DALE EVANS PKWY	THUNDERBIRD RD	I-15	WIDEN DALE EVANS PKWY FROM THUNDERBIRD RD TO I-15 FROM 2 LANES TO 4 LANES.	2020	$33,150
4A07130	DALEY CANYON AT SH 18	IN SAN BERNAR-DINO COUNTY		INTERSECTION IMPROVEMENTS	2020	$4,934
4A07063	DEEP CREEK RD	BEAR VALLEY RD	SITTING BULL RD	WIDEN DEEP CREEK RD FROM BEAR VALLEY RD TO SITTING BULL RD FROM 0 TO 4 LANES	2023	$10,725
4A07069	DEEP CREEK RD	TUSSING RANCH RD	BEAR VALLEY RD	WIDEN DEEP CREEK RD FROM TUSSING RACH RD TO BEAR VALLEY RD FROM 2 TO 4 LANES	2018	$7,647
4A07010	DEL ORO RD	APPLE VALLEY RD	CENTRAL RD	WIDEN DEL ORO RD FROM APPLEY VALLEY RD TO CENTRAL RD FROM 0 LANES TO 2 LANES	2018	$26,764
4A07232	DEL ROSA	6TH ST	9TH ST	WIDEN DEL ROSA AVE FROM 6TH ST TO 9TH ST FROM 2 TO 4 LANES	2012	$1,380
4A07380	DEL ROSA AVE	DEL ROSA DR	SAN BERNARDINO CITY LIMITS	WIDEN DEL ROSA AVE FROM DEL ROSA DR TO SAN BERNARDINO CITY LIMITS FROM 2 TO 4 LANES	2020	$222
4A07214	DEL ROSA DR	3RD ST	N.CITY LIMIT	WIDEN DEL ROSA DR FROM 3RD ST TO N.CITY LIMIT FROM 2 LANES TO 4 LANES.	2018	$1,832
4A07256	DEL ROSA DRIVE	BASE LINE RD	PACIFIC ST	WIDEN DEL ROSA DR FROM BASE LINE RD TO PACIFIC ST FROM 2 TO 4 LANES	2020	$1,388
4A07125	DEVORE RD	I-215 OFF RAMP	KENWOOD DR	WIDEN DEVORE RD FROM I-215 TO KENWOOD DR FROM 2 TO 4 LANES	2020	$4,940
4A07270	DEVORE RD	CAJON BLVD	N/O I-215 OFF RAMPS	WIDEN DEVORE RD FROM CAJON BLVD TO N/O I-215 OFF RAMPS FROM 2 TO 4 LANES	2020	$1,166
4A07300	DEVORE RD	KENWOOD DR	FOOTHILL DR	WIDEN DEVORE RD FROM KENWOOD DR TO FOOTHILL DR FROM 2 TO 4 LANES	2020	$888
4A07088	DOS PALMAS	PACOIMA RD	BOREGO RD	WIDEN DOS PALMAS RD FROM PACOIMA RD TO BOREGO RD FROM 2 TO 4 LANES	2020	$6,883

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
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4A07220	DOS PALMAS	SAN MATEO RD	PACOIMA	WIDEN DOS PALMAS RD FROM SAN MATEO RD TO PACOIMA RD FROM 2 TO 4 LANES	2020	$2,165
4A01099	DUNCAN CANYON RD	CITRUS AV	SIERRA AV	NEW ROAD, 2 LANES EACH DIR	2018	$5,601
4A07297	DUNCAN CANYON RD	.33 M W/O I-15	E/O I-15	WIDEN DUNCAN CANYON RD FROM .33 M W/O I-15 TO E/O I-15	2020	$888
4A07037	E ST	MAIN ST	I ST	WIDEN E ST FROM MAIN ST TO I ST FROM 2 TO 4 LANES	2018	$11,881
4A07133	EAST END AVE	CHINO AVE	WALNUT AVE	WIDEN EAST END AVE FROM CHINO AVE TO WALNUT AVE FROM 2 TO 4 LANES	2020	$4,774
4A07146	EAST END AVE	PHILADELPHIA AV	PHILLIPS BLVD	WIDEN EAST END AV FROM PHILADELPHIA AV TO PHILLIPS BLVD FROM 2 TO 4 LANES	2020	$4,441
4A07333	EAST END AVE	PHILLIPS BLVD	GRAND AV	WIDEN EAST END AV FROM PHILLIPS BLVD TO GRAND AV FROM 2 TO 4 LANES	2035	$1,380
4A01032	EDISON AV	CENTRAL AV	EUCLID AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2018	$5,068
4A01033	EDISON AV	PIPELINE	RAMONA AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2018	$3,163
4A04196	EDISON AV	MILL CREEK	MILLIKEN BL	WIDEN FROM 1 TO 4 LANES EACH DIR	2018	$6,844
4A04197	EDISON AV	EUCLID AV	WALKER AV	WIDEN FROM 1 TO 3 LANES EACH DIR	2018	$11,470
4A04198	EDISON AV	VINEYARD AV	MILL CREEK	WIDEN FROM 1 TO 4 LANES EACH DIR	2018	$3,096
4A04199	EDISON AV	WALKER AV	VINEYARD AV	WIDEN FROM 1 TO 4 LANES EACH DIR	2018	$20,205
4A07174	EIGHT ST			CONSTRUCT A BRIDGE ON EIGHT ST OVER CUCAMONGA CREEK	2018	$2,627
4A07099	EL EVADO	LA BRISA RD	ANACAPA RD	WIDEN EL EVADO RD FROM LAS BRISA RD TO ANACAPA RD FROM 2 TO 4 LANES	2020	$5,995
4A07307	EL EVADO RD	1260' N/O HOOK BL	AT POWER LINE EASEMENT	WIDEN EL EVADO RD FROM 1260' N/O HOOK BL TO POWER LINE EASEMENT	2020	$929
4A07330	EL EVADO RD	510' S/O RANCHO RD	AT POWER LINE EASEMENT	WIDEN EL EVADO RD FROM 510' S/O RANCHO RD TO AT POWER LINE EASEMENT FROM 2 TO 4 LANES	2020	$627
4A01004	EL MIRAGE RD	RICHARDSON RD	US-395	WIDEN FROM 2 TO 4 LANES EACH DIR	2018	$10,632
4A01270	EL MIRAGE RD	KOALA RD	LA COUNTY LINE	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: #4A01004 IN ADELANTO WIDENS FROM RICHARDSON TO US-395 TO 4 LANES EACH DIR IN 2015)	2020	$39,544
4A04408	EL MIRAGE RD	US-395	ADELANTO RD	NEW ROAD, 2 LANES EACH DIR	2010	$3,995
4A01063	EL PRADO RD	CENTRAL AV	PINE AVE	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$1,871

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
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4A07087	EL RIVINO RD	CEDAR AV	AGUA MANSA RD	WIDEN EL RIVINO RD FROM CEDAR AV TO AGUA MANSA RD FROM 2 TO 4 LANES	2020	$6,883
4A07094	ELECTRIC AVE	MT. VIEW	NORTHPARK BLVD	WIDEN ELECTRIC AVE FROM MT VIEW AVE TO NORTHPARK BLVD FROM 2 TO 4 LANES	2030	$11,112
4A07209	EMERALD RD	PALMDALE RD	SENECA RD	WIDEN EMERALD RD FROM PALMDALE RD TO SENECA RD FROM 2 TO 4 LANES	2020	$2,442
4A01149	ESCONDIDO AV	MAIN ST	SULTANA ST	WIDEN FROM 1 TO 3 LANES EACH DIR	2012	$1,846
4A04200	EUCALYPTUS AV	EUCLID AV	WALKER AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$692
4A07358	EUCALYPTUS AV			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF EUCALYPTUS AND MOUNTAIN	2009	$203
4A01151	EUCALYPTUS ST	I-15	PEACH AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$30,110
4A07249	EUCALYPTUS ST	AMARGOSA RD	AMETHYST RD	WIDEN EUCALYPTUS ST FROM AMARGOSA RD TO AMETHYST RD FROM 0 TO 6 LANES	2020	$1,648
4A07286	EUCALYPTUS ST	MESA VIEW DR	BELLFLOWER RD	WIDEN EUCALYPTUS ST FROM MESA VIEW DR. TO BELLFLOWER RD FROM 0 TO 4 LANES (VICTORVILLE PORTION ONLY)	2020	$1,176
4A07287	EUCALYPTUS ST	US-395	MESA VIEW DR.	WIDEN EUCALYPTUS ST FROM US 395 TO MESA VIEW DR. FROM 0 TO 4 LANES	2020	$1,176
4A04035	EUCLID AV	KIMBALL	PINE	WIDEN FROM 2 TO 4 LANES EACH DIR	2020	$3,722
4A04036	EUCLID AV	PINE	SR71	WIDEN FROM 1 TO 4 LANES EACH DIR	2035	$48,831
4A04201	EUCLID AV	RIVERSIDE DR	MERRILL AV	WIDEN FROM 2 TO 4 LANES EACH DIR	2018	$7,985
4A07118	EUCLID AVE	24TH	MOUNTAIN AV	WIDEN EUCLID AVE FROM 24TH ST TO MOUNTAIN AVE FROM 2 TO 4 LANES	2020	$5,329
4A07012	EVANS ST. PHASE I	REDLANDS BLVD.	UPRR	NEW ROAD, 2 LANES EACH DIR	2012	$17,819
4A07002	EVANS ST. PHASE II	UPRR	BARTON RD.	NEW ROAD, 2 LANES EACH DIR	2014	$40,719
4A07057	FAIRFIELD RANCH ROAD	SKATE PARK	PINE AVENUE	EXTEND THE THE EXISTING FAIRFIELD RANCH ROAD TO PINE AVENUE, 2 LANES WITH BIKE LANES	2014	$6,950
4A04067	FAIRWAY DR	SPERRY DR	CITY LIMITS	WIDEN FROM 2 TO 4 LANES EACH DIR	2018	$2,071
4A07006	FALCHION RD	I-15	DALE EVANS PKWY	WIDEN FALCHION RD FROM I-15 TO DALE EVANS PKWY FROM 0 TO 4 LANES	2009	$21,079
4A07161	FALCHION RD	DALE EVANS	NAVAJO	WIDEN FALCHION RD FROM DALE EVANS PKWY TO NAVAJO RD FROM 0 TO 6 LANES	2018	$3,823
4A07361	FERN			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF FERN AND RIVERSIDE	2008	$183
4A01262A	FIFTH AVE	WABASH AVE	CRAFTON AVE	WIDEN FIFTH AV FROM WABASH AV TO CRAFTON AV FROM 2 TO 4 LANES	2020	$5,329

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07230	FIFTH ST	PEDLEY RD	TIPPECANOE AV	WIDEN FIFTH ST FROM PEDLEY RD TO TIPPECANOE AVE FROM 2 TO 4 LANES	2020	$1,943
4A07234	FIFTH ST	WATERMAN AVE	PEDLEY RD	WIDEN FIFTH ST FROM WATERMAN AVE TO PEDLEY RD FROM 2 TO 4 LANES	2020	$1,887
4A07162	FLORIDA ST	GREENSPOT RD	GARNET ST	WIDEN FLORIDA ST FROM GREENSPOT RD TO GARNET ST FROM 2 TO 4 LANES	2020	$3,941
4A04101	FONTANA AV	VALLEY BL POPLAR	MERRILL	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$4,834
4A07014	FONTANA AVE	VALLEY	POPLAR	WIDEN FONTANA AVE FROM VALLEY BLVD TO POPLAR AVE FROM 2 TO 4 LANES	2020	$24,425
4A07098	FOOTHILL	COUNTY LINE	CENTRAL	WIDEN FOOTHILL FROM COUNTY LINE TO CENTRAL FROM 2 TO 6 LANES	2030	$9,500
4A01298	FOOTHILL BL	BENSON AV	EAST CITY LIMIT	WIDEN FROM 2 TO 3 LANES EACH DIR	2030	$32,935
4A04102	FOOTHILL BL	HEMLOCK	ALMERIA	WIDEN FROM 2 TO 3 LANES EACH DIR	2018	$10,082
4A01243	FORD ST	5TH AVE	I-10	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$2,833
4A01271	FORT IRWIN RD	I-15	FT IRWIN BOUNDARY	WIDEN FROM 1 TO 2 LANES EACH DIR	2010	$15,960
4A01272	FRANCIS	EAST END	TELEPHONE	WIDEN FRANCIS FROM EAST END TO TELEPHONE FROM 2 TO 4 LANES	2020	$9,048
4A01037	FRANCIS AV	WEST CITY LIMIT	BENSON AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$1,495
4A01273	FRANCIS AV	LA COUNTY LINE	CHINO CITY LIMIT	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$7,703
4A01203	FRANCIS ST	BENSON AV	MOUNTAIN AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$192
4A07208	FRANCIS ST			CONSTRUCT A BRIDGE ON FRANCIS ST OVER CUCAMONGA CREEK	2018	$1,986
4A07227	FRANCIS ST			CONSTRUCT A BRIDGE ON FRANCIS ST OVER WEST CUCAMONGA CREEK	2018	$1,623
4A01104	FRONTAGE RD (I-15)	DUNCAN CANYON RD	RIVERSIDE AV	NEW ROAD, 2 LANES EACH DIR	2018	$6,535
4A07176	G ST	MILL ST	RIALTO AV	WIDEN "G" ST FROM MILL ST TO RIALTO AVE FROM 2 TO 4 LANES	2020	$3,315
4A07169	GARNET ST	NEWPORT	FLORIDA ST	WIDEN GARNET ST FROM NEWPORT AV TO FLORIDA ST FROM 2 TO 4 LANES	2020	$3,331
4A07314	GARNET ST	SR 38	NEWPORT AVE	WIDEN GARNET ST FROM SR 38 TO NEWPORT AVE FROM 2 TO 4 LANES	2020	$722
4A07320	GARNET ST	MENTONE AV	SR 38	WIDEN GARNET ST FROM MENTONE AV TO SR 38 FROM 2 TO 4 LANES	2020	$666

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07352	GARNET ST	.08 S/O MENTONE AVE	MENTONE AVE	WIDEN GARNET ST FROM .08 M S/O MENTONE AV TO MENTONE AV FROM 2 TO 4 LANES	2020	$444
4A07018	GLEN HELEN PKWY	LYTLE CREEK RD	NELY/CAJON	WIDEN GLEN HELEN PKWY FROM LYTLE CREEK TO NELY/CAJON BLVD FROM 2 TO 4 LANES	2020	$20,484
4A07036	GLEN HELEN PKWY	LYTLE CREEK RD	I-15	WIDEN GLEN HELEN PKWY FROM LYTLE CREED RD TO I-15 FROM 2 TO 4 LANES	2020	$13,878
4A07127	GLEN HELEN RD	GLEN HELEN PKWY	NW/END	WIDEN GLEN HELEN RD FROM GLEN HELEN PKWY TO NW/END FROM 2 TO 4 LANES	2020	$4,996
4A07144	GRAND AVE	EAST END RD	RAMONA AVE	WIDEN GRAND AVE FROM EAST END RD TO RAMONA AVE FROM 2 TO 4 LANES	2020	$4,552
4A07246	GRAND AVE	GREENWOOD WY	MONTE VISTA	WIDEN GRAND AVE FROM GREENWOOD WY TO MONTE VISTA	2020	$1,554
4A07011	GREEN TREE BVD	HESPERIA RD	RIDGECREST RD	AT ATS&F RAILROAD CONSTRUCT 4-LANE BRIDGE; WIDEN GREEN TREE 0 TO 4 LANES	2020	$29,200
4A01173	GREENSPOT RD	GOLD BUCKLE	SANTA ANA RIVER	WIDEN FROM 2 TO 4 LANES (NOTE: RTIP#200212 WIDENS BRIDGE PORTION)	2018	$23,841
4A07019	GREENSPOT RD	SANTA ANA RIVER	BRYANT	CONSTRUCT NEW STREET, GREENSPOT RD TO CONNECT TO BRYANT FROM 0 TO 2 LANES WITHIN CITY LIMIT (INCLUDING BRIDGE)	2020	$21,223
4A07044	GREENSPOT RD	ORANGE ST	SR 30	WIDEN 5TH STREET FROM BOULDER AVENUE TO SR-30 FROM 2 TO 6 LANES (IN-CLUDING SR-30 UNDERCROSSING)	2012	$7,987
4A07213	GREENSPOT RD	SANTA ANA RIVER	CITY LIMIT	WIDEN GREENSPOT RD FROM SANTA ANA RIVER TO CITY LIMIT	2020	$2,383
4A07236	GREENSPOT RD	ORANGE ST	CHURCH ST	WIDEN 5TH ST FROM ORANGE ST TO CHURCH ST	2010	$1,223
4A07295	GREENSPOT RD	.19 M N/O FLORIDA ST	FLORIDA ST	WIDEN GREENSPOT RD FROM .19 M N/O FLORIDA ST TO FLORIDA ST FROM 2 TO 4 LANES	2020	$944
4A04206	GROVE AV	RIVERSIDE DR	MERRILL AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$812
4A04207	GROVE AV	AIRPORT DR	HOLT BLVD	WIDEN EXISTING GRADE SEPARATION FROM 2 TO 3 LANES EACH DIR	2018	$13,326
4A07263	H ST	KENDALL DR	40TH ST	WIDEN "H" ST FROM KENDALL DR TO 40TH ST FROM 2 TO 4 LANES	2030	$2,222
4A04208	HAVEN AV	RIVERSIDE DR	BELLEGRAVE AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$4,462
4A04038	HELLMAN AVE	KIMBALL	CHINO CORONA RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$5,735
4A07129	HESPERIA	MESQUITE	LIME	WIDEN HESPERIA RD FROM MESQUITE TO LIME FROM 0 TO 4 LANES	2030	$6,706

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07206	HESPERIA	LIME	MAIN	WIDEN HESPERIA RD FROM LIME TO MAIN FROM 2 TO 4 LANES	2018	$3,879
4A01152	HESPERIA RD	BEAR VALLEY	YUCCA ST	WIDEN FROM 1 TO 2 LANES EACH DIR	2014	$9,889
4A01244	HIGHLAND AV	REDLANDS BL	FORD ST	WIDEN FROM 1 TO 2 LANES EACH DIR	2030	$3,679
4A07261	HIGHLAND AV	CAJON ST	REDLANDS BL	WIDEN HIGHLAND FROM CAJON TO REDLANDS BL FROM 3 TO 4 LANES	2035	$3,397
4A07136	HIGHLAND AVE	CHURCH ST	BOULDER AVE	WIDEN HIGHLAND AVE FROM CHURCH ST TO BOULDER AVE FROM 2 TO 4 LANES	2018	$3,837
4A07258	HIGHLAND AVE	OLIVE ST	800' W/O VICTORIA AVE	WIDEN HIGHLAND AVE FROM OLIVE ST TO 800' W/O VICTORIA AVE	2020	$1,456
4A07280	HIGHLAND AVE	BOULDER AVE	200' W/O DENAIR AVE	WIDEN HIGHLAND AVE FROM BOULDER AVE TO 200' W/O DENAIR AVE	2020	$1,156
4A01210	HOLT BL	BENSON AV	VINEYARD AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2018	$30,114
4A07035	HOLT BLVD			CONSTRUCT A BRIDGE ON HOLD BLVD OVER WEST CUCAMONGA CREEK	2018	$11,528
4A07327	HOLT BLVD			CONSTRUCT A BRIDGE ON HOLT BLVD OVER CUCAMONGA CREEK	2018	$497
4A01325	HOOK BL	US-395	AMETHYST RD	WIDEN HOOK FROM US 395 TO 0.4 MILES WEST OF AMETHYST 0 TO 4 LANES	2020	$1,859
4A07383	HOOK BLVD	1680' W/O EMER-ALD RD	AT POWER LINE EASEMENT	WIDEN HOOK BLVD FROM 1680' W/O EMERALD RD TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	2020	$155
4A07389	HOOK BLVD	1820' E/O US-395	AT POWER LINE EASEMENT	WIDEN HOOK BLVD FROM 1820' E/O US-395 TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	2020	$102
4A07309	HOPLAND ST	US-395	COBALT RD	WIDEN HOPLAND ST FROM US-395 TO COBALT RD FROM 0 TO 4 LANES (VICTORVILLE PORTION ONLY)	2020	$889
4A07387	HOPLAND ST	JUST W/O AM-ETHYST RD	AT POWER LINE EASEMENT	WIDEN HOPLAND ST FROM JUST W/O AMETHYST RD TO AT POWER LINE EASEMENT FROM 2 TO 4 LANES	2020	$112
4A01212	INLAND EMPIRE BL	VINEYARD AV	ARCHIBALD AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2018	$8,095
4A07067	INSTITUTION ROAD	IN SAN BERNAR-DINO COUNTY		ELEVATE ROADWAY	2020	$8,224
4A01107	JURUPA AV	ETIWANDA AV	LIVE OAK SIERRA	WIDEN FROM 1 TO 3 LANES EACH DIR	2012	$19,190
4A04108	JURUPA AV	SIERRA AV TAMA-RIND	ALDER AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$1,242
4A07165	JURUPA AV	LOCUST AVE	CEDAR AVE	WIDEN JURUPA AVE FROM LOCUST AVE TO CEDAR AVE FROM 2 TO 4 LANES	2020	$3,664

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07111	JURUPA AVE	CEDAR AVE	LILAC AVE	WIDEN JURUPA AVE FROM CEDAR AVE TO LILAC AVE FROM 2 TO 4 LANES	2020	$5,551
4A07250	JURUPA AVE	TAMARIND	ALDER	WIDEN JURUPA AVE FROM TAMARIND AVE TO ALDER AVE FROM 2 TO 6 LANES	2020	$1,443
4A07299	JURUPA AVE	LILAC AVE	WILLOW AVE	WIDEN JURUPA AVE FROM LILAC AVE TO WILLOW AVE FROM 2 TO 4 LANES	2020	$888
4A01213	JURUPA ST	TURNER AV	ARCHIBALD AV	WIDEN FROM 1 TO 3 LANES EACH DIR	2018	$4,364
4A01068	K AND L STREETS	3RD ST	5TH ST	WIDEN TO 1 LANE EACH DIR	2010	$355
4A07060	KENDALL DR	PALM AVE	CAJON BLVD	WIDEN KENDALL DR FROM PALM AVE TO CAJON BLVD FROM 2 TO 4 LANES	2020	$8,826
4A07086	KENDALL DR	CAMBRIDGE	PINE	WIDEN KENDALL DR FROM CAMBRIDGE AVE TO PINE AVE FROM 2 TO 4 LANES	2030	$12,154
4A01377	KICKAPOO TRAIL	SR-62	YUCCA TRAIL	NEW ROAD, 1 LANE EACH DIR	2010	$239
4A07052	KIMBALL	EUCLID	HELLMAN	WIDEN KIMBALL FROM EUCLID TO HELLMAN FROM 2 TO 4 LANES	2018	$7,318
4A07366	KIMBALL			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF KIMBALL AND CAMPUS	2015	$213
4A07367	KIMBALL			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF KIMBALL AND EARNHART	2015	$213
4A07368	KIMBALL			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF KIMBALL AND MAIN	2015	$213
4A07369	KIMBALL			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF KIMBALL AND MILLCREEK	2015	$213
4A07370	KIMBALL			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF KIMBALL AND WALKER/ FLIGHT	2015	$213
4A04017	KIOWA RD	YUCCA LOMA RD	BEAR VALLEY RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2012	$5,907
4A07070	KIOWA RD	OCOTILLO RD	BEAR VALLEY RD	WIDEN KIOWA RD FROM OCOTILLO RD TO BEAR VALLEY RD FROM 2 TO 4 LANES	2023	$9,900
4A04409	KOALA RD	PALMDALE RD	HOLLY RD	NEW ROAD, 2 LANES EACH DIR	2030	$12,470
4A04410	KOALA RD	HOLLY RD	EL MIRAGE RD	WIDEN FROM 2 TO 4 LANES EACH DIR	2030	$17,292
4A04411	KOALA RD	EL MIRAGE RD	DESOTO RD	NEW ROAD, 1 LANE EACH DIR	2030	$4,455
4A01069	LA CADENA DR	RANCHO AV	SOUTH CITY LIMITS	WIDEN FROM 2 TO 3 LANES EACH DIR	2020	$4,662
4A07092	LA MESA RD	BALDY MESA	CANTINA	WIDEN LA MESA RD FROM BALDY MESA TO CANTINA DR FROM 0 LANES TO 4 LANES.	2020	$7,371

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
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4A07224	LA MESA RD	CAUGHLIN RD	WHITE RD	WIDEN LA MESA RD FROM CAUGHLIN RD TO WHITE RD FRM 0 TO 4 LANES	2020	$2,354
4A07288	LA MESA RD	WHITE RD	BALDY MESA RD	WIDEN LA MESA RD FROM WHITE RD TO BALDY MESA RD FROM 0 TO 4 LANES (VICTORVILLE PORTION ONLY)	2020	$1,176
4A07382	LA MESA RD	2010' E/O TOPAZ RD	AT POWER LINE EASEMENT	WIDEN LA MESA RD FROM 2010' E/O TOPAZ RD TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	2020	$183
4A07231	LANKERSHIM AV	5TH ST	1200' N/O 9TH ST	WIDEN LANKERSHIM AV FROM 5TH ST TO 1200' N/O 9TH ST	2020	$2,036
4A01293	LEAR AV/SUNFAIR RD	POLELINE RD	MCAS	NEW ROAD, 2 LANES EACH DIR	2012	$22,765
4A01155	LEMON ST	MAUNA LOA	MOHAVE RIVER	WIDEN FROM 1 TO 2 LANES EACH DIR	2030	$14,469
4A07338	LILAC			CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF LILAC AND RIALTO	2035	$1,380
4A07134	LITTLE LEAGUE DR	PALM AVE	I-215 FRONTAGE RD	WIDEN LITTLE LEAGUE DR FROM PALM AVE TO I-215 FRONTAGE RD FROM 2 TO 4 LANES	2030	$8,334
4A07177	LITTLE LEAGUE DR	I-215 FRONTAGE RD	BELMONT AVE	WIDEN LITTLE LEAGUE DR FROM I-215 FRONTAGE RD TO BELMONT AVE (INCLUDING CULVERT) FROM 2 TO 4 LANES	2030	$5,556
4A07308	LITTLE MOUNTAIN DR	DEVIL CREEK CHANNEL	48TH ST	WIDEN LITTLE MIOUNTAIN RD FROM DEVIL CREEK CHANNEL TO 48TH ST FROM 2 TO 4 LANES	2030	$1,389
4A07187	LIVE OAK AVE	ARROW ROUTE	FOOTHILL	WIDEN LIVE OAK AVE FROM ARROW ROUTE TO FOOTHILL FROM 2 TO 4 LANES	2020	$2,776
4A01245	LIVE OAK CYN RD	SAN TIMOTEO CYN RD	EAST CITY LIMITS	WIDEN FROM 1 TO 2 LANES EACH DIR	2030	$17,451
4A01371	LIVE OAK CYN RD	WEST CITY LIMIT	I-10	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$2,636
4A04110	LIVE OAK RD	VALLEY BL	MERRILL	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$7,405
4A07183	LOCUST AVE	JURUPA AV	SANTA ANA AV	WIDEN LOCUST AVE FROM JURUPA AVE TO SANTA ANA AVE FROM 2 TO 4 LANES	2020	$2,887
4A07188	LOCUST AVE	SAN BERNARDINO AVE	RANDALL AVE	WIDEN LOCUST AVE FROM SAN BERNARDINO AVE TO RANDALL AVE FROM 2 TO 4 LANES	2020	$2,776
4A07189	LOCUST AVE	VALLEY BLVD	SAN BERNARDINO AVE	WIDEN LOCUST AVE FROM VALLEY BLVD TO SAN BERNARDINO AVE FROM 2 TO 4 LANES	2020	$2,776
4A07193	LOCUST AVE	SANTA ANA AV	SLOVER AVE	WIDEN LOCUST AVE FROM SANTA ANA AVE TO SLOVER AVE FROM 2 TO 4 LANES	2020	$2,665

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
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4A07315	LOCUST AVE	SEVENTH ST	ELEVENTH ST	WIDEN LOCUST AVE FROM SEVENTH ST TO ELEVENTH ST FROM 2 TO 4 LANES	2020	$722
4A01246	LUGONIA AV	TENESSEE ST	ORANGE ST	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$6,983
4A07229	LUGONIA AVE	CALIFORNIA	ALABAMA	WIDEN LUGONIA AVE FROM CALIFORNIA ST TO ALABAMA ST FROM 2 TO 4 LANES	2020	$1,943
4A07255	LUGONIA AVE	ALABAMA ST	TENNESEE ST	WIDEN LUGONIA AVE FROM ALABAMA ST TO TENNESEE ST FROM 2 TO 4 LANES	2020	$1,388
4A07045	LYTLE CREEK	SUMMIT AVE	SIERRA AVE	LYTLE CREEK FROM SUMMIT AVE TO SIERRA AVE WIDEN FROM 0 TO 4 LANES	2018	$9,336
4A01156	MAIN ST	7TH AV	I AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2035	$17,851
4A01157	MAIN ST	I-15	US HWY 395	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$5,710
4A01158	MAIN ST	I-15	ESCONDIDO AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2012	$1,107
4A07102	MAIN ST	I ST	ROCK SPRINGS RD	WIDEN MAIN ST FROM I ST TO ROCK SPRINGS RD FROM 4 TO 6 LANES	2025	$7,890
4A07217	MAIN ST	11TH ST	7TH ST	WIDEN MAIN ST FROM 11TH ST TO 7TH ST FROM 4 TO 6 LANES	2035	$5,058
4A07356	MAIN ST.(W.B.)	S.F.R.R.	S.P.R.R.	WIDEN MAIN ST (W.B.) FROM SFRR TO SPRR FROM 2 TO 4 LANES	2008	$231
4A07339	MAPLE			CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF MAPLE AND RIALTO	2035	$1,380
4A01159	MAPLE AV	EUCALYPTUS AV	MAIN ST	WIDEN FROM 1 TO 2 LANES EACH DIR	2030	$11,802
4A07090	MARIPOSA	EUCALYPTUS	BEAR VALLEY RD	WIDEN MARIPOSA FROM EUCALYPTUS TO BEAR VALLEY RD FROM 2 TO 4 LANES	2030	$9,109
4A07332	MARIPOSA RD	PALMDALE RD	YATES RD	WIDEN MARIPOSA RD FROM 0.2 MI. S/O PALMDALE RD TO YATES RD.	2020	$614
4A01161	MAUNA LOA	7TH AV	LEMON ST	NEW ROAD, 2 LANES EACH DIR	2035	$26,225
4A01162	MAUNA LOA	MAPLE AV	7TH AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2035	$18,114
4A07340	MERILL			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF MERRIL AND WILLOW	2007	$325
4A07120	MERRILL	WEST CITY LIMITS	RIVERSIDE	WIDEN MERRILL AVE FROM WEST CITY LIMITS TO RIVERSIDE FROM 2 TO 4 LANES	2035	$13,588
4A07385	MERRILL			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF MERRILL AND BON VIEW	2015	$107
4A07386	MERRILL			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF MERRILL AND WALKER	2015	$107
4A01040	MERRILL AV	EUCLID AV	EAST CITY LIMIT	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$2,001

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
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4A04114	MERRILL AV	CATAWBA	FONTANA AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$2,417
4A04214	MERRILL AV	GROVE AVE	MILLIKEN BL (HAM-NER)	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$521
4A07055	MERRILL AVE	CHERRY	CATAWBA	WIDEN MERRILL AVE FROM CHERRY AV TO CATAWBA FROM 2 TO 4 LANES	2020	$9,492
4A01163	MESQUITE ST	TOPAZ AV	MAPLE AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$1,075
4A07268	MICHIGAN ST	COMMERCE WY	DEBERRY ST	WIDEN MICHIGAN ST FROM COMMERCE WY TO DEBERRY ST FROM 2 LANES TO 4 LANES.	2010	$823
4A07310	MICHIGAN ST	BARTON RD	COMMERCE WY	WIDEN MICHIGAN ST FROM BARTON RD TO COMMERCE WY FROM 2 TO 4 LANES	2008	$488
4A07131	MIDWAY AVENUE	IN SAN BERNAR-DINO COUNTY		PAVE DIRT ROAD 1 LANE IN EACH DIRECTION	2020	$4,934
4A07243	MILL	PEPPER AV	MERIDIAN	WIDEN MILL FROM PEPPER TO MERIDIAN FROM 2 TO 4 LANES	2030	$2,778
4A04195	MILL CREEK	RIVERSIDE DR	BELLEGRAVE AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$3,423
4A04216	MILLIKEN AV	RIVERSIDE DR	EDISON AV	WIDEN FROM 1 TO 4 LANES EACH DIR	2018	$3,911
4A04215	MILLIKEN AV (HAMNER)	EDISON AV	SCL	WIDEN FROM 1 TO 3 LANES EACH DIR	2018	$1,630
4A01276	MISSION BLVD	LA COUNTY LINE	PIPE LINE	WIDEN MISSION BLVD FROM LA COUNTY LINE TO PIPE LINE FROM 2 TO 6 LANES	2020	$1,721
4A07182	MISSION BLVD	CENTRAL	BENSON	WIDEN MISSION BLVD FROM CENTRAL TO BENSON FROM 4 TO 6 LANES	2020	$2,942
4A07215	MISSION BLVD			CONSTRUCT A BRIDGE ON MISSION BLVD OVER WEST CUCAMONGA CREEK	2018	$1,820
4A07233	MISSION BLVD	RAMONA	FREMONT	WIDEN MISSION BLVD FROM RAMONA TO FREMONT FROM 4 TO 6 LANES	2020	$1,887
4A07317	MISSION BLVD			CONSTRUCT A BRIDGE ON MISSION BLVD OVER CUCAMONGA CREEK	2018	$580
4A07008	MISSION BOULE-VARD	LA COUNTY LINE	BENSON AV	ROADWAY REHABILITATION/SIGNAL MODIFICATIONS	2010	$18,941
4A07312	MOJAVE DR	1000' E/O EL EVADO RD	AT POWER LINE EASEMENT	WIDEN MOJAVE DR FROM 1000' E/O EL EVADO RD TO AT POWER LINE EASEMENT FROM 4 TO 6 LANES	2020	$835
4A07377	MOJAVE DR	JUST W/O COBALT RD	AT POWER LINE EASEMENT	WIDEN MOJAVE DR FROM JUST W/O COBALT RD TO AT POWER LINE EASEMENT FROM 4 TO 6 LANES	2020	$262

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07388	MOJAVE DR	1190' E/O US-395	AT POWER LINE EASEMENT	WIDEN MOJAVE DR FROM 1190' E/ US-395 TO AT POWER LINE EASEMENT FROM 4 TO 6 LANES	2020	$107
4A01165	MOJAVE ST	I-15	MAPLE AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$3,435
4A07207	MONTE VISTA AT PHILLIPS	IN SAN BERNAR-DINO COUNTY		INTERSECTION IMPROVEMENTS	2020	$2,467
4A01183	MONTE VISTA AV	SAN BERNARDINO ST	ARROW HWY	WIDEN FROM 2 TO 3 LANES EACH DIR	2030	$8,047
4A07202	MONTE VISTA AVE	PHILLIPS BLVD	STATE ST	WIDEN MONTE VISTA AVE FROM PHILLIPS BLVD TO STATE ST FROM 2 TO 4 LANES	2020	$3,997
4A01041	MOUNTAIN AV	PHILADELPHIA ST	RIVERSIDE DR	WIDEN FROM 2 TO 3 LANES EACH DIR	2030	$3,564
4A07172	MOUNTAIN AV	CHINO	EDISON	WIDEN MOUNTAIN FROM CHINO TO EDISON FROM 2 TO 4 LANES	2018	$2,667
4A07329	MOUNTAIN AV	BICKMORE	EL PRADO	WIDEN MOUNTAIN AVENUE FROM BICKMORE TO EL PRADO	2020	$599
4A07047	MOUNTAIN AVE	EUCLID	LA COUNTY LINE	WIDEN MOUNTAIN AVE FROM EUCLID AVE TO LA COUNTY LINE FROM 2 TO 4 LANES	2020	$10,603
4A07105	MOUNTAIN AVE	23RD	EUCLID	WIDEN MOUNTAIN AVE FROM 23RD ST TO EUCLID AVE FROM 2 TO 4 LANES	2020	$5,718
4A01146	MT VERNON AV	CANAL ST	NORTH CITY LIMITS	WIDEN FROM 1 TO 2 LANES EACH DIR	2014	$789
4A04071	MT VERNON AV	LA CADENA DR	I-10	WIDEN FROM 2 TO 4 LANES EACH DIR	2020	$4,396
4A07289	MT VERNON AV	BARTON RD	700' N/O MINONA ST	WIDEN MT VERNON AV FROM BARTON RD 700' N/O MINONA ST FROM 2 LANES TO 4 LANES.	2010	$685
4A07264	MT VIEW	THOMPSON PL	ELECTRIC AV	WIDEN MT VIEW AVE FROM THOMPSON PL TO ELECTRIC AVE FROM 2 TO 4 LANES	2030	$2,222
4A07211	MT VIEW AV	I-10	SAN BERNARDINO AV	WIDEN MT VIEW AV FROM I-10 TO SAN BERNARDINO AV FROM 2 TO 4 LANES (WEST SIDE ONLY)	2020	$2,486
4A04115	MULBERRY	VALLEY BL	SAN BERNARDINO AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$2,776
4A04401	MULBERRY	JURUPA AV	SLOVER AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$2,083
4A04413	MULBERRY	SLOVER AV	VALLEY BL	CONSTRUCT GRADE SEPARATION	2020	$36,258
4A07271	MULBERRY AVE	JURUPA	SANTA ANA	MULBERRY AVE FROM JURUPA AVE TO SANTA ANA AVE WIDEN FROM 2 TO 4 LANES	2010	$777

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
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4A07020	NATIONAL TRAILS HIGHWAY	IN SAN BERNAR-DINO COUNTY		SAFETY UPGRADE	2020	$19,737
4A01339	NATIONAL TRAILS HWY	MOJAVE RIVER	I-15	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: OVERLAPS RTIP#SBD88140 FROM AIR EXPWY TO I-15)	2010	$1,244
4A07025	NATIONAL TRAILS HWY	MOJAVE RIVER		WIDEN NATIONAL TRAILS HIGHWAY BRIDGE OVER MOJAVE RIVER (REPLACE EXISTING BRIDGE)	2020	$20,313
4A07239	NATIONAL TRAILS HWY	MOJAVE RIVER	1.6 MI. N/O MOJAVE RIVER	WIDEN NATIONAL TRAILS HIGHWAY FROM MOJAVE RIVER TO 1.6 MI. N/O MOJAVE RIVER - 2 TO 4 LANES	2020	$1,892
4A07071	NAVAJO RD	SR-18	THUNDERBIRD RD	WIDEN NAVAJO RD FROM SR-18 TO THUNDERBIRD RD FROM 2 TO 4 LANES	2018	$7,647
4A07112	NEVADA ST	LUGONIA AVE	PALMETTO	WIDEN NEVADA ST FROM LUGONIA AVE TO PALMETTO FROM 2 TO 4 LANES	2020	$5,551
200411	NIELSON RD	BEEKLEY	MALPASO	PAVE DIRT ROAD, 1 LANE EACH DIR	2007	$491
4A07041	OAK GLEN RD	COLORADO ST	CASA BLANCA AVE	WIDEN OAK GLEN RD FROM COLORADO ST TO CASA BLANCA AVE FROM 2 TO 4 LANES	2030	$17,319
4A07197	OLIVE STREET	0007M W, JACK-SON	E/0003M W RANCHO AVE	WIDEN OLIVE STREET FROM 0007M W, JACKSON E/0003M W, RANCHO AVE FROM 2 TO 4 LANES	2020	$2,554
4A01378	ONAGA TRAIL	KICKAPOO	CAMINO DEL CIELO	NEW ROAD, 1 LANE EACH DIR	2010	$377
4A04218	ONTARIO AVE/ HELLMAN	RIVERSIDE DR	BELLEGRAVE AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$4,236
4A01247	ORANGE ST	N. CITY LIMITS	PIONEER AV	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: RTIP#SBD31718 WIDENS BRIDGE AT SANTA ANA RIVER)	2020	$6,677
4A01248	ORANGE ST	SAN BERNARDINO AV	LUGONIA AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$1,575
4A07054	ORANGE ST	COLTON AV	LUGONIA AV	WIDEN FROM 1 TO 2 LANES EACH DIR - CALTRANS (STATE ROUTE 38)	2020	$10,100
4A01343	OTTAWA ST	MARIPOSA RD	OTTAWA PL	WIDEN OTTAWA ST FROM MARIPOSA RD TO OTTAWA PL FROM 0 TO 4 LANES	2010	$997
4A07360	OTTAWA ST	HESPERIA RD	INDUSTRIAL BLVD	WIDEN OTTAWA ST FROM HESPERIA RD TO INDUSTRIAL BLVD FROM 0 TO 4 LANES	2020	$343
4A07275	PACIFIC ST	COLE ST	PALM AVE	WIDEN FROM 2 TO 4 LANES	2030	$1,539

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
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4A07290	PACIFIC ST	PALM AVE	CHURCH AVE	WIDEN PACIFIC AVE	2030	$1,374
4A07364	PACIFIC ST	ORANGE ST	WEST OF COLE	WIDEN FROM 2 TO 4 LANES	2030	$371
4A01340	PALM AV	SOUTH CITY LIMIT	BASELINE	WIDEN FROM 2 TO 4 LANES	2018	$5,376
4A01389	PALM AV	BASELINE	PACIFIC AV	WIDEN FROM PALM AVE	2020	$2,970
4A07247	PALM AV	CAJON BLVD	I-215	WIDEN PALM AV FROM CAJON BLVD TO I-215 FROM 2 TO 4 LANES	2020	$1,575
4A07323	PALM AV	PACIFIC AVE	ATLANTIC AVE	WIDEN PALM AVE FROM PACIFIC ST TO ATLANTIC AVE FROM 2 LANES TO 4 LANES.	2020	$666
4A07023	PALMDALE RD	US 395	I-15	WIDEN PALMDALE RD FROM US 395 TO I-15 FROM 4 TO 6 LANES. 8.5 LANE MILES	2030	$36,174
4A07154	PALMETTO AVE	CALIFORNIA ST	ALABAMA ST	WIDEN PALMETTO AVE FROM CALIFORNIA ST TO ALABAMA ST FROM 2 TO 4 LANES	2020	$4,219
4A07068	PEPPER	ETIWANDA AV	SR-210	WIDEN PEPPER AVE FROM FOOTHILL BLVD TO SR-210 FROM 3 TO 6 LANES	2035	$21,197
4A07265	PEPPER	RIALTO	FOOTHILL	WIDEN PEPPER AVE FROM RIALTO AVE TO FOOTHILL BLVD FROM 2 TO 4 LANES	2035	$3,185
4A07200	PEPPER AVE	SLOVER	VALLEY	WIDEN PEPPER AV FROM SLOVER TO VALLEY FROM 2 TO 4 LANES	2020	$2,498
4A07198	PERRIS HILL PARK TE	21ST ST	PACIFIC ST	WIDEN PERRIS HILL PARK RD FROM 21ST ST TO PACIFIC ST FROM 2 TO 4 LANES	2030	$4,445
4A01277	PHELAN RD	BALDY MESA RD	HESPERIA W. CITY LIMIT	WIDEN FROM 2 TO 3 LANES EACH DIR	2030	$6,773
4A01278	PHELAN RD	SHEEP CREEK RD	BALDY MESA RD	WIDEN FROM 1 TO 3 LANES EACH DIR	2020	$46,124
4A07191	PHILADELPHIA	EAST END AV	NORTON AVE	WIDEN PHILADELPHIA AV FROM EAST END AV TO NORTON AVE FROM 2 TO 4 LANES	2020	$2,720
4A07269	PHILADELPHIA	RAMONA	MONTE VISTA	WIDEN PHILADELPHIA AV FROM RAMONA TO MONTE VISTA FROM 2 TO 4 LANES	2020	$1,166
4A07293	PHILADELPHIA	LOS ANGELES CRL	EAST END AV	WIDEN PHILADELPHIA AV FROM LOS ANGELES CRL TO EAST END AV FROM 2 TO 4 LANES	2020	$944
4A01042	PHILADELPHIA ST	CENTRAL AV	BENSON AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2018	$1,198
4A01043	PHILADELPHIA ST	LA COUNTY LINE	CENTRAL AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$3,914
4A07138	PHILADELPHIA ST	VINEYARD AV	CUCAMONGA CREEK	WIDEN FROM 1 TO 2 LANES EACH DIR, INCL. BRIDGE OVER CUCAMONGA CREEK	2018	$3,822
4A07266	PHILADELPHIA ST	CAMPUS AV	GROVE AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$995

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07107	PHILLIPS BLVD	YORBA AV	BENSON AV	WIDEN PHILLIPS BLVD FROM YORBA AV TO BENSON AV FROM 2 TO 4 LANES	2020	$5,662
4A07124	PHILLIPS BLVD	ROSWELL AVE	YORBA AVE	WIDEN PHILLIPS BLVD FROM ROSWELL AVE TO YORBA AVE FROM 2 TO 4 LANES	2020	$4,996
4A07252	PHILLIPS BLVD	EAST END AVE	ROSWELL AVE	WIDEN PHILLIPS BLVD FROM EAST END AVE TO ROSWELL AVE FROM 2 TO 4 LANES	2020	$1,388
4A07390	PHILLIPS BLVD	LA COUNTY LINE	EAST END AVE	WIDEN PHILLIPS BLVD FROM LA COUNTY LINE TO EAST END AVE FROM 2 TO 4 LANES	2020	$56
4A07371	PINE			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF PINE AND LOOP ROAD WEST	2015	$198
4A07372	PINE			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF PINE AND LOOP ROAD EAST	2015	$213
4A07373	PINE			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF PINE AND CHINO-CORONA RD	2015	$198
4A07374	PINE			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF PINE AND BON VIEW	2015	$213
4A07375	PINE			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF PINE AND SULTANA	2015	$213
4A04044	PINE AV	SR71	EUCLID AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$40,147
4A04045	PINE AV	EUCLID AV	HELLMAN	WIDEN FROM 1 TO 3 LANES EACH DIR	2020	$8,223
4A07244	PINE AV	KENDALL DR	BELMONT AV	WIDEN PINE AVE FROM KENDALL DR TO BELMONT AVE FROM 2 TO 4 LANES	2030	$2,778
4A07116	PINE AVE	SR-71	CHINO CREEK	WIDEN PINE AVE FROM SR-71 TO CHINO CREEK (NORTH SIDE ONLY)	2010	$3,607
4C01001	PINE AVE (FOUR CORNERS)			NEW ARTERIAL CORRIDOR LINKING PINE AVE, SCHLEISMAN AVE, ARLINGTON AVE (RIV. CO.)	2030	$237,676
4A07059	PIPE LINE AVE	PHILADELPHIA	MISSION BLVD	WIDEN PIPE LINE AV FROM PHILADELPHIA AV TO MISSION BLVD FROM 2 TO 4 LANES	2020	$8,882
4A07216	PIPE LINE AVE	CHINO AV	RIVERSIDE DR	WIDEN PIPE LINE AV FROM CHINO AVE TO RIVERSIDE DR FROM 2 TO 4 LANES	2020	$2,220
4A07279	PIPE LINE AVE	RIVERSIDE	WALNUT	WIDEN PIPE LINE AV FROM RIVERSIDE AV TO WALNUT AV FROM 2 TO 4 LANES	2020	$1,110
4A07303	PIPE LINE AVE	WALNUT	.25 M NORTH	WIDEN PIPE LINE AV FROM WALNUT AV TO .25 M NORTH FROM 2 TO 4 LANES	2020	$833
4A07151	RAMONA	PHILADELPHIA	PHILLIPS BLVD	WIDEN RAMONA AV FROM PHILADELPHIA TO PHILLIPS BLVD FROM 2 TO 4 LANES	2020	$4,330
4A07032	RANCHERIAS RD	RINCON	CORWIN RD	WIDEN RANCHERIAS RD FROM RINCON RD TO CORWIN RD FROM 2 TO 4 LANES	2023	$19,490

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07065	RANCHERO ST	.94M E/O MARI-POSA	ESCONDIDO AVE	WIDEN RANCHERO RD FROM .94M E/O MARIPOSA RD TO ESCONDIDO AVE FROM 2 TO 4 LANES	2020	$8,327
4A07110	RANCHERO ST	ESCONDIDO AVE	HESPERIA CITY LIMITS	WIDEN RANCHERO RD FROM ESCONDIDO AVE TO HESPERIA CITY LIMITS FROM 2 TO 4 LANES	2020	$5,551
4A07122	RANCHERO ST	MARIPOSA RD	EAST .94M	WIDEN RANCHERO RD FROM .94M E/O MARIPOSA RD FROM 2 TO 4 LANES	2018	$4,031
4A07148	RANCHO	COLTON CITY LIMITS	5TH ST	WIDEN RANCHO FROM COLTON CITY LIMITS TO 5TH ST FROM 2 TO 4 LANES	2030	$7,779
4A01362	RANCHO RD	NATIONAL TRAILS HWY	STODDARD WELLS RD	WIDEN RANCHO RD FROM NATIONAL TRAILS HWY TO STODDARD WELLS RD FROM 0 TO 4 LANES.	2010	$1,342
4A04412	RANCHO RD	KOALA RD	CAUGHLIN RD	NEW ROAD, 2 LANES EACH DIR PLUS TURNING LANE	2020	$13,392
4A07160	RANCHO RD	AMARGOSA	NATIONAL TRAILS HWY	WIDEN RANCHO FROM AMARGOSA TO NATIONAL TRAILS HWY FROM 0 TO 4 LANES (INCLUDES WAS CROSSING)	2020	$4,474
4A07257	RANCHO RD	JUST W/O EL EVADO RD	AT POWER LINE EASEMENT	WIDEN RANCHO RD FROM JUST W/O EL EVADO TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	2020	$1,569
4A07282	RANCHO RD	AMETHYST	EL EVADO RD	WIDEN RANCHO RD FROM AMETHYST RD TO EL EVADO RD FROM 0 TO 4 LANES	2020	$1,183
4A07301	RANCHO RD	PACOIMA	AT POWER LINE EASEMENT	WIDEN RANCHO RD FROM PACOIMA TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	2020	$995
4A07325	RANCHO RD	COBALT RD	AMETHYST RD	WIDEN RANCHO RD FROM COBALT RD TO AMETHYST RD FROM 0 TO 4 LANES	2020	$698
4A07351	RANCHO RD	2025' E/O GASLINE RD	AT POWER LINE EASEMENT	WIDEN RANCHO RD FROM 2025' E/O GASLINE RD TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	2020	$523
4A07376	RANCHO RD	JUST W/O VILLAGE DR	AT POWER LINE EASEMENT	WIDEN RANCHO RD FROM JUST W/O VILLAGE DR TO AT POWER LINE EASEMENT FROM 2 TO 4 LANES	2020	$287
4A07225	RANDALL AV	ALDER	MAPLE	RANDALL AV FROM ALDER TO MAPLE WIDEN FROM 2 TO 4 LANES	2018	$1,766
4A07061	RANDALL AVE	CHERRY AV	POPLAR AVE	WIDEN RANDALL AVE FROM CHERRY AV TO POPLAR AV FROM 2 TO 4 LANES	2020	$8,715
4A07222	RANDALL AVE	ALDER	CEDAR	WIDEN RANDALL AVE FROM ALDER AVE TO CEDAR AVE FROM 2 TO 4 LANES	2020	$2,083
4A04077	RECHE CANYON RD	BARTON RD	CITY LIMITS	WIDEN FROM 2 TO 3 LANES EACH DIR	2018	$2,118
4A07204	RECHE CNYN RD	1.2 M S/O BARTON RD	.78M NORTH	WIDEN RECHE CNYN RD FROM 1.2M S/O BARTON RD TO .78M NORTH FROM 2 TO 4 LANES EACH DIR	2020	$3,997

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07313	RECHE CNYN RD	.067M NW/O RIV COUNTY LINE	COLTON CITY LIMITS	WIDEN RECHE CNYN RD FROM .067M N/W RIV COUNTY LINE TO COLTON CITY LIMITS FROM 2 TO 4 LANES EACH DIR	2020	$722
4A01249	REDLANDS BL	WEST CITY LIMITS	COLTON AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2030	$15,113
4A07135	RIALTO	LENA RD	TIPPECANOE	WIDEN RIALTO AV FROM LENA RD TO TIPPECANOE AV FROM 2 TO 4 LANES	2030	$8,334
4A07163	RIALTO	WEST CITY LIMITS	LINDEN AV	WIDEN RIALTO AVE FROM WEST CITY LIMITS TO CACTUS AVE FROM 2 TO 4 LANES	2035	$9,821
4A07178	RIALTO	SIERRA WY	WATERMAN	WIDEN RIALTO AV FROM SIERRA WY TO WATERMAN FROM 2 TO 4 LANES	2030	$5,556
4A07199	RIALTO	RIVERSIDE	EAST CITY LIMITS	WIDEN RIALTO AVE FROM RIVERSIDE AVE TO EAST CITY LIMITS FROM 2 TO 4 LANES	2035	$6,454
4A07128	RIDGE CREST RD	PAH-UTE RD	CHINQUAPIN DR	WIDEN RIDGE CREST RD FROM PAH-UTE RD TO CHINQUAPIN RD FROM 2 TO 4 LANES	2020	$4,940
4A07237	RIVERSIDE	LOCUST	CEDAR	WIDEN RIVERSIDE AVE FROM LOCUST AVE TO CEDAR AVE FROM 3 TO 4 LANES	2035	$4,501
4A07341	RIVERSIDE			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF RIVERSIDE AND ALDER	2007	$325
4A01079	RIVERSIDE AV	RIVERSIDE COUNTY LINE	NORTH CITY LIMIT	WIDEN FROM 2 TO 3 LANES EACH DIR	2030	$3,624
4A01257	RIVERSIDE AV	CACTUS AV	CASMALIA ST	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$2,708
4A01258	RIVERSIDE AV	SOUTH CITY LIMIT	SLOVER AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2030	$7,672
4A01259	RIVERSIDE AV	VALLEY BL	N/O SLOVER AV	WIDEN FROM 2 TO 4 LANES EACH DIR (NOTE: OVERLAPS RTIP#SBD31808)	2010	$1,998
4A07342	RIVERSIDE AV			CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF RIVERSIDE AND LINDEN	2035	$1,380
4A07343	RIVERSIDE AV			CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF RIVERSIDE AND LOCUST	2035	$1,380
4A01046	RIVERSIDE DR	BENSON AV	MAGNOLIA AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2020	$1,474
4A01047	RIVERSIDE DR	FERN AV	EUCLID AV	WIDEN FROM 1 TO 3 LANES EACH DIR	2020	$1,342
4A01048	RIVERSIDE DR	MOUNTAIN AV	MAGNOLIA AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2020	$805
4A01049	RIVERSIDE DR	PIPELINE	FERN AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2020	$8,248
4A01050	RIVERSIDE DR	WEST CITY LIMITS	BENSON AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2020	$3,741
4A04219	RIVERSIDE DR	EUCLID AV	MILLIKEN BL	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$13,362

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07267	RIVERSIDE DR			CONSTRUCT A BRIDGE RIVERSIDE DR OVER CUCAMONGA CREEK	2030	$1,316
4A07242	RIVERSIDE/MERRIL/ BLOOMINGTON			INTERSECTION IMPROVEMENTS AT RIVERSIDE AVE/MERRIL AVE/BLOOMINGTON AVE	2035	$4,246
4A07173	RIVERSIDE/VALLEY			INTERSECTION IMPROVEMENTS AT RIVERSIDE AVE AND VALLEY BLVD	2035	$8,492
4A01168	ROCK SPRINGS RD	ARROWHEAD LAKE RD	E CITY LIMITS	WIDEN FROM 1 TO 2 LANES EACH DIR	2012	$3,384
4A07082	ROCK SPRINGS RD	MOJAVE RIVER CL	KIOWA RD	WIDEN ROCK SPRINGS RD FROM MOJAVE RIVER CRL TO KIOWA RD FROM 2 TO 4 LANES	2020	$6,914
4A07123	ROCK SPRINGS RD	GLENDALE AVE	MOJAVE RIVER CL	WIDEN ROCK SPRINGS RD FROM GLENDALE AVE TO MOJAVE RIVER CRL FROM 2 TO 4 LANES	2020	$5,196
4A07058	ROUNDUP WY	KIOWA	CENTRAL	WIDEN ROUNDUP WY FROM KIOWA RD TO CENTRAL FROM 2 TO 4 LANES	2020	$8,882
4A07316	SAN ANTONIO AVE	23RD	24TH	WIDEN SAN ANTONIO AVE FROM 23RD TO 24TH FROM 2 TO 4 LANES	2020	$722
4A07357	SAN ANTONIO CRESCENT E	24TH	SAN ANTONIO CRES-CENT WEST	WIDEN SAN ANTONION CRESCENT EAST FROM 24TH ST TO SAN ANTONIO CRESCENT WEST	2020	$333
4A07101	SAN BERNARDINO	WEST CITY LIMITS	EAST CITY LIMITS	WIDEN SAN BERNARDINO FROM WEST CITY LIMITS TO EAST CITY LIMITS FROM 2 TO 4 LANES	2035	$15,218
4A01080	SAN BERNARDINO AV	PEPPER AV	MERIDIAN AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2010	$577
4A01250	SAN BERNARDINO AV	CHURCH ST	WABASH AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$4,677
4A01252	SAN BERNARDINO AV	ROUTE 30	ORANGE ST	WIDEN FROM 1 TO 2 LANES EACH DIR	2012	$4,370
4A01281	SAN BERNARDINO AV	ALABAMA ST	CALIFORNIA ST	WIDEN FROM 1 TO 2 LANES EACH DIR	2030	$10,753
4A07240	SAN BERNARDINO AV	WABASH AVE	OPAL AVE	WIDEN SAN BERNARDINO AV FROM WABASH AV TO OPAL AV FROM 2 TO 4 LANES	2020	$1,665
4A07033	SAN BERNARDINO AVE	ALDER AVE	LAUREL AVE	WIDEN SAN BERNARDINO AVE FROM ALDER AVE TO LAUREL AVE FROM 2 TO 4 LANES	2020	$14,821

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07072	SAN BERNARDINO AVE	CHERRY AVE	FONTANA CITY LIMITS AVENUE	WIDEN SAN BERNARDINO AVE FROM CHERRY AVE TO FONTANA CITY LIMITS FROM 2 TO 4 LANES	2020	$7,661
4A07079	SAN BERNARDINO AVE	LAUREL AVE	RIALTO CITY LIMITS	WIDEN SAN BERNARDINO AVE FROM LAUREL AVE TO RIALTO CITY LIMITS FROM 2 TO 4 LANES	2020	$7,272
4A07109	SAN BERNARDINO AVE	ETIWANDA AVE	CHERRY AVE	WIDEN SAN BERNARDINO AVE FROM ETIWANDA AVE TO CHERRY AVE FROM 5 TO 6 LANES	2020	$5,551
4A07147	SAN BERNARDINO AVE	ALABAMA ST	REDLANDS CRL	WIDEN SAN BERNARDINO AVE FROM ALABAMA ST TO REDLANDS CRL FROM 2 TO 6 LANES	2020	$4,441
4A01184	SAN BERNARDINO ST	LA COUNTY LINE	BENSON AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2030	$9,723
4A07084	SAN SEVAINE	BASELINE	SUMMIT	SAN SEVAINE RD FROM BASELINE AVE TO SUMMIT AVE WIDEN FROM 2 TO 4 LANES	2018	$5,601
4A01254	SAN TIMOTEO CYN RD	RR CROSSING	LIVE OAK CYN RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2030	$15,412
4A07132	SANTA ANA AVE	CEDAR AVE	CACTUS AVE	WIDEN SANTA ANA AVE FROM CEDAR AVE TO CACTUS AVE FROM 2 TO 4 LANES	2020	$4,885
4A07153	SANTA ANA AVE	TAMARIND	LOCUST	WIDEN SANTA ANA AVE FROM TAMARIND TO LOCUST AVE FROM 2 TO 4 LANES	2020	$4,219
4A07158	SANTA ANA AVE	MULBERRY AVE	REDWOOD AVE	WIDEN SANTA ANA AV FROM MULLBERRY AVE TO REDWOOD AVE FROM 2 TO 4 LANES	2020	$4,163
4A07159	SANTA ANA AVE	LOCUST	CEDAR	WIDEN SANTA ANA AVE FROM LOCUST AVE TO CEDAR AVE FROM 2 TO 4 LANES	2020	$4,163
4A01379	SANTA FE TRAIL	APACHE	ACOMA	NEW ROAD, 1 LANE EACH DIR	2010	$377
4A01051	SCHAEFER AV	BENSON AV	EUCLID AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2012	$3,490
4A04220	SCHAEFER AV	EUCLID AV	EDISON AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$30,961
4A01354	SENECA RD	US-395	AMETHYST RD	NEW ROAD, 2 LANES EACH DIR	2020	$1,775
4A07113	SENECA RD	EMERALD RD	AMETHYST RD	WIDEN SENECA RD FROM EMERALD RD TO AMETHYST RD FROM 2 TO 4 LANES	2020	$5,551
4A07350	SENECA RD	2340' W/O EL EVADO RD	AT POWER LINE EASEMENT	WIDEN SENECA RD FROM 2340' W/O EL EVADO RD TO AT POWER LINE EASEMENT FROM 3 TO 4 LANES	2020	$533

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07362	SENECA RD	0.4 M E/O HESPE-RIA RD	ROAD B	WIDEN SENECA RD FROM .4 M E/O HESPERIA RD TO ROAD B FROM 0 TO 4 LANES	2020	$320
4A07365	SENECA RD	2360' E/O US-395	AT POWER LINE EASEMENT	WIDEN SENECA RD FROM 2360' E/O US-395 TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	2020	$307
4A07378	SENECA RD	HESPERIA RD	.2 M E/O HESPERIA RD	WIDEN SENECA RD FROM HESPERIA RD TO 0.2 M E/O HESPERIA RD FROM 0 TO 4 LANES	2020	$262
4A07384	SENECA RD	650' W/O EMER-ALD RD	AT POWER LINE EASEMENT	WIDEN SENECA RD FROM 650' W/O EMERALD RD TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	2020	$155
4A04420	SH 247	ABERDEEN	LINN	WIDEN WITHIN ROW TO ACCOMMODATE PASSING LANES	2008	$9,752
4A01283	SHEEP CREEK RD	PHELAN RD	SR-138	WIDEN FROM 1 TO 2 LANES EACH DIR	2010	$3,530
4A01284A	SIERRA AV	I-15	LYTLE CREEK RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$1,117
4A04122	SIERRA AV	SAN BERNARDINO AV	FOOTHILL BLVD	WIDEN FROM 2 TO 3 LANES EACH DIR	2018	$32,066
4A04123	SIERRA AV	SLOVER AV	VALLEY BL	WIDEN FROM 3 TO 4 LANES EACH DIR	2018	$1,494
4A04125	SIERRA AV	SUMMIT AV	I-15	WIDEN FROM 1 TO 3 LANES EACH DIR	2014	$8,846
4A04126	SIERRA AV	VALLEY BL	SAN BERNARDINO AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2014	$4,423
4A01284B	SIERRA AVE	I-15	LYTLE CREEK	WIDEN SIERRA AVE FROM I-15 TO LYTLE CREED RD FROM 3 TO 4 LANES	2020	$611
4A04127	SIERRA LAKES PARKWAY	BEECH	CITRUS	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$9,162
4A07034	SIERRA LAKES PKWY	CHERRY	ALMERIA	SIERRA LAKES PKWY FROM CHERRY AVE TO ALMERIA AVE WIDEN FROM 2 TO 4 LANES	2018	$12,555
4A07026	SITTING BULL RD	APPLE VALLEY RD	NAVAJO RD	WIDEN SITTING BULL RD FROM APPLE VALLEY RD TO NAVAJO RD FROM 2 TO 4 LANES	2023	$22,274
4A07260	SIXTH ST			CONSTRUCT A BRIDGE ON SIXTH ST OVER CUCAMONGA CREEK	2030	$1,426
4A01132	SLOVER AV	ETIWANDA AV	MULBERRY AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2014	$1,946
4A01260	SLOVER AV	CACTUS AV	RIVERSIDE AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$2,507
4A01285	SLOVER AV	ALDER AV	CACTUS AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$8,221
4A07259	SLOVER AV	TAMARIND	E. CITY LIMITS	SLOVER AV FROM TAMARIND AV TO E. CITY LIMITS WIDEN FROM 4 TO 6 LANES	2018	$1,177

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07075	SMOKETREE RD	TOPAZ RD	AMARGOSA RD	WIDEN SMOKETREE RD FROM TOPAZ RD TO AMARGOSA RD FROM 0 TO 4 LANES (INCLUDES WASH CROSSING)	2020	$8,430
4A07056	SO. HIGHLAND AV	CHERRY	CITRUS	SO. HIGHLAND AVE FROM CHERRY AVE TO CITRUS AVE WIDEN FROM 2 TO 4 LANES	2018	$7,468
4A07103	SO. HIGHLAND AV	BASELINE	CHERRY	SO. HIGHLAND FROM BASELINE RD TO CHERRY AV WIDEN FROM 0 LANES TO 4 LANES.	2020	$6,043
4A07166	SO. HIGHLAND AV	SIERRA	PALMETTO	SO. HIGHLAND AVE FROM SIERRA AVE TO PALMETTO AVE WIDEN FROM 2 TO 4 LANES	2018	$2,943
4A07043	SPRING VALLEY PKWY	HUERTA RD	DRIFTWOOD DR	WIDEN SPRING VALLEY PKWY FROM HUERTA RD TO DRIFTWOOD DR FROM 2 TO 4 LANES	2020	$12,212
4A07001	SR 62	YUCCA TRAIL	ACOMA TRAIL	NEW ROAD, 3 LANES EACH DIR	2012	$84,293
4A07100	SR 62	SAGE	AIRWAY	MEDIANS WITHIN SR 62 RIGHT OF WAY	2007	TBD
4A07115	SR 62	LA HONDA WAY	DUMOSA AVENUE	SIDEWALKS, MEDIANS, UTILITY UNDERGROUNDING	2008	$3,406
4A07306	SR 62			CURB, GUTTER, AND SIDEWALK WITHIN R-O-W	2007	$500
4A07031	STATE ST	FOOTHILL	I-215	WIDEN STATE ST FROM FOOTHILL TO I-210 FROM 2 TO 4 LANES	2020	$16,575
4A07049	STATE ST	HIGHLAND AVE	SR-30	WIDEN STATE ST FROM HIGHLAND AVE TO SR-30 FROM 2 TO 4 LANES	2018	$7,718
4A07050	STATE STREET	IN SAN BERNAR-DINO COUNTY		WIDEN TO ULTIMATE	2020	$9,869
4A07078	STERLING AVE	S.CITY LIMIT	PACIFIC AVE	WIDEN STERLING AVE FROM S.CITY LIMIT TO PACIFIC AVE FROM 2 TO 4 LANES	2020	$7,700
4A07359	STODDARD WELLS	DANTE ST	I-15	WIDEN STODDARD WELLS FROM DANTE ST TO OSBORNE RD, 0.56 MI. S/O I-15, FROM 2 TO 4 LANES	2020	$348
4A07171	STODDARD WELLS RD	LOS PADRES	I-15	WIDEN STODDARD WELLS RD FROM LOS PADRES RD TO I-15 FROM 2 TO 4 LANES	2020	$3,331
4A07167	SUMMIT AV	CHERRY AV	SAN SEVAINE	SUMMIT AV FROM CHERRY AV TO SAN SEVAINE WIDEN FROM 2 LANES TO 4 LANES.	2018	$2,801
4A04414	SUMMIT VALLEY RD	SR-138	HESPERIA CITY LIMIT	PAVE DIRT ROAD, 1 LANE EACH DIR	2008	$1,540
4A07053	SUMMIT VALLEY RD	1.88M N/O SH-138	N/O SH-138 2.18M	WIDEN SUMMIT VALLEY RD FROM 1.88M N, SR-138 N 2.18M (HSP CL)	2018	$7,478
4A07095	SUMMIT VALLEY RD	4.31M N/O SH-138	N/O SH-138 1.20M	WIDEN SUMMIT VALLEY RD FROM 4.31M N, SR-138 (HSP CL) N 1.20M (HSP CL)	2020	$6,561

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07097	SUMMIT VALLEY RD	MARIPOSA	E/O MARIPOSA RD .94M	WIDEN SUMMIT VALLEY RD FROM SR-138 NO188M (E,PVMT) FROM 2 TO 4 LANES	2035	$15,965
4A07117	SUMMIT VALLEY RD	4.31M N/O SH-138	N/O SH-138 1.20M	WIDEN SUMMIT VALLEY RD FROM 4.31M N, SR-138 (HSP CL) N 1.20M (HSP CL)	2018	$4,116
4A07013	SUNBURST AVENUE	IN SAN BERNAR-DINO COUNTY		WIDEN EXISTING TRAFFIC LANES: ADJUST VERTICAL PROFILE SAFETY	2020	$24,672
4A01380	SUNNYSLOPE DRIVE	MOHAWK	PIONEERTOWN RD	NEW ROAD, 1 LANE EACH DIR	2010	$239
4A01381	SUNNYSLOPE DRIVE	PIONEERTOWN RD	CAMINO DEL CIELO	NEW ROAD, 1 LANE EACH DIR	2010	$602
4A07344	SYCAMORE			CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF SYCAMORE AND RANDALL	2035	$1,380
4A07345	SYCAMORE			CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF SYCAMORE AND MERRILL	2035	$1,380
4A01018	THUNDERBIRD RD	RANCHERIAS RD	CENTRAL RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$11,470
4A07152	TIPPECANOE	MILL ST	HARRIMAN	WIDEN TIPPECANOE FROM MILL ST TO HARRIMAN FROM 4 TO 6 LANES	2012	$2,995
4A07005	TIPPECANOE AVE	SAN BERNARDINO AVE	SANTA ANA RIVER	WIDEN BRIDGE FROM 4 TO 6 LANES	2020	$37,294
4A07142	TIPPECANOE AVE	3RD ST	9TH ST	WIDEN TIPPECANOE AVE FROM 3RD ST TO 9TH ST FROM 2 TO 4 LANES	2020	$4,787
4C01002	TONNER CANYON (FOUR CORNERS)	GRAND	SR-57	NEW ARTERIAL CORRIDOR CONNECTING CHINO HILLS WITH SR-57 (LA/OR CO.) WITH 2 LANES EACH DIR, ACCESS TO SR-57 AT BREA CYN RD OR TONNER CYN RD, CON-NECTION TO GRAND AVE AND EUCALYPTUS AVE, NO CONNECTION TO VALENCIA AVE	2030	$602,016
4A01361	TOPAZ RD	SENECA RD	PALMDALE RD	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$2,445
4A07164	TOPAZ RD	HOPLAND	LUNA RD	WIDEN TOPAZ RD FROM HOPLAND ST TO LUNA ROAD FROM 0 TO 4 LANES	2020	$4,144
4A07283	TOPAZ RD	EUCALYPTUS	SMOKETREE RD	WIDEN TOPAZ RD FROM EUCALYPTUS RD TO SMOKETREE RD FROM 0 TO 4 LANES	2020	$1,183
4A07379	TOPAZ RD	360' N/O SENECA RD	AT POWER LINE EASEMENT	WIDEN TOPAZ RD FROM 360' N/O SENECA RD TO AT POWERLINE EASEMENT FROM 0 TO 4 LANES	2020	$256
4A07228	UNIVERSITY PKWY	HALLMARK PKWY	BNSF GRADE SEPA-RATION	WIDEN UNIVERSITY PKWY FROM HALLMARK PKWY TO BNSF GRADE SEPARATION FROM 2 TO 4 LANES	2012	$1,371

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07004	US 395	AQUEDUCT	HOLLY ST.	WIDEN US 395 FROM AQUEDUCT TO HOLLY ST. FROM 2 TO 6 LANES OR 4 TO 6 LANES, VARIOUS SEGMENTS. 22.25 LANE MILES	2020	$46,282
4A07141	US 395	AQUEDUCT		WIDEN US 395 AT AQUEDUCT FROM 4 TO 6 LANES	2020	$5,205
4A07392	US-395	CALLEJA RD	DESERT FLOWER RD	WIDEN US-395 FROM CALLEJA TO DESERT FLOWER RD FROM 2 TO 4 LANES	2018	$3,302
4A07039	VALLEY	CHERRY	ALDER	VALLEY BLVD FROM CHERRY TO ALDER WIDEN FROM 2 TO 4 LANES	2018	$10,456
4A07346	VALLEY			CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF VALLEY AND LILAC	2035	$1,380
4A07347	VALLEY			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF VALLEY AND CACTUS	2035	$1,380
4A01082	VALLEY BLVD	SYCAMORE AV	MT. VERNON AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2020	$7,659
4A01261	VALLEY BLVD	SPRUCE AV	SYCAMORE AV	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$2,807
4A07140	VALLEY BLVD	JUNIPER	TAMARIND	VALLEY BLVD FROM JUNIPER AVE TO TAMARIND AVE WIDEN FROM 4 TO 6 LANES	2018	$3,734
4A07201	VALLEY BLVD	ETIWANDA AVE	COMMERCE DR	WIDEN VALLEY BLVD FROM ETIWANDA AVE TO COMMERCE DR FROM 5 TO 6 LANES	2020	$2,498
4A07218	VALLEY BLVD	COMMERCE DR	ALMOND AV	WIDEN VALLEY BLVD FROM COMMERCE DR TO ALMOND AVE FROM 5 TO 6 LANES	2020	$2,165
4A07272	VALLEY BLVD	ALMOND	CHERRY	VALLEY BLVD FROM ALMOND AVE TO CHERRY AVE WIDEN FROM 4 TO 6 LANES	2018	$934
4A07273	VALLEY BLVD	HEMLOCK	BEECH	VALLEY BLVD FROM HEMLOCK AVE TO BEECH AVE WIDEN FROM 4 TO 6 LANES	2018	$934
4A07274	VALLEY BLVD	POPLAR	CATAWBA	VALLEY BLVD FROM POPLAR AVE TO CATAWBA AVE WIDEN FROM 4 TO 6 LANES	2018	$934
4A07284	VALLEY BLVD	CHERRY AVE	HEMLOCK	WIDEN VALLEY BLVD FROM CHERRY AVE TO HEMLOCK AVE FROM 5 TO 6 LANES	2020	$1,041
4A01341	VICTORIA AV	3RD ST	6TH ST	WIDEN VICTORIA AVE	2008	$610
4A01222	VINEYARD AV	4TH ST	I-10	WIDEN FROM 2 TO 3 LANES EACH DIR	2018	$1,263
4A04223	VINEYARD AV	RIVERSIDE DR	EDISON AV	WIDEN FROM 1 TO 3 LANES EACH DIR	2018	$5,704
4A07196	W. VAN LEUVEN ST.	EVANS ST.	ORANGE GROVE ST.	NEW ROAD, 1 LANES EACH DIR	2012	$1,828
4A07029	WAALEW RD	CORWIN RD	CENTRAL	WIDEN WAALEW RD FROM CORWIN RD TO CENTRAL RD FROM 2 TO 4 LANES	2018	$15,931
4A07235	WABASH AV	.30 M S/O SEV-ENTH ST	.13 M N/O SEVENTH ST	WIDEN WABASH AV FROM .30 M S/O SEVENTH ST TO .13M N/O SEVENTH ST FROM 2 TO 4 LANES	2020	$1,832
4A07253	WABASH AV	COLTON AV	SR 38	WIDEN WABASH AV FROM COLTON AV TO SR 38 FROM 2 TO 4 LANES	2020	$1,388

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07254	WABASH AV	SR 38	SAN BERNARDINO AVE	WIDEN WABASH AV FROM SR 38 TO SAN BERNARDINO AVE FROM 2 TO 4 LANES	2020	$1,388
4A07321	WABASH AV	6TH AV	5TH AV	WIDEN WABASH AV FROM 6TH AV TO 5TH AV FROM 2 TO 4 LANES	2020	$666
4A07381	WABASH AV	REDLANDS CITY LIMITS	I-10	WIDEN WABASH AV FROM REDLANDS CITY LIMITS TO I-10 FROM 2 TO 4 LANES	2020	$167
4A04224	WALKER AV	RIVERSIDE DR	SCL	WIDEN FROM 1 TO 2 LANES EACH DIR	2018	$4,236
4A07077	WALNUT	I-15	SAN SERVAINE	WALNUT AVE FROM I-15 TO SAN SERVAINE FROM 2 TO 4 LANES	2018	$6,277
4A04137	WALNUT AV	ALMERIA	SIERRA	WIDEN FROM 1 TO 2 LANES EACH DIR	2014	$7,431
4A07354	WALNUT AV	.12 M W/O NOR-TON AVE	.03 M E/O NORTON AV	WIDEN WALNUT AV FROM .12 M W/O NORTON TO .03 M E/O NORTON FROM 2 TO 4 LANES	2020	$389
4A07363	WALNUT AV	.10 M W/ O RO-SWELL AVE	ROSWELL AV	WIDEN WALNUT AV FROM .10 M W/O ROSWELL AV TO ROSWELL AV FROM 2 TO 4 LANES	2020	$278
4A07106	WASHINGTON ST			WASHINGTON ST EXTENSION TO LA CADENA DR	2020	$6,581
4A07194	WASHINGTON ST	BARTON RD	I-215	WIDEN WASHINGTON FROM BARTON RD TO I-215 FROM 4 TO 6 LANES	2018	$2,372
4A01292	WATERMAN AV	5TH ST	BASELINE AV	WIDEN FROM 2 TO 3 LANES EACH DIR	2030	$20,002
4A07003	WATERMAN AV/I-10	HOSPITALITY LANE	REDLANDS BLVD	REPLACE I-10 BRIDGE TO WIDEN WATERMAN AVE FROM 4 TO 6 LANES	2030	$86,814
4A01376A	WILDWOOD CAN-YON RD	CALIMESA BL	COLORADO ST	WIDEN FROM 1 TO 2 LANES EACH DIR	2010	$1,507
4A01376B	WILDWOOD CAN-YON RD	COLORADO ST	CANYON DR	WIDEN FROM 1 TO 2 LANES EACH DIR	2020	$8,262
4A07022	WILDWOOD CYN RD	OUTER I-10	CALIMESA BLVD NEW RD	WIDEN WILDWOOD CYN RD FROMOUTER I-10 ST TO CALIMESA BLVD FROM 2 LANES TO 4 LANES.	2018	$15,877
4A07324	WILLOW			CONSTRUCT TRAFFIC SIGNAL AT THE INTERSECTION OF WILLOW AND BLOOMINGTON	2007	$385
4A07051	WILSON RANCH ROAD	GOSS ROAD	PALMDALE	PAVE DIRT ROAD, 1 LANE EACH DIR	2020	$9,869
4A07021	WINTERS ROAD	IN SAN BERNAR-DINO COUNTY		PAVE ALTERNATIVE ROUTE TO TNP MARINE BASE	2020	$19,737

SAN BERNARDINO COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
4A07089	YATES RD	CHINQUAPIN DR	FORTUNA	WIDEN YATES RD FROM CHINQUAPIN DR TO FORTUNA RD FROM 2 TO 4 LANES	2020	$6,828
4A04418	YUCAIPA BL	I-10	BRYANT ST	WIDEN FROM 2 TO 3 LANES EACH DIR	2020	$27,007

* For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

SAN BERNARDINO COUNTY GRADE SEPARATION PROJECTS

In the process of developing the 2008 RTP, the San Bernardino Associated Governments provided to SCAG a list of grade separation improvement projects planned for implementation in San Bernardino County within the timeframe of the RTP. The projects in this list are included in the 2008 RTP subject to available funding as identified in the San Bernardino County RTP Projects list.

SAN BERNARDINO COUNTY GRADE SEPARATION PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY	PROJECT COST ($1,000'S)
4G0148	ACACIA AV	IN RIALTO	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	TBD	$224
4G0140	ALDER AV	IN FONTANA	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SPOT WIDENING (HIGH OPTION)	2020	$2,293
4G0166	ALESSANDRO RD	IN REDLANDS	(YUMA)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2025	$56,122
4G0116	ARCHIBALD AV	IN ONTARIO	(LOS ANGELES)	ROADWAY WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2025	$41,942
4G0164	BEAUMONT AV	IN LOMA LINDA	(YUMA)	SAFETY UPGRADE (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2020	$25,887
4G0134	BEECH AV	IN SAN BERNARDINO COUNTY	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), ROADWAY WIDENING (HIGH OPTION)	2020	$3,334
4G0119	BENSON AVE	IN UPLAND	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SPOT WIDENING (HIGH OPTION)	TBD	$1,983
4G0113	BON VIEW AV	IN ONTARIO	(LOS ANGELES)	SAFETY UPGRADE (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2025	$33,475
4G0143	CACTUS AV	IN RIALTO	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	TBD	$1,545
4G0104/ 4G0112	CAMPUS AV	IN ONTARIO	"(ALHAMBRA)/ (LOS ANGELES)"	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2025	$41,844

SAN BERNARDINO COUNTY GRADE SEPARATION PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY	PROJECT COST ($1,000'S)
4G0124	CAMPUS AV	IN UPLAND	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	TBD	$357
4G0142	CEDAR AV	IN RIALTO	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	TBD	$24,484
4G0118	CENTRAL AV	IN MONTCLAIR	(SAN GABRIEL)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	TBD	$27,488
4G07421	CENTRAL AV	IN MONTCLAIR ON THE ALHAMBRA AND LOS ANGELES LINES	HOLT BOULEVARD TO MISSION BOU-LEVARD	WIDEN CENTRAL AV GRADE SEPARATION IN MONTCLAIR ON THE ALHAMBRA AND LOS ANGELES LINES	2025	$12,070
4G0135	CITRUS AV	IN FONTANA	(SAN GABRIEL)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2020	$38,675
4G0156	E ST	IN COLTON	(SAN BERNADINO)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	2015	$348
4G0149	EUCALYPTUS AV	IN RIALTO/SAN BER-NARDINO CITY	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	2030	$428
4G0429	EUCALYPTUS ST	IN HESPERIA	(BNSF)	GRADE SEPARATION	2025	$44,705
4G0122	EUCLID AV	IN UPLAND	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	TBD	$1,821
4G0161	GLEN HELEN PKWY	IN SAN BERNARDINO COUNTY	(CAJON)	ROADWAY WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2020	$29,928
4G0157	H ST	IN COLTON	(SAN BERNADINO)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	2015	$348
4G0169	HINKLEY	IN SAN BERNARDINO COUNTY	(CAJON)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2020	$24,563
4G0168	INDIAN TRAIL	IN SAN BERNARDINO COUNTY	(CAJON)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	2020	$243
4G0173	JOHNSON RD	IN SAN BERNARDINO COUNTY	(CUT-OFF)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	2020	$243
4G0136	JUNIPER AV	IN FONTANA	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SPOT WIDENING (HIGH OPTION)	2020	$1,887
4G0154	LAUREL ST	IN COLTON	(SAN BERNADINO)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2015	$24,506
4G0144	LILAC AV	IN RIALTO	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	TBD	$224
4G0141	LOCUST AV	IN SAN BERNARDINO COUNTY	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SPOT WIDENING (HIGH OPTION)	2020	$1,704

SAN BERNARDINO COUNTY GRADE SEPARATION PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY	PROJECT COST ($1,000'S)
4G04027	MAIN ST	IN GRAND TERRACE	(SAN BERNARDINO)	GRADE SEPARATION AT MAIN ST IN GRAND TERRACE ON THE SAN BERNAR-DINO LINE	2014	$24,696
4G0138	MANGO AV	IN FONTANA	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	2020	$1,412
4G0106	MILLIKEN AV	IN ONTARIO	(ALHAMBRA)	SAFETY UPGRADE (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2010	$44,376
4G0117	MILLIKEN AV	IN ONTARIO	(LOS ANGELES)	SAFETY UPGRADE (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2025	$37,150
4G0102	MONTE VISTA AV	IN MONTCLAIR	(ALHAMBRA)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2010	$31,278
4G0108	MONTE VISTA AV	IN MONTCLAIR	(LOS ANGELES)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2010	$31,278
4G07422	MOUNT VERNON	.2 MILES WEST OF RANCHO AVE.	.9 MILES EAST OF LA CADENA DR	CONSTRUCT RAILROAD GRADE SEPARATION FROM SOUTH OF I-10 IN CITY OF COLTON	2020	$6,368
4G0120	MOUNTAIN AV	IN UPLAND	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	TBD	$1,821
4G0155	OLIVE ST	IN COLTON	(SAN BERNADINO)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2010	$19,463
4G07420	ORO GRANDE	IN SAN BERNARDINO COUNTY		REPLACE GRADE SEPARATION	2020	$49,343
4G0160	PALM AV	IN SAN BERNARDINO CITY	(CAJON)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2020	$37,294
4G0139	PALMETTO AV	IN FONTANA	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	2015	$315
4G0150	PEPPER AV	IN SAN BERNARDINO CITY	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SPOT WIDENING (HIGH OPTION)	2030	$3,585
4G0172	PHELAN	IN SAN BERNARDINO COUNTY	(CUT-OFF)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2020	$24,563
4G0107	RAMONA AV	IN MONTCLAIR	(LOS ANGELES)	ROADWAY WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2008	$16,291
4G0152	RANCHO AV	IN SAN BERNARDINO CITY	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	2020	$407
4G0151	RIALTO AV	IN SAN BERNARDINO CITY	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), ROADWAY WIDENING (HIGH OPTION)	2030	$6,118
4G0153	RIALTO AV	IN SAN BERNARDINO CITY	(SAN BERNADINO)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2030	$59,381

SAN BERNARDINO COUNTY GRADE SEPARATION PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY	PROJECT COST ($1,000'S)
4G0146	RIVERSIDE AV	IN RIALTO	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	TBD	$1,103
4G07423	RIVERSIDE AVE	IN RIALTO	ATSF	GRADE SEPARATION OF ATSF AT RIVERSIDE AVE AND ATSF METROLINK TRACKS	TBD	$37,789
4G0103/ 4G0109	SAN ANTONIO AV	IN ONTARIO	(ALHAMBRA) (LOS ANGELES)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2025	$41,844
4G0121	SAN ANTONIO AV	IN UPLAND	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	TBD	$662
4G0165	SAN TIMOTEO RD	IN REDLANDS	(YUMA)	SPOT WIDENING (LOW OPTION), SPOT WIDENING (HIGH OPTION)	TBD	$1,965
4G0123	SECOND AV	IN UPLAND	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	TBD	$1,276
4G0137	SIERRA AV	IN FONTANA	(SAN GABRIEL)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2020	$27,756
4G0111	SULTANA AV	IN ONTARIO	(LOS ANGELES)	SAFETY UPGRADE (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2025	$33,475
4G0147	SYCAMORE AV	IN RIALTO	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	TBD	$224
4G07424	US-395	0.9 MI S/O SR-58	0.1 MI N/O SR-58	RR GRADE SEPARATION	2015	$56,731
4G0158	VALLEY BL	IN COLTON	(SAN BERNADINO)	ROADWAY WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2020	$41,682
4G0110	VINE AV	IN ONTARIO	(LOS ANGELES)	SAFETY UPGRADE (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2025	$33,475
4G0105	VINEYARD AV	IN ONTARIO	(ALHAMBRA)	SAFETY UPGRADE (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2025	$35,551
4G0167	VISTA	IN SAN BERNARDINO COUNTY	(CAJON)	SPOT WIDENING (LOW OPTION), GRADE SEPARATION (HIGH OPTION)	2020	$24,563
4G0145	WILLOW AV	IN RIALTO	(SAN GABRIEL)	SAFETY UPGRADE (LOW OPTION), SAFETY UPGRADE (HIGH OPTION)	TBD	$224

SAN BERNARDINO COUNTY ITS PROJECTS

In the process of developing the 2008 RTP, the San Bernardino Associated Governments provided to SCAG a list of ITS improvement projects planned for implementation in San Bernardino County within the timeframe of the RTP. The projects in this list are included in the 2008 RTP subject to available funding as identified in the San Bernardino County RTP Projects list.

SAN BERNARDINO COUNTY ITS PROJECTS				
RTP ID	SPONSOR	PROJECT	PROJECT BENEFITS	BUDGET ($1,000,000'S)
4ITS07012	CALTRANS DISTRICT 7	INTERCAD	INTEROPERABLE COMPUTER AIDED DISPATCH OF SERVICES	$2.20
4ITS07001	CALTRANS DISTRICT 8	RAMP METERING	IMPROVED TRAFFIC FLOW AND SAFETY.	$214.95
4ITS07002	CALTRANS DISTRICT 8	FREEWAY OPS. COMMUNICATIONS INFRASTRUCTURE	COMMUNICATIONS LINKS FOR FREEWAY OPS.	$104.53
4ITS07003	CALTRANS DISTRICT 8	CLOSED CIRCUIT TV	INCIDENT DETECTION AND TRAFFIC MONITORING.	$56.96
4ITS07004	CALTRANS DISTRICT 8	ULTIMATE TMC	IMPROVED TRAFFIC FLOW AND SAFETY.	$40.76
4ITS07005	CALTRANS DISTRICT 8	CHANGEABLE MESSAGE SIGNS	TRAVELER INFORMATION ON TRAFFIC AND SAFETY CONDITIONS.	$24.07
4ITS07008	CALTRANS DISTRICT 8	ADVANCED WEATHER WARNING	WEATHER MONITORING AND DETECTION.	$5.44
4ITS07011	CALTRANS DISTRICT 8	HIGHWAY ADVISROY RADIO EXPANSION	TRAVELER INFORMATION ON TRAFFIC AND SAFETY CONDITIONS.	$2.52
4ITS07015	CALTRANS DISTRICT 8	ENVIRONMENTAL SENSING UNITS	ENVIRONMENTAL HAZARDS DETECTION.	$1.98
4ITS07016	CALTRANS DISTRICT 8	SYSTEMS SUPPORT DEVELOPMENT	SYSTEMS SUPPORT ELEMENTS TO TMC/FWY OPS.	$0.80
4ITS07006	FONTANA/ ONTARIO	FONTANA/ONTARIO AREA TMC	IMPROVED ARTERIAL TRAFFIC FLOW AND SAFETY.	$12.38
4ITS07007	INLAND EMPIRE ITS	ITS RR GRADE CROSSING VARIABLE SPEED WARNING	IMPROVED GRADE CROSSING SAFETY REDUCED DELAY.	$9.90
4ITS07009	INLAND EMPIRE ITS	ITS RR GRADE CROSSING IMPROVEMENTS	IMPROVED GRADE CROSSING SAFETY REDUCED DELAY.	$4.91
4ITS07013	INLAND EMPIRE ITS	ELECTRONIC CLEARANCE/PRE PASS PROGRAM	REDUCED DELAY TRUCKS/INCREASED COMPLIANCE WITH TRUCK SAFETY	$2.15
4ITS07017	INLAND EMPIRE ITS	TRUCK STOP KIOSKS	REDUCED DELAY TRUCKS/INCREASED COMPLIANCE WITH TRUCK SAFETY	$0.59
4ITS07019	INLAND EMPIRE ITS	OVERSIZE/WEIGHT PERMITTING	REDUCED DELAY TRUCKS/INCREASED COMPLIANCE WITH TRUCK SAFETY	$0.32
4ITS07020	INLAND EMPIRE ITS	SAN BERNARDINO WEST VALLEY TMC	IMPROVED ARTERIAL TRAFFIC FLOW AND SAFETY.	TBD
4ITS07021	INLAND EMPIRE ITS	SAN BERNARDINO EAST VALLEY TMC	IMPROVED ARTERIAL TRAFFIC FLOW AND SAFETY.	TBD
4ITS07022	INLAND EMPIRE ITS	HIGH DESERT TMC	IMPROVED ARTERIAL TRAFFIC FLOW AND SAFETY.	TBD
4ITS07014	OMNITRANS	TRANSIT TRAVELER INFORMATION	IMPROVED TRANSIT INFORMATION.	$2.02
4ITS07023	OMNITRANS	TRANSIT OPS. MANAGEMENT	IMPROVED TRANSIT RELIABILITY AND MODE SHIFT.	TBD
4ITS07024	OMNITRANS	OPS. MANAGEMENT PARATRANSIT	IMPROVED TRANSIT RELIABILITY AND MODE SHIFT.	TBD
4ITS07025	OMNITRANS	AUTOMATED FARE MANAGEMENT AND DATA	IMPROVED TRANSIT RELIABILITY AND MODE SHIFT.	TBD
4ITS07010	SANBAG	FREEWAY SERVICE PATROL	ACCIDENT AND INCIDENT REMOVAL AND REDUCTION THEREBY IMPROVING TRAFFIC FLOW AND SAFETY.	$3.84
4ITS07018	SUNLINE	TRANSIT ITS MOBILITY ENHANCEMENT	IMPROVED TRANSIT RELIABILITY AND MODE SHIFT.	$0.48

VENTURA COUNTY RTP PROJECTS

VENTURA COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
ARTERIAL	5AL07	0	ARTERIAL IMPROVEMENTS	COUNTYWIDE		ARTERIAL IMPROVEMENTS LUMP SUM	ONGOING	$879,303
GRADE SEPARATION	5GL04	0	GRADE SEPARATION	COUNTYWIDE		GRADE SEPARATION IMPROVEMENTS	ONGOING	$208,023
IC/RAMPS	5A0701	33	SR-33	AT STANLEY AVENUE		NEW TWO-LANE FREEWAY BRIDGE FOR SB TRAFFIC	2012	$10,536
IC/RAMPS	5M0104	101	SR-101	AT LA CONCHITA		EXTEND ACCELERATION AND DECELERATION LANES; AND CLOSE THREE MEDIAN CROSSINGS NEAR LA CONCHITA.	2014	$16,373
ITS	5ITS04	0	ITS	COUNTYWIDE		MISC. ITS PROJECT IMPLEMENTATION	ONGOING	$166,488
NON-MO-TORIZED	5O0703	0	MISC. TRANSPORTATION ENHANCEMENTS	COUNTYWIDE		TRANSPORTATION ENHANCEMENT	ONGOING	$31,216
NON-MO-TORIZED	5N011	0	ALONG SP BRANCH RAIL LINE	MONTALVO	LOS ANGELES COUNTY LINE	SANTA PAULA BRANCH RECREATIONAL TRAIL	2020	$76,948
O&M	5OM0702	0	OPERATIONS & MAINTENANCE	COUNTYWIDE		STATE HIGHWAY, ARTERIAL, AND TRANSIT PRESERVA-TION/MAINTENANCE AND OPERATIONS	ONGOING	$275,154
OTHER	5O0701	0	PLANTING/ LANDSCAPING	COUNTYWIDE		MISC. PLANTING AND LANDSCAPING	ONGOING	$62,433
OTHER	5O0702	0	RETROFIT SOUNDWALL PROGRAM	COUNTYWIDE		RETROFIT SOUNDWALL PROGRAM	ONGOING	$31,216
OTHER	5OM0701	118	SR-118	JCN 23 & 34 IN MOORPARK		CONSTRUCT NEW WEIGH STATION	2014	$27,016
TDM	5TDL04	0	TDM	COUNTYWIDE		MISC. TDM (NON-MOTORIZED, TELECOMMUTE, ETC.)	ONGOING	$62,433
TRANSIT - BUS	5TL04	0	TRANSIT SERVICE EXPANSION	COUNTYWIDE		COUNTYWIDE TRANSIT SERVICE EXPANSION	2035	$67,752
TRANSIT - BUS	5TL0703	0	BUS EXPANSIONS (INCLUDES PARATRANSIT)	COUNTYWIDE		BUS EXPANSIONS (INCLUDES PARATRANSIT)	ONGOING	$93,649
TRANSIT - COMMUTER RAIL	5CR104	0	METROLINK COMMUTER RAIL	IN VENTURA COUNTY		METROLINK COMMUTER RAIL SERVICE EXPANSION	2035	$67,752
TRANSIT - INTER-MODAL	5TC0701	0	MULTIMODAL TRANSPORTA-TION CENTER	IN DOWNTOWN VENTURA		SERVICE CENTER, PARKING, LAYOVER, AND RETAIL SPACE FOR RAIL, BUS, AND BICYCLE COMMUTERS.	2014	$64,904

VENTURA COUNTY RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
TRANSIT - OTHER	5TL0702	0	PLANNING & ADMINISTRA-TION			TRANSIT PLANNING & ADMINISTRATION	ONGOING	$104,055
TRANSIT - OTHER	5TL0706	0	FACILITY IMPROVEMENTS	COUNTYWIDE		NEW TRANSIT FACILITIES & IMPROVEMENTS	ONGOING	$62,433
TRANSIT - OTHER	5TL0707	0	MISC. ITEMS AND AMENITIES, ENHANCEMENTS	COUNTYWIDE		MISC. TRANSIT ITEMS	ONGOING	$31,216
TRANSIT - OTHER	5TR0701	0	BUS TRANSIT			MULTI-AGENCY TRANSPORTATION FACILITY	2012	$3,998

* For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

VENTURA COUNTY ARTERIAL PROJECTS

In the process of developing the 2008 RTP, the Ventura County Transportation Commission provided to SCAG a list of arterial improvement projects planned for implementation in Ventura County within the timeframe of the RTP. The projects in this list are included in the 2008 RTP subject to available funding as identified in the Ventura County RTP Projects list.

VENTURA COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
5A0744	ARROYO DRIVE	E/B SR-118 OFF-RAMP AT COLLINS DRIVE	CITY EASTERLY LIMITS	WIDEN ARROW DRIVE FROM 2 TO 4 LANES	2018	$7,006
5A0725	CENTRAL AVENUE WID-ENING IMPROVEMENT	SANTA CLARA AVE.	CAMARILLO CITY LIMITS	WIDEN FROM TWO LANES TO FOUR LANES	2020	$13,640
5G0405	GONZALES RD	SR-1 (OXNARD BLVD)	UPRR TRACKS	CONSTRUCT 6 LANE GRADE SEPARATION AT SR-1 (OXNARD BLVD) AND UPRR TRACKS WITH LEFT TURN POCKETS	2014	$24,655
5A0707	GRIMES CANYON ROAD AND HITCH BLVD RE-ALIGNMENT	AT SR118		ADD 2ND WESTBOUND THROUGH LANE AND 2ND EASTBOUND THROUGH LANE	2020	$6,127
5A0708	HARBOR BLVD	AT GOZALES ROAD		ADD 2ND SOUTHBOUND THROUGH LANE AND 2ND NORTHBOUND THROUGH LANE	2022	$2,355

VENTURA COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
5A0720	HARBOR BOULEVARD WIDENING IMPROVE-MENT	OXNARD CITY LIMITS	VENTURA CITY LIMITS	WIDEN FROM TWO LANES TO FOUR LANES, INCLUDING REPLACE-MENT OR WIDENING OF EXISTING BRIDGE	2030	$52,117
5A0715	HERMOSA RD	AT SR 150		INTERSECTION IMPROVEMENTS	2015	$442
5A0730	LOS ANGELES AVENUE	SEGMENT 1: 200' E/O ORCHID AVENUE SEGMENT 2: 200' E/O OF SEQUOIA AVENUE	"SEGMENT 1: 100' W/O SYCAMORE DRIVE SEMENT 2: 100' W/O OF DARRAH AVENUE"	WIDEN SOUTH SIDE OF LOS ANGELES AVENUE BY ADDING A LANE (FROM 4 TO 5 LANES)	2010	$3,130
5A0735	LOS ANGELES AVENUE	APPROXIMATELY 1250' E/O SYCAMORE DRIVE	APPROXIMATELY 1000' E/O SYCAMORE DRIVE	WIDEN TAPO CHANNEL BRIDGE AT LOS ANGELES AVENUE (15' ON THE NORTH SIDE & 20' ON THE SOUTH SIDE). THIS INCLUDES ADDITION OF ONE LANE IN EACH DIRECTION (FROM 4 TO 6 LANES), RELOCATION OF THE EXISITING UTILITIES & MODIFICATIONS TO UPSTREAM & DOWN STREAM OF THE CHANNEL.	2010	$1,252
5AL04	MISC. ARTERIAL IMPROVEMENTS (NON-CAPACITY)	COUNTYWIDE		MISC. ARTERIAL IMPROVEMENTS (NON-CAPACITY)	2035	$254,071
5A0742	NORTHHILLS PARKWAY	W/B SR-118 OFF-RAMP AT PRINCETON	CITY WESTERLY LIMITS AT SR-118	CONSTRUCT 4-LANE FREEWAY CONNECTION ON NEW ALIGNMENT	2023	$21,180
5A0723	OLIVAS PARK DRIVE	PERKIN AVE	AUTO CENTER DRIVE	CONSTRUCT 4-LANE EXTENSION	2009	$10,539
5A0746	PEARL ST	FOX ST	BALD ST	GAP CLOSURE EXTENSION	2014	$2,120
5A0709	PLEASANT VALLEY ROAD	AT E. 5TH STREET		ADD 2ND SOUTHBOUND THROUGH LANE AND 2ND NORTHBOUND THROUGH LANE	2017	$1,567
5A0721	PLEASANT VALLEY ROAD WIDENING IMPROVE-MENT	DODGE RD	LAS POSAS ROAD	WIDEN FROM TWO TO FOUR LANES	2030	$39,392
5A0743	PRINCETON AVENUE	SR-118 OFFRAMP AT PRINCETON AVE	SPRING ROAD	WIDEN, REALIGN AND RECONSTRUCT FROM 2 TO FOUR LANES	2018	$11,210
5A0710	RICE AVENUE	AT WOOLEY ROAD		ADD 3RD NORTHBOUND THROUGH LANE AND 3RD SOUTHBOUND THROUGH LANE	2015	$1,267

VENTURA COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
5A0711	RICE AVENUE	AT CHANNEL ISLANDS BLVD		ADD 3RD NORTHBOUND THROUGH LANE AND 3RD SOUTHBOUND THROUGH LANE AND SOUTHBOUND RIGHT-TURN LANE	2015	$1,267
5A0402	ROSE AVE	AT GONZALEZ RD		CONSTRUCT 4 LANE FLYOVER WITH LEFT TURN POCKETS	2018	$31,862
5G0404	ROSE AVE	AT SR-34 (E. FIFTH ST)		CONSTRUCT 4 LANE GRADE SEPARATION WITH LEFT TURN POCKETS	2014	$24,655
5A0719	SANTA CLARA AVENUE WIDENING IMPROVE-MENT	N/O OXNARD CITY LIMITS	SR 118	WIDEN FROM TWO TO FOUR LANES	2018	$30,071
5A0716	SOMIS RD/SR118/DON-LON D INTERSECTION IMPROVEMENTS			WIDEN INTERSECTION, ADD TURN LANES, RALIGN DONLON ROAD (COUNTY PORTION ONLY)	2020	$6,127
5A0705	SR 33	SR 33	SR 150 AT "Y"	ROUNDABOUT	2020	$1,622
5A0706	SR 33	SR 33	CUYAMA RD	ROUNDABOUT	2014	$644
5A0703	SR-118	AT COLLINS DRIVE		INTERCHANGE AND SIGNAL IMPROVEMENT. WIDEN W/B OFF-RAMP TO ADD A FREE RIGHT- TURN LANE AND SIGNAL MODIFICATION.	2011	$2,001
5G0403	SR-232 (VINEYARD AVE)	OXNARD BLVD	SAINT MARY'S DRIVE	CONSTRUCT 6 LANE GRADE SEPARATION OVER UPRR TRACKS	2014	$24,655
5A0704	SR33/SR150	VARIOUS LOCATIONS		VARIOUS MINOR SPOT IMPROVEMENTS TO REDUCE CONGESTION ON SR 33 AND 150 IN OJAI VALLEY AND NEAR OJAI	2025	$3,287
5A0734	STEARNS STREET	COCHRAN STREET	LEEDS STREET	WIDENING OF STEARNS STREET TO ADD A LANE IN EACH DIRECTION (FROM 2 TO 4 LANES)	2010	$1,707
5A0728	TAPO CANYON RD	WALNUT STREET	LOST CANYON RD.	WIDEN TAPO CANYON ROAD TO ADD AN ADDITIONAL LANE IN EACH DIRECTION (FROM 2 TO 4 LANES) AND A DIVIDED CENTER MEDIAN.	2012	$5,393
5A0738	TAPO STREET	WALNUT STREET	PRESIDIO DR.	WIDENING OF TAPO STREET TO ADD A LANE IN EACH DIRECTION (FROM 2 TO 4 LANES)	2010	$740
5A0736	TBD	BETWEEN FLANAGAN DRIVE	AND EVENING SKY DR.	PROVIDES THE MISSING LINK (A 60' ROAD WITH TWO LANES) BE-TWEEN TWO STREETS (FLANAGAN DR. & EVENING SKY DR.). FROM 0 TO 2 LANES)	2010	$911
5A0713	TOPA TOPA ST	FOX ST	MONTGOMERY ST	GAP CLOSURE EXTENSION	2015	$1,149
5A0401	VICTORIA AVE	AT GONZALES RD		CONSTRUCT 4 LANE FLYOVER WITH LEFT TURN POCKETS	2018	$31,862

VENTURA COUNTY ARTERIAL PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
5A0712	VICTORIA AVENUE	AT GONZALES ROAD		CONVERT SOUTHBOUND RIGHT-TURN LANE TO SHARED 3RD SOUTHBOUND THROUGH LANE/SOUTHBOUND RIGHT TURN LANE, ADD 2ND SOUTHBOUND LEFT-TURN LANE AND NORTHBOUND RIGHT-TURN LANE AND CONVERT DUAL WESTBOUND THROUGH LANE TO WESTBOUND RIGHT-TURN LANE AND SHARED WESTBOUND THROUGH LANE/2ND WESTBOUND RIGHT-TURN LANE	2020	$1,633
5A0714	VICTORIA AVENUE	AT OLIVAS PARK DRIVE		ADD ADDITIONAL EB-WB THROUGH LANES AND NB LEFT TURN LANES	2009	$474
5A0722	VICTORIA AVENUE WIDENING IMPROVE-MENT - A	GONZALES ROAD	VENTURA CITY LIMITS	WIDEN FROM FOUR LANES TO SIX LANES	2030	$29,729
5A0726	VICTORIA AVENUE WIDENING IMPROVE-MENT - B	GONZALES ROAD	OXNARD CITY LIMITS	WIDEN FROM FOUR LANES TO SIX LANES	2030	$18,983
5A0732	WENDY DRIVE WIDENING IMPROVEMENTS	BORCHARD ROAD	THOUSAND OAKS CITY LIMITS	RE-STRIPE FROM TWO TO FOUR LANES; INLCUDES REPLACEMENT OR WIDENING OF EXISTING BRIDGE	2018	$2,134

* For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

VENTURA COUNTY GRADE SEPARATION PROJECTS

In the process of developing the 2008 RTP, the Ventura County Transportation Commission provided to SCAG a list of grade separation improvement projects planned for implementation in Ventura County within the timeframe of the RTP. The projects in this list are included in the 2008 RTP subject to available funding as identified in the Ventura County RTP Projects list.

VENTURA COUNTY GRADE SEPARATION PROJECTS						
RTP ID	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLETION BY:	PROJECT COST ($1,000'S)
5G0701	LOS ANGELES AVENUE			LA AVENUE GRADE SEPARATION. GRADE-SEPARATE LA AVENUE (MP 437.0) IN SIMI VALLEY. REALIGN 0.30-MILE-LONG CURVE SOUTH OF LOS ANGELES AVENUE, CONSTRUCT LOS ANGELES AVENUE OVERPASS, CONSTRUCT 0.48 MILE OF NEW TRACK TO FRA CLASS 5 STANDARDS.	2019	$156,288
5G0102	SR118	NEAR GRIMES CANYON		CROSOOVER ON SR118 NEAR GRIMES CANYON	2011	$58,431

REGIONAL RTP PROJECTS

REGIONAL RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
HSRT - FREIGHT	HSRT0702	0	HSRT (TECHNOLOGY TBD)	PORTS OF LOS ANGELES/LONG BEACH	HOBART YARD	HIGH-SPEED REGIONAL TRANSPORT (HSRT): SPUR FROM PORTS OF LOS ANGELES/LONG BEACH TO HOBART YARD FOR FREIGHT MOVEMENT	2020	$17,899,546
HSRT - PAS-SENGER	HSRT0701	0	HIGH-SPEED RAIL	ANAHEIM	UNION STATION	HIGH-SPEED REGIONAL TRANSPORT (HSRT): (CALIFORNIA HIGH-SPEED RAIL AUTHORITY) - ANAHEIM TO UNION STATION	2020	$4,009,021 (Plan assumes cost covered by state HSRT Bond Act)
HSRT - PAS-SENGER	HSRT0703	0	HSRT (TECHNOLOGY TBD)	LAX/WEST LA	ONTARIO AIRPORT	HIGH-SPEED REGIONAL TRANSPORT (HSRT): IOS (LAX-WEST LA-UNION STATION-WEST COVINA-ONTARIO AIRPORT)	2020	$18,941,077
HSRT - PAS-SENGER	HSRT0704	0	HSRT (TECHNOLOGY TBD)	ONTARIO AIRPORT	SAN BERNARDINO AIRPORT	HIGH-SPEED REGIONAL TRANSPORT (HSRT): IOS EXTEN-SION FROM ONTARIO AIRPORT TO SAN BERNARDINO AIRPORT	2020	$3,453,152
HSRT - PAS-SENGER	HSRT0705	0	HSRT (TECHNOLOGY TBD)	ANAHEIM	ONTARIO AIRPORT	HIGH-SPEED REGIONAL TRANSPORT (HSRT): (CALIFOR-NIA-NEVADA SUPERSPEED TRAIN COMMISSION) - ANA-HEIM TO ONTARIO AIRPORT	2020	$6,705,772
TOLL	1C0404	TBD	HIGH DESERT COR-RIDOR	I-5	US-395	HIGH DESERT CORRIDOR, CONSTRUCT NEW 4-6 LANE FACILITY: E-W I-14 TO US-395 (CONNECTING AT SB CO #20020144), E-W I-5 TO SR-14, N-S SR-14 TO SR-138.	2030	$6,958,029
DEBT SER-VICE	1C0404-DS	TBD	HIGH DESERT COR-RIDOR	I-5	US-395	DEBT SERVICE - HIGH DESERT CORRIDOR	ONGOING	$2,838,404
TOLL	1M0101	710	SR-710 (GAP CLO-SURE)	VALLEY BOULEVARD	CALIFORNIA BL & PASADENA AVE	CONSTRUCT 4 TOLL LANES IN EACH DIRECTION IN TUN-NEL TO COMPLETE THE 710 FREEWAY	2020	$4,616,060
DEBT SER-VICE	1M0101-DS	710	SR-710 (GAP CLO-SURE)	VALLEY BOULEVARD	CALIFORNIA BL & PASADENA AVE	DEBT SERVICE - 710 TUNNEL	ONGOING	$1,726,734

REGIONAL RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
TOLL	3C01MA03	0	CETAP - RIVER-SIDE COUNTY TO ORANGE COUNTY	WESTERN RIVER-SIDE COUNTY	ORANGE COUNTY	CETAP - RIVERSIDE COUNTY TO ORANGE COUNTY: - CONSTRUCT NEW INTERCOUNTY TRANSPORTATION CORRIDOR A - 2 TOLL EACH DIR ON NEW FACILITY PARALLEL TO SR-91, FROM SR-241 TO I-15, WITH IC AT SR-241, SR-71, I-15; - PRELIMINARY ENGINEERING AND ENVIRONMENTAL IMPACT REPORT/STATEMENT ONLY ON CORRIDOR B - 2 TOLL EACH DIR ON NEW FACILITY FROM I-15/MID-COUN-TY PKWY TO SR-241/SR-133	2035	$11,938,050
DEBT SER-VICE	3C01MA03-DS	0	CETAP - RIVER-SIDE COUNTY TO ORANGE COUNTY	WESTERN RIVER-SIDE COUNTY	ORANGE COUNTY	DEBT SERVICE - CETAP RIV TO OC CORRIDOR A	ONGOING	$1,978,321
MIXED FLOW AND TRUCK TOLL LANES	1C0401	710	I-710	OCEAN BLVD IN LONG BEACH	INTERMODAL RAILROAD YARDS IN COMMERCE/ VERNON	I-710 CORRIDOR USER-FEE BACKED CAPACITY EN-HANCEMENT - WIDEN TO 5 MIXED FLOW + 2 DEDICATED LANES FOR CLEAN TECHNOLOGY TRUCKS (EACH DIREC-TION) AND INTERCHANGE IMPROVEMENTS, FROM OCEAN BLVD IN LONG BEACH TO THE INTERMODAL RAILROAD YARDS IN COMMERCE/VERNON	2020	$8,239,161
DEBT SER-VICE	1C0401-DS	710	I-710	OCEAN BLVD IN LONG BEACH	INTERMODAL RAILROAD YARDS IN COMMERCE/ VERNON	DEBT SERVICE - I-710 CORRIDOR	ONGOING	$5,939,925
RAILROAD CAPACITY	RRC0701	0	REGIONAL RAIL CA-PACITY PROGRAM	REGIONWIDE		RAIL INVESTMENT PACKAGE - RAIL CAPACITY	2015	$3,149,301
GRADE SEPARATION	RRC0702	0	REGIONAL RAIL CA-PACITY PROGRAM	REGIONWIDE		RAIL INVESTMENT PACKAGE - GRADE SEPARATIONS	2015	$5,995,841
OTHER	RRC0703	0	REGIONAL RAIL CA-PACITY PROGRAM	REGIONWIDE		RAIL INVESTMENT PACKAGE - TIER 4 ENGINES	2021	$3,771,002
DEBT SER-VICE	RRC07-DS	0	REGIONAL RAIL CA-PACITY PROGRAM	REGIONWIDE		DEBT SERVICE - RAIL INVESTMENT PACKAGE - RAIL CAPACITY, GRADE SEPARATIONS, TIER 4 ENGINES	ONGOING	$10,100,413

REGIONAL RTP PROJECTS								
CAT-EGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	PROJECT COMPLE-TION BY*	PROJECT COST ($1,000'S)
O&M	REG0701	0	HIGHWAY OPERA-TIONS & MAINTE-NANCE	REGIONWIDE		STATE HIGHWAY PRESERVATION/MAINTENANCE AND OPERATIONS PROJECTS (INCLUDES SHOPP, HIGHWAY BRIDGE PROGRAM, EMERGENCY RELIEF, PUBLIC LAND HIGHWAYS, HAZARD ELIMINATION AND SAFETY, SAFE ROUTES TO SCHOOLS, HIGH RISK RURAL ROADS, AND SECTION 130 STP RAILROAD PROGRAM PROJECTS)	ONGOING	SEE FINANCIAL PLAN HIGHWAY OPERATIONS AND MAINTENACE COST
O&M	REG0702	0	TRANSIT OPERA-TIONS & MAINTE-NANCE	REGIONWIDE		TRANSIT PRESERVATION/MAINTENANCE, REHABILITA-TION/REPLACEMENT AND OPERATIONS PROJECTS	ONGOING	SEE FINANCIAL PLAN TRANSIT OPERATIONS AND MAINTENACE COST
O&M	REG0703	0	ARTERIAL OPERA-TIONS & MAINTE-NANCE	REGIONWIDE		ARTERIAL PRESERVATION/MAINTENANCE AND OPERA-TIONS PROJECTS	ONGOING	SEE FINANCIAL PLAN LOCAL STREETS AND ROADS OPERA-TIONS AND MAIN-TENACE COST
OTHER	REG0704	0	OTHER PROGRAMS	REGIONWIDE		RECREATIONAL TRAILS, SCENIC BYWAYS, TRANS-PORTATION COMMUNITY AND SYSTEM PRESERVATION PROGRAM PROJECTS	ONGOING	SEE FINANCIAL PLAN OTHER COST
OTHER	100705	0	TBD			INTERMODAL FACILITIES (LOCATION TBD)	TBD	PRIVATELY FINANCED

* For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

Strategic Plan Projects

The following is an illustrative list of additional investments that the region would pursue if additional funding were to become available, and after further consensus building is undertaken to solidify commitment around specific project scopes and strategies. These projects are not part of the financially constrained RTP.

IMPERIAL COUNTY STRATEGIC PLAN PROJECTS

IMPERIAL COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U6A07001	0	PORT OF ENTRY (POE)/ CESAR CHAVEZ			POE/CESAR CHAVEZ IMPROVEMENTS, BRIDGE, TRAFFIC SIGNALS, GRADE SEPARATION, STREET IMPROVEMENTS	CITY OF CALEXICO
ARTERIAL	U6A07002	0	IMPERIAL AVE.	MCCABE RD.	I-8	IMPROVE TO 6 PA	TBD
ARTERIAL	U6A07003	0	FORRESTER RD.	SR-98	SR-78/86	IMPROVE/CONSTRUCT NORTH SOUTH CORRIDOR	TBD
ARTERIAL	U6A07004	0	DOGWOOD RD.	SR-98	MEAD RD.	IMPROVE TO 4PA	TBD
ARTERIAL	U6A07005	0	MCCABE RD.	AUSTIN RD.	SR-111	IMPROVE TO 6PA	TBD
ARTERIAL	U6A07007	0	KEYSTONE	FORRESTER RD.	SR-115	NEW EAST-WEST 6PA CORRIDOR	TBD
ARTERIAL	U6A07010	0	IMPERIAL AVE.	I-8	ATEN	IMPROVE TO 6PA	TBD
ARTERIAL	U6A07011	0	8TH STREET (EL CENTRO)			WIDEN TO 4 LANES	TBD
ARTERIAL	U6A07009	0	AUSTIN RD.	MCCABE RD.	SR-86	IMPROVE TO 6PA	TBD
ARTERIAL	U6A01006	78	SR-78	SR-115	RIVERSIDE COUNTY LINE	IMPROVE CAPACITY	TBD
ARTERIAL	6M01004	111	SR-111	SHANK RD.	SR-115	IMPROVE TO CONVENTIONAL HIGHWAY	TBD
GRADE SEPARATION	U6G07001	0	VARIOUS GRADE SEPARATIONS			VARIOUS (10 CROSSINGS) WARD, HWY. 78, MALAN, MEAD, KEYSTONE, ATEN ROAD, WEST MAIN STREET (EVAN HEWES HWY), DOGWOOD, EAST MAIN ST., W. COLE	TBD
IC/RAMPS	U6M07001	7	SR-7			NEW INTERCHANGE SR-7 TO ACCESS NEW AIRPORT	TBD
IC/RAMPS	U6M07003	8	I-8	8TH STREET OVERPASS (EL CENTRO)		WIDEN OVERPASS TO 4 LANES.	TBD
IC/RAMPS	U6M07005	86	AUSTIN RD.	MCCABE RD.	SR-86	CONSTRUCT INTERCHANGE	TBD
IC/RAMPS	U6M01007	111	SR-111	SR-78	I-8	WIDEN TO 6 LANES & CONSTRUCTION NEW INTERCHANGES SR-78, KEYSTONE, WORTHINGTON, & ATEN	COUNTY OF IMPERIAL

IMPERIAL COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
IC/RAMPS	U6M07004	186	SR-186/I-8			IMPROVE INTERCHANGE - ON SR-186 ADD 1 LANE EACH DIR BETWEEN RAMPS, AND WIDEN RAMPS	TBD
MIXED FLOW	U6A01010	0	WESTMORELAND BYPASS	EAST OF WESTMORELAND	WEST OF WESTMORELAND (AT SR-78/86)	CONSTRUCT 4E EXTENSION	COUNTY OF IMPERIAL
MIXED FLOW	U6A01019	0	BOWKER ROAD	INTERNATIONAL BORDER/ANZA ROAD	NORTH OF I-8	IMPROVE INTERCHANGE TO 6E	TBD
MIXED FLOW	U6M01010	8	I-8	NEW NORTH-SOUTH FACILITY ALONG FORRESTER RD CORRIDOR	SR-111	IMPROVE TO 6F	COUNTY OF IMPERIAL
MIXED FLOW	U6M07002	111	SR-111	WILKINSON RD.	RIVERSIDE COUNTY LINE	IMPROVE TO CONVENTIONAL HIGHWAY	TBD
MIXED FLOW	U6M01009	115	SR-115	EVAN HEWES HWY	SR-78	CONSTRUCT 4E EXTENSION	COUNTY OF IMPERIAL
MIXED FLOW	U6M01008	115	SR-115	SR-78	SR-111	WIDEN TO 4-LANE EXPRESSWAY	COUNTY OF IMPERIAL
MIXED FLOW	UIMP0021	115	SR-115/78	BRAWLEY BYPASS	SR-78	CONSTRUCT CONVENTIONAL 4-LANE HIGHWAY	COUNTY OF IMPERIAL

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U1A0702	0	111TH ST			111TH STREET FROM AVIATION BLVD TO LA CIENEGA BLVD. WIDEN AND RESTRIPE TO ACCOMMODATE TWO THROUGH LANES IN EACH DIRECTION.	CITY OF LOS ANGELES
ARTERIAL	U1A0703	0	ALAMEDA ST			ALAMEDA ST WIDENING AND RECONSTRUCTION BTWN US-101 AND 26TH ST REBUILD STREET AND REPAVE TO HEAVY DUTY VEHICLE STANDARDS; INSTALL CHANNELIZATION AND WIDEN CURB RETURNS TO FACILITATE TRUCK MOVEMENTS BTWN US-101 AND 26TH ST	CITY OF LOS ANGELES
ARTERIAL	U1A0704	0	ALAMEDA ST			ALAMEDA ST. WIDENING - 7TH ST. TO 101 FWY.. RECONSTRUCT ALAMEDA BLVD. WITHIN THE PROJECT LIMITS.	CITY OF LOS ANGELES
ARTERIAL	U1A0705	0	ALVARADO ST			WIDEN ALVARADO ST (SR-2) UNDER US-101 TO CREATE A SB LEFT TURN LANE ONTO EB US-101 ON-RAMP	CITY OF LOS ANGELES
ARTERIAL	U1A0706	0	ANAHEIM ST			ANAHEIM ST. WIDENING FROM FARRAGUT AVE. TO DOMINGUEZ CHANNEL. WIDEN TO MAJOR HWY. STDS. 4 TO 6 LANES	CITY OF LOS ANGELES
ARTERIAL	U1A0707	0	ANAHEIM ST			ANAHEIM ST./ GAFFEY ST./PALOS VERDES DR. INTERSECTION IMPROVEMENT (ROUNDABOUT FOR 5 POINTS). CREATE A ROUNDABOUT FOR A FIVE LEGGED INTERSECTION IN THE WILMINGTON AREA.	CITY OF LOS ANGELES
ARTERIAL	U1A0708	0	AVIATION BLVD			AVIATION BLVD FROM ARBOR VITAE ST TO IMPERIAL HWY. WIDEN AND RESTRIPE TO ACCOMMODATE THREE THROUGH LANES IN EACH DIRECTION.	CITY OF LOS ANGELES
ARTERIAL	U1A0709	0	BALBOA BLVD			BALBOA BLVD. WIDENING AT DEVONSHIRE ST.. WIDEN EAST SIDE OF BALBOA FOR APPROXIMATELY 500 FEET AND RESTRIPE THE INTERSECTION.	CITY OF LOS ANGELES
ARTERIAL	U1A0710	0	BARHAM BLVD			WIDEN BARHAM BLVD BETWEEN CAHUENGA AND BURBANK CITY LIMIT TO INCREASE CAPACITY	CITY OF LOS ANGELES
ARTERIAL	U1A0711	0	BARHAM BLVD			BARHAM BLVD AT CAHUENGA BLVD. WEST. INCREASE INTERSECTION CAPACITY.	CITY OF LOS ANGELES
ARTERIAL	U1A0712	0	BARHAM BLVD			WIDEN BARHAM BLVD BRIDGE AT HOLLYWOOD FWY TO INCREASE TRAFFIC CAPACITY THAT MATCHES A STREET WIDENING PROJECT PROGRAMMED IN 2001 CFP	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U1A0713	0	BARHAM BLVD			BARHAM BLVD BRIDGE/US 101 FWY BRIDGE REPLACEMENT. REPLACE THE EXISTING BRIDGE TO INCREASE TRAFFIC CAPACITY, AND WIDEN/RESTRIPE SB US-101 OFF-RAMP AT BARHAM BLVD TO PROVIDE SB DOUBLE LEFT TURNS.	CITY OF LOS ANGELES
ARTERIAL	U1A0714	0	BEAUDRY AV			WIDEN BEAUDRY AVENUE TO PERMIT NORTHBOUND LEFT TURN LANE AND TO MAINTAIN TWO FULL-TIME NORTHBOUND LANES ON BEAUDRY AVE BETWEEN TEMPLE AND SUNSET	CITY OF LOS ANGELES
ARTERIAL	U1A0715	0	BEVERLY BLVD			BEVERLY BLVD. WIDENING - JUANITA TO NEW HAMPSHIRE. WIDEN BEVERLY BLVD ROADWAY FROM 56' TO 70'.	CITY OF LOS ANGELES
ARTERIAL	U1A0716	0	BEVERLY GLEN BLVD			BEVERLY GLEN BLVD AND MULHOLLAND DR . WIDEN SOUTH LEG OF BEVERLY GLEN BLVD TO CREATE A RIGHT TURN ONLY LANE.	CITY OF LOS ANGELES
ARTERIAL	U1A0717	0	BRANFORD ST			BRANFORD ST. WIDENING IN PACOIMA. STREET WIDENING AND SIDEWALK, INCREASE PED SAFETY.	CITY OF LOS ANGELES
ARTERIAL	U1A0718	0	BROADWAY			BRAZIL ST./BROADWAY & SAN FERNANDO RD. CROSSINGS. IMPROVE TRAFFIC FLOW AT BRAZIL ST. CROSSING THROUGH WIDENING, ADDITIONAL TRAFFIC LANES, AND UPGRADING BOTH SIGNAL AND RAILROAD TRAFFIC CONTROL DEVICES.	CITY OF LOS ANGELES
ARTERIAL	U1A0719	0	BUNDY DR			BUNDY DR. WIDENING - WILSHIRE BLVD. TO SANTA MONICA BLVD.. WIDEN BUNDY DR. TO PROVIDE AN ADDITIONAL LANE IN EACH DIRECTION.	CITY OF LOS ANGELES
ARTERIAL	U1A0720	0	BURBANK BLVD			BURBANK BLVD BETWEEN BALBOA BLVD AND SEPULVEDA BLVD. ELEVATE BURBANK BLVD IN THE FLOOD CONTROL BASIN TO AVOID CLOSURES DURING RAINY SEASON	CITY OF LOS ANGELES
ARTERIAL	U1A0721	0	BURBANK BLVD			BURBANK BLVD. WIDENING - CLYBOURNE AVE. TO VINELAND AVE.. WIDENING ON BOTH SIDES OF STREET	CITY OF LOS ANGELES
ARTERIAL	U1A0722	0	BURBANK BLVD			BURBANK BLVD. WIDENING - CLEON TO LANKERSHIM BLVD. WIDEN BOTH SIDES AND IMPROVE INTERSECTIONS	CITY OF LOS ANGELES
ARTERIAL	U1A0723	0	CAHUENGA BLVD			WIDEN CAHUENGA BLVD WEST BTWN HIGHLAND AVE AND BARHAM BLVD; WIDEN/CANTILEVER OVER THE FWY TO PROVIDE TWO LANES IN EACH DIRECTION WITH PEDESTRIAN SIDEWALK AND BICYCLE LANE, AND LEFT TURN LANES AT MULHOLLAND AND OAKCREST	CITY OF LOS ANGELES
ARTERIAL	U1A0724	0	CAHUENGA BLVD			CAHUENGA BLVD. EAST. ADD A NB LANE FROM ODIN ST TO BARHAM BLVD.	CITY OF LOS ANGELES
ARTERIAL	U1A0725	0	CANOGA AVE			WIDEN CANOGA AVE UNDER THE FREEWAY OVERPASS TO FULL STANDARD	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U1A0726	0	CANOGA AVE			CANOGA AVE AT ROSCOE . CANOGA AVE AT ROSCOE - WIDEN TO ADD A NB RIGHT-TURN LANE, EB THROUGH LANE, AND WB SECOND LEFT-TURN LANE.	CITY OF LOS ANGELES
ARTERIAL	U1A0727	0	CENTINELA AVE			CENTINELA AVE BETWEEN SHORT AVE AND JEFFERSON BLVD . WIDEN TO SECONDARY HIGHWAY STANDARDS.	CITY OF LOS ANGELES
ARTERIAL	U1A0728	0	CHATSWORTH ST			CHATSWORTH STREET - DE SOTO AVE TO TOPANGA CYN BLVD. WIDEN TO INCREASE CAPACITY.	CITY OF LOS ANGELES
ARTERIAL	U1A0729	0	COLDWATER CYN AV			COLDWATER CANYON AVE BETWEEN VENTURA BLVD & MAGNOLIA BLVD . REMOVE JUT-OUTS TO ADD ONE THROUGH LANE IN EACH DIRECTION.	CITY OF LOS ANGELES
ARTERIAL	U1A0730	0	COLDWATER CYN AV			COLDWATER CYN AVE AT 101 FWY - WIDEN TO PROVIDE DUAL LEFT-TURNS TO TWO ON-RAMPS	CITY OF LOS ANGELES
ARTERIAL	U1A0731	0	COLDWATER CYN AV			COLDWATER CYN AVE AT MULHOLLAND DR. (WEST INTERSECTION) . WIDEN COLDWATER AND MULHOLLAND TO IMPROVE CAPACITY.	CITY OF LOS ANGELES
ARTERIAL	U1A0732	0	COLFAX AVE			REPLACE COLFAX AVE BRIDGE OVER LA RIVER WITH SIGNATURE SPAN AND WIDEN TO VENTURA BLVD	CITY OF LOS ANGELES
ARTERIAL	U1A0733	0	COLLEGE ST			COLLEGE ST. BRIDGE OVER 110 FWY. REPLACE WITH WIDER BRIDGE TO IMPROVE CAPACITY. RAISE THE SUPERSTRUCTURE TO RESOLVE UNDERCLEARANCE DEFICIENCY.	CITY OF LOS ANGELES
ARTERIAL	U1A0734	0	CRENSHAW BLVD			CRENSHAW BLVD & I-10 WB ON-RAMP. WIDEN SB CRENSHAW BLVD TO PROVIDE A SB RIGHT TURN ONLY LANE AND REDESIGN THE WB OFF-RAMP TO REDUCE CONGESTION AND IMPROVE INTERSECTION OPERATION.	CITY OF LOS ANGELES
ARTERIAL	U1A0735	0	DE SOTO AVE			DE SOTO AVE/US-101 RAMPS . DE SOTO AVE/US-101 RAMPS – WIDEN DE SOTO AVE UNDER FWY BRIDGE TO PROVIDE MORE CAPACITY.	CITY OF LOS ANGELES
ARTERIAL	U1A0736	0	DE SOTO AVE			DE SOTO AVE. WIDENING - RONALD REGAN FWY. TO DEVONSHIRE ST.. WIDEN DE SOTO TO PROVIDE CURBS, GUTTERS, SIDEWALKS, AND PROVIDE AN ADDITIONAL LANE IN EACH DIRECTION.	CITY OF LOS ANGELES
ARTERIAL	U1A0737	0	ENTERPRISE ST			WIDEN ENTERPRISE ST AT MATEO ST (NEAR WB I-10 OFF-RAMP) TO IMPROVE TRUCK MOVEMENT AT CURB RETURNS.	CITY OF LOS ANGELES
ARTERIAL	U1A0738	0	EXPOSITION BLVD			EXPOSITION PARK TRAFFIC CIRCULATION IMPROVEMENTS. STREET WIDENING AND INSTALLATION OF RIGHT TURN ONLY LANES ALONG MAJOR ARTERIAL CORRIDORS SURROUND EXPOSITION PARK.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U1A0739	0	EXPOSITION BLVD			EXPOSITION BLVD/BALLONA CRK. WIDEN EXISTING BRIDGE TO REMOVE BOTTLENECKS AND DEFICIENCIES.	CITY OF LOS ANGELES
ARTERIAL	U1A0740	0	FIGUEROA ST			FIGUEROA ST - CYPRESS AVE TO 5 FWY. WIDEN TO ADD SOUTH-BOUND CAPACITY.	CITY OF LOS ANGELES
ARTERIAL	U1A0741	0	FIGUEROA ST			FIGUEROA ST BETWEEN 146TH ST AND REDONDO BEACH BLVD. WIDEN FIGUEROA ST TO MAJOR HIGHWAY STANDARD FROM 62' TO 80' TO PROVIDE THREE LANES IN EACH DIRECTION	CITY OF LOS ANGELES
ARTERIAL	U1A0742	0	FLETCHER DR			FLETCHER DRIVE AT GLENDALE BLVD. WIDEN TO INCREASE CAPACITY.	CITY OF LOS ANGELES
ARTERIAL	U1A0743	0	FLETCHER ST			FLETCHER ST BRIDGE/LA RIVER. WIDEN TO INCREASE CAPACITY AND IMPROVE ACCESS TO I-5 FWY. ALSO ADD BIKE LANES AND SIDEWALKS.	CITY OF LOS ANGELES
ARTERIAL	U1A0744	0	FOOTHILL BLVD			WIDEN FOOTHILL BLVD BTWN SIERRA HWY AND BALBOA BLVD TO INCREASE CAPACITY	CITY OF LOS ANGELES
ARTERIAL	U1A0745	0	FOOTHILL BLVD			FOOTHILL BLVD. AND SIERRA HWY. INTERSECTION IMPROVE-MENTS. WIDEN FOOTHILL BLVD. AT SIERRA HWY. BY 40 FT. FOR AN EXCLUSIVE LEFT-TURN LANES, THROUGH LANES AND DUAL FREE RIGHT-TURN LANES AND INTEGRATE TRAFFIC SIGNAL WITH THE ATCS.	CITY OF LOS ANGELES
ARTERIAL	U1A0746	0	FOREST LAWN DR			FOREST LAWN DR. BRIDGE OVER LA RIVER. CONSTRUCT AN ACCESS BRIDGE (INCL. EQUESTRIAN TRAIL) OVER LA RIVER AT LAEC. RE-ALIGN SR 134 ON/OFF RAMPS AT FOREST LAWN DR. TO ENHANCE TRAFFIC FLOW IN AND AROUND THE NEW BRIDGE.	CITY OF LOS ANGELES
ARTERIAL	U1A0747	0	FOUNTAIN AV			WIDEN FOUNTAIN AVE BETWEEN SUNSET BLVD AND WESTERN AVE TO INCREASE CAPACITY	CITY OF LOS ANGELES
ARTERIAL	U1A0748	0	FRANKLIN AVE			FRANKLIN AVE/CAHUENGA BLVD. WIDEN TO ADD A SECOND WB RIGHT-TURN ONLY LANE AND ADD A RIGHT-TURN SIGNAL.	CITY OF LOS ANGELES
ARTERIAL	U1A0749	0	GLENOAKS BLVD			GLENOAKS BLVD AT SUNLAND BLVD. WIDEN EAST SIDE OF GLENO-AKS BLVD TO IMPROVE CAPACITY.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U1A0750	0	GRAND AVE			WIDEN GRAND AVE BRIDGE BETWEEN CESAR CHAVEZ AND TEMPLE ST OVER US-101 TO IMPROVE ACCESS TO US-101 AND I-110 ON-RAMPS AND ALLOW DUAL LEFT-TURN LANE TO 101 & 110 ON-RAMPS, AND ADD THRU LANE AND RIGHT-TURN LANE. WIDEN SIDEWALK FOR FUTURE SCHOOL AND GRAND PLAZA ACCESS AND STUDY REPALCEMENT ALTERNATIVE.	CITY OF LOS ANGELES
ARTERIAL	U1A0751	0	HASKELL AVE			HASKELL AVE. WIDENING - CHASE ST. TO ROSCOE BLVD.. WIDEN BOTH SIDES OF HASKELL TO PROVIDE CURBS, GUTTERS, SIDE-WALKS, AND AN ADDITIONAL TRAFFIC LANES.	CITY OF LOS ANGELES
ARTERIAL	U1A0752	0	HAYVENHURST AV			HAYVENHURST AVE BETWEEN MAGNOLIA BLVD AND VENTURA BLVD. WIDEN OR REALIGN THE JUTOUTS ON THE WEST SIDE TO CITY STANDARDS	CITY OF LOS ANGELES
ARTERIAL	U1A0753	0	HIGHLAND AVE			HIGHLAND AVE. AND FRANKLIN AVE. STREET IMPROVEMENTS - PHASE II. WIDEN THE W/S OF HIGHLAND N/O FRANKLIN AVE.	CITY OF LOS ANGELES
ARTERIAL	U1A0754	0	HOLLYWOOD BLVD			HOLLYWOOD BLVD. WIDEN EB HOLLYWOOD BLVD BETWEEN VAN NESS AVE AND US-101 TO PROVIDE EB LEFT-TURN LANE TO VAN NESS AVE.	CITY OF LOS ANGELES
ARTERIAL	U1A0755	0	HUBBARD ST			HUBBARD ST/ FOOTHILL BLVD. WIDEN TO IMPROVE CAPACITY & SIGNAL OPERATION.	CITY OF LOS ANGELES
ARTERIAL	U1A0756	0	HYPERION AVE / GLEN-DALE BLVD			WIDEN HYPERION AVE/GLENDALE BLVD BRIDGE OVER I-5 FWY TO INCLUDE BIKE LANES, SHOULDERS, AND SIDEWALKS	CITY OF LOS ANGELES
ARTERIAL	U1A0757	0	IMPERIAL HWY			IMPERIAL HWY BETWEEN SEPULVEDA BLVD AND PERSHING DR. WIDEN TO PROVIDE CONTINUOUS THREE THROUGH LANES IN EACH DIRECTION.	CITY OF LOS ANGELES
ARTERIAL	U1A0758	0	LA CIENEGA BLVD			LA CIENEGA BLVD FROM ARBOR VITAE ST TO 111 ST. WIDEN AND RESTRIPE TO ACCOMMODATE THREE THROUGH LANES IN EACH DIRECTION.	CITY OF LOS ANGELES
ARTERIAL	U1A0701	0	LA CIENEGA BLVD.	I-405	I-10	LA CIENEGA BLVD CORRIDOR IMPROVEMENTS	CITY OF LOS ANGELES
ARTERIAL	U1A0759	0	LA TIJERA BLVD			LA TIJERA BLVD BETWEEN AIRPORT BLVD AND LA CIENEGA BLVD. WIDEN AND RESTRIPE TO PROVIDE CONTINUOUS THREE THROUGH LANES IN EACH DIRECTION.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U1A0760	0	LAUREL CANYON BLVD			LAUREL CANYON BL/LA CIENEGA BL BETWEEN US-101 AND I-10 – BUILD A TUNNEL TO CONNECT US-101 AND I-10 (APPROX. 10 MILES)	CITY OF LOS ANGELES
ARTERIAL	U1A0761	0	LAUREL CYN			LAUREL CYN. BLVD. WIDENING SOUTH OF MULHOLLAND DR.. WIDEN WEST SIDE OF LAUREL CANYON SOUTH OF MULHOLLAND TO PROVIDE AN ADDITIONAL SOUTHBOUND LANE.	CITY OF LOS ANGELES
ARTERIAL	U1A0762	0	LINCOLN BLVD (SR-1)			WIDEN LINCOLN BLVD BRIDGE OVER THE BALLONA CREEK, INCLUDING RECONSTRUCTION OF THE CULVER BLVD BRIDGE OVER LINCOLN BLVD	CITY OF LOS ANGELES
ARTERIAL	U1A0763	0	LOS ANGELES ST			LOS ANGELES ST BRIDGE OVER US-101: REPLACE WITH LONGER BRIDGE FOR INCREASED LATERAL UNDERCLEARANCE; COVER NB ON-RAMP WITH A PORTAL FRAME FOR INCREASED OPEN SPACE FOR PROPOSED PARK	CITY OF LOS ANGELES
ARTERIAL	U1A0764	0	MAGNOLIA BLVD			EXTEND MAGNOLIA BLVD FROM HAYVENHURST AVE TO LIBBIT AVE. EXTEND MAGNOLIA BLVD FROM HASKELL AVE TO SEPULVEDA BLVD	CITY OF LOS ANGELES
ARTERIAL	U1A0765	0	MAGNOLIA BLVD			WIDEN MAGNOLIA BLVD FROM COLFAX AVE TO LAUREL CYN BLVD TO INCREASE CAPACITY	CITY OF LOS ANGELES
ARTERIAL	U1A0766	0	MAGNOLIA BLVD			MAGNOLIA BLVD. WIDENING - CAHUENGA BLVD. TO VINELAND AVE.. ST. WIDENING, SIDEWALK, CURB, AND GUTTER.	CITY OF LOS ANGELES
ARTERIAL	U1A0767	0	MAIN & DALY			CAPACITY ENHANCEMENT AT DALY ST AND MAIN ST INCREASE CURB RETURNS AT NW AND SW CORNERS OF DALY AND MAIN TO FACILITATE TRUCK MOVEMENTS	CITY OF LOS ANGELES
ARTERIAL	U1A0768	0	MELROSE AV			MELROSE AVE BETWEEN VERMONT AVE AND WESTERN AVE. REMOVE ON-STREET PARKING; WIDEN TO HAVE 1 LEFT-TURN LANE AND 2 THROUGH LANES EACH WAY WITH 10-FOOT SIDEWALKS	CITY OF LOS ANGELES
ARTERIAL	U1A0769	0	MELROSE AV			WIDEN SOUTH SIDE OF MELROSE AVE BTWN WESTERN AVE AND US-101 BY 10 FT TO INCREASE CAPACITY	CITY OF LOS ANGELES
ARTERIAL	U1A0770	0	MISSION RD			MISSION RD. WIDENING - GRIFFIN AVE. TO MARENGO ST.. WIDEN MISSION ROAD FROM 60' TO 80' ROADWAY.	CITY OF LOS ANGELES
ARTERIAL	U1A0771	0	MONTEREY RD			MONTEREY ROAD NORTH OF HUNTINGTON DR. WIDEN AND RE-ALIGN INTERSECTION, POSSIBLY CLOSE ACCESS TO BROWNE AVE.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U1A0772	0	MOORPARK AVE			MOORPARK AVE. WIDENING - WOODMAN AVE. TO MURIETTA AVE.. ST. WIDENING, STREET LIGHTS, CURB & GUTTER	CITY OF LOS ANGELES
ARTERIAL	U1A0773	0	MULHOLLAND DR			WIDEN MULHOLLAND DR FROM SAN FELICIANO DR TO FLAMINGO ST TO REDUCE CONGESTION	CITY OF LOS ANGELES
ARTERIAL	U1A0774	0	NAVY WAY			NAVY WAY AT SEASIDE AVE (SR-47). BUILD A NEW FLYOVER CONNECTOR FROM NB NAVY WAY TO WB SEASIDE AVE	CITY OF LOS ANGELES
ARTERIAL	U1A0775	0	NORTH SPRING ST			NORTH SPRING ST. WIDENING - ROUNDOUT ST. TO BAKER ST.. WIDEN N SPRING ST. BETWEEN ROUNDOUT ST. AND BAKER FROM 44' TO AN 80 ' ROADWAY WITH WITH LANDSCAPED MEDIANS.	CITY OF LOS ANGELES
ARTERIAL	U1A0776	0	OLYMPIC BLVD			OLYMPIC BLVD AT ALAMEDA ST WIDEN TO IMPROVE TRUCK MOVEMENT (RIGHT-OF-WAY REQUIRED)	CITY OF LOS ANGELES
ARTERIAL	U1A0777	0	OSBORNE ST			WIDEN OSBORNE ST BTWN FOOTHILL BLVD AND SAN FERNANDO RD FOR PEDESTRIAN SAFETY AND IMPROVED TRAFFIC CAPACITY	CITY OF LOS ANGELES
ARTERIAL	U1A0778	0	OXNARD ST			EXTEND OXNARD ST. FROM SEPULVEDA BLVD TO WOODLEY AVE AND BUILD A HALF INTERCHANGE TO NORTHBOUND I-405	CITY OF LOS ANGELES
ARTERIAL	U1A0779	0	PENROSE ST			PENROSE ST – TUJUNGA ST TO GLENOAKS BLVD -. WIDEN TO SECONDARY HWY STANDARDS TO PROVIDE 2 THROUGH LANES PLUS LEFT- TURN CHANNELIZATION IN EACH DIRECTION.	CITY OF LOS ANGELES
ARTERIAL	U1A0780	0	POLK ST			POLK ST . POLK ST - WIDEN BETWEEN BORDEN AV & ELDRIDGE AV (NEAR I-210) TO PROVIDE LEFT TURN POCKETS.	CITY OF LOS ANGELES
ARTERIAL	U1A0781	0	RIVERSIDE DR			RIVERSIDE DR FROM VAN NUYS BLVD TO SEPULVEDA BLVD - EXTEND RIVERSIDE DR FROM VAN NUYS BLVD TO SEPULVEDA BLVD	CITY OF LOS ANGELES
ARTERIAL	U1A0782	0	RIVERSIDE DR			WIDEN RIVERSIDE DR AT SOUTHBOUND SR-170 OFF-RAMP TO PROVIDE DOUBLE RIGHT TURNS ONTO SB TUJUNGA AVE (FREEWAY COLUMNS ARE IN THE WAY)	CITY OF LOS ANGELES
ARTERIAL	U1A0783	0	RIVERSIDE DR			RIVERSIDE DR. OVERCROSSING AT SR-134. WIDEN THE BRIDGE TO ACCOMMODATE A MEDIAN LEFT TURN LANE ONTO WESTBOUND SR134, NEW SHOULDER/BIKE ROUTE ON EACH SIDE, AND WIDER SIDEWALKS. CONSTRUCT THE NEW TRAFFIC SIGNALS TO IMPROVE TRAFFIC PROGRESSION.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U1A0784	0	ROSCOE BLVD			ROSCOE BL. WIDENING- HASKELL AVE. TO I-405 FWY. SB ON-RAMP. WIDEN 160 FEET OF ROSCOE ON THE SOUTH SIDE TO CREATE AN EASTBOUND RIGHT TURN ONLY LANE TO THE I-405 FWY.	CITY OF LOS ANGELES
ARTERIAL	U1A0785	0	ROXFORD & SEP-ULVEDA			CAPACITY ENHANCEMENTS AND RAMP IMPROVEMENTS AT ROXFORD ST/SEPULVEDA BL/I-5 WIDEN AND SIGNALIZE ROXFORD STREET/SEPULVEDA BLVD AT I-5 TO FACILITATE TRUCK MOVE-MENTS	CITY OF LOS ANGELES
ARTERIAL	U1A0786	0	ROXFORD ST			ROXFORD ST. WIDENING AT SEPULVEDA BLVD.. WIDEN CURB RADIUS FOR TRUCKS. SIDEWALK, CURB AND GUTTER IMPROVE-MENTS.	CITY OF LOS ANGELES
ARTERIAL	U1A0787	0	ROXFORD ST			ROXFORD ST. & 210 FWY. RAMPS IMPROVEMENTS. IMPROVE I-210 FREEWAY ACCESS AT ROXFORD BY PROVIDING ADDITIONAL SOUTHBOUND RIGHT TURN AND LEFT TURN LANES; AND AN AD-DITIONAL WESTBOUND LEFT TURN LANE FROM THE OFF-RAMP.	CITY OF LOS ANGELES
ARTERIAL	U1A0788	0	SAN FERNANDO / MISSION			SAN FERNANDO MISSION WIDENING - SEPULVEDA BLVD. TO I-5. WIDEN TO 70FT, INCREASE FROM 2 TO 4 LANES, 0.61 MI	CITY OF LOS ANGELES
ARTERIAL	U1A0789	0	SAN FERNANDO RD			SAN FERNANDO ROAD SIERRA HWY TO SEPULVEDA BLVD/ROX-FORD ST. WIDEN AND INSTALL REVERSIBLE LANE.	CITY OF LOS ANGELES
ARTERIAL	U1A0790	0	SAN FERNANDO RD			WIDEN SAN FERNANDO RD FROM SR-2 TO I-5 TO MAJOR OR SECONDARY HIGHWAY STANDARD; CONSTRUCT STREETSCAPE, LIGHTING, AND PARKING	CITY OF LOS ANGELES
ARTERIAL	U1A0791	0	SAN FERNANDO RD			WIDEN SAN FERNANDO RD FROM TYBURN ST TO SR-2 TO MAJOR HIGHWAY STANDARD	CITY OF LOS ANGELES
ARTERIAL	U1A0792	0	SAN FERNANDO RD WEST			CAPACITY ENHANCEMENTS AT SAN FERNANDO RD WEST/BRAZIL ST AND SAN FERNANDO RD WEST/DORAN ST WIDEN AND IMPROVE NORTH AND SOUTH SIDES OF BRAZIL ST AND DORAN ST TO CRE-ATE ADDITIONAL LANES, CURB AND GUTTER IN EACH DIRECTION; INCREASE CURB RETURNS TO FACILITATE TRUCK MOVEMENTS	TBD
ARTERIAL	U1A0793	0	SANTA FE AV			SANTA FE AVENUE - 8TH STREET TO OLYMPIC BLVD. WIDEN TO INCREASE CAPACITY AND ACCESS TO I-10 RAMPS	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U1A0794	0	SANTA FE AVE			SANTA FE AVE/PORTER ST INTERSECTION. WIDEN INTERSECTION TO IMPROVE TRUCK MOVEMENT AT CURB RETURNS.	CITY OF LOS ANGELES
ARTERIAL	U1A0795	0	SATICOY ST			BUILD A TUNNEL ON SATICOY ST UNDERNEATH THE VAN NUYS AIRPORT BETWEEN WOODLEY ST AND HAYVENHURST AVE	CITY OF LOS ANGELES
ARTERIAL	U1A0796	0	SEPULVEDA BLVD			WIDEN SEPULVEDA BOULEVARD BTWN OLYMPIC BLVD AND PICO BLVD TO MAJOR HIGHWAY STANDARD	CITY OF LOS ANGELES
ARTERIAL	U1A0797	0	SEPULVEDA BLVD			EXTEND SEPULVEDA BLVD FROM RINALDI ST TO ROXFORD ST	CITY OF LOS ANGELES
ARTERIAL	U1A0798	0	SEPULVEDA BLVD			WIDEN/RESTRIPE SEPULVEDA BLVD FROM RINALDI ST TO MULHOL-LAND TUNNEL TO PROVIDE PEAK HOUR REVERSIBLE LANES	CITY OF LOS ANGELES
ARTERIAL	U1A0799	0	SEPULVEDA BLVD			SEPULVEDA BLVD BETWEEN PICO BLVD TO NATIONAL BLVD. WIDEN TO MAJOR HWY STANDARD AND INCREASE NUMBER OF THROUGH LANES FROM TWO TO THREE LANES. (RIGHT-OF-WAY REQUIRED)	CITY OF LOS ANGELES
ARTERIAL	U1A0800	0	SEPULVEDA BLVD			SEPULVEDA BLVD BETWEEN NATIONAL BLVD TO VENICE BLVD. WIDEN TO MAJOR HWY STANDARD AND INCREASE NUMBER OF THROUGH LANES FROM TWO TO THREE LANES. (RIGHT-OF-WAY REQUIRED)	CITY OF LOS ANGELES
ARTERIAL	U1A0801	0	SEPULVEDA BLVD			SEPULVEDA BLVD TUNNEL AT MULHOLLAND BRIDGE. WIDEN EXISTING TUNNEL TO PROVIDE ADDITIONAL BIKE AND TRAFFIC LANES.	CITY OF LOS ANGELES
ARTERIAL	U1A0802	0	SHERMAN WAY			SHERMAN WAY CAPACITY IMPROVEMENTS	CITY OF LOS ANGELES
ARTERIAL	U1A0803	0	SHOUP AVE			SHOUP AVE WIDENING AT VETURA BLVD. WIDEN WEST SIDE OF SHOUP AVE FROM VENTURA BLVD TO ABOUT 170 FT S/O VENTURA BLVD AND RESTRIPE NB SHOUP AVE FOR ONE LT, ONE THROUGH, AND ONE RT/THROUGH AT THE INTERSECTION. (RIGHT-OF-WAY REQUIRED)	CITY OF LOS ANGELES
ARTERIAL	U1A0804	0	SIERRA HWY / OLD ROAD			SIERRA HWY/OLD ROAD . SIERRA HWY/OLD ROAD – WIDEN INTER-SECTION AND CONNECT WITH BALBOA BLVD ATSAC TO REDUCE CONGESTION.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U1A0805	0	SIXTH ST			SIXTH ST. VIADUCT OVER LA RIVER AND US-101 FWY.. RECONSTRUCT BRIDGE DUE TO MATERIAL DEFECTS	CITY OF LOS ANGELES
ARTERIAL	U1A0806	0	SPRING ST			SPRING ST FROM ALISO ST TO TEMPLE ST. WIDEN SPRING STREET TO PROVIDE AN ADDITIONAL SB LANE TO IMPROVE BUS OPERATIONS AND REDUCE CONGESTION.	CITY OF LOS ANGELES
ARTERIAL	U1A0807	0	STATE ST			STATE ST BETWEEN MARENGO ST AND CITY VIEW AVE. WIDEN THE LONG BRIDGE OVER I-10 FREEWAY TO ACCOMMODATE TWO LANES IN EACH DIRECTION WITH LEFT TURN CHANNELIZATION	CITY OF LOS ANGELES
ARTERIAL	U1A0808	0	STOCKER ST			WIDEN STOCKER STREET AT VICTORIA AVE TO INCREASE CAPACITY	CITY OF LOS ANGELES
ARTERIAL	U1A0809	0	SUNSET BLVD			WIDEN SUNSET BLVD BTWN LAS PALMAS AND MANSFIELD FROM 70' TO 78'	CITY OF LOS ANGELES
ARTERIAL	U1A0810	0	SUNSET BLVD			SUNSET BLVD - VIRGIL AVE TO VERMONT AVE. WIDEN TO INCREASE CAPACITY.	CITY OF LOS ANGELES
ARTERIAL	U1A0811	0	SUNSET BLVD			SUNSET BLVD. - BARRINGTON AVE. TO GUNSTON DR.. WIDEN BOTH SIDES OF SUNSET, INSTALL NEW SIDEWALKS, CURBS, GUTTERS, TRAFFIC SIGNALS, AND LANDSCAPING.	CITY OF LOS ANGELES
ARTERIAL	U1A0812	0	SUNSET BLVD			WIDEN SUNSET BLVD AT LA BREA AVE TO PROVIDE DUAL LEFT TURN LANES	CITY OF LOS ANGELES
ARTERIAL	U1A0813	0	TEMPLE ST			TEMPLE ST BETWEEN SR-110 FWY AND GRAND AVE. WIDEN TO INCREASE CAPACITY BY PROVIDING ADDITIONAL THROUGH LANES.	CITY OF LOS ANGELES
ARTERIAL	U1A0814	0	TOPANGA CANYON BLVD			WIDEN TO PROVIDE SIX THROUGH LANES ALL DAY BETWEEN 101 FWY AND 118 FWY	CITY OF LOS ANGELES
ARTERIAL	U1A0815	0	TUJUNGA AVE			WIDEN TUJUNGA AVE BRIDGE (HBRR PROJECT – DESIGN COMPLETE, CONSTRUCTION POSTPONED TO FY 2007-08)	CITY OF LOS ANGELES
ARTERIAL	U1A0816	0	VALLEY BLVD			VALLEY BLVD. CORRIDOR IMPROVEMENTS. IMPROVE CAPACITY AT RAILROAD CROSSINGS THROUGH WIDENING, ADDITIONAL LANES, CURB IMPROVEMENTS, AND UPGRADES IN SIGNAL AND RAILROAD EQUIPMENT.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
ARTERIAL	U1A0817	0	VAN NESS ST			SUNSET BLVD AT SB 101 OFF-RAMP. WIDEN VAN NESS ST FROM THE OFF-RAMP TO SUNSET BLVD TO ADD A RIGHT-TURN-ONLY LANE	CITY OF LOS ANGELES
ARTERIAL	U1A0818	0	VAN NUYS BLVD			IMPROVE CAPACITY ALONG SOUTHBOUND VAN NUYS BLVD SB BETWEEN BURBANK BLVD AND US-101	CITY OF LOS ANGELES
ARTERIAL	U1A0819	0	VENTURA BLVD			VENTURA BLVD . WIDEN BETWEEN SHOUP AV AND US-101 FREEWAY SB RAMPS TO PROVIDE DOUBLE LT LANES AND TWO THROUGH LANES.	CITY OF LOS ANGELES
ARTERIAL	U1A0820	0	VERMONT AVE			VERMONT AVE FROM WASHINGTON BLVD TO I-10 WB OFF-RAMP. WIDEN 10' ON EAST-SIDE OF VERMONT AVE TO PROVIDE LT LANE.	CITY OF LOS ANGELES
ARTERIAL	U1A0821	0	VICTORY BLVD			WIDEN VICTORY BLVD BTWN WHITE OAK AVE AND SEPULVEDA BLVD TO ADD CAPACITY	CITY OF LOS ANGELES
ARTERIAL	U1A0822	0	VICTORY BLVD			WIDEN VICTORY BLVD FROM TOPANGA CANYON BLVD TO DESOTO AVE TO MAJOR HIGHWAY CLASS I STANDARD	CITY OF LOS ANGELES
ARTERIAL	U1A0823	0	WESTERN AVE			WESTERN AVE. WIDENING - FLORENCE AVE. TO 80TH ST. AND AT MANCHESTER BLVD.. WIDEN WESTERN AVE. TO PROVIDE FOR RIGHT AND LEFT TURN LANES AT VARIOUS INTERSECTIONS WITHIN THE PROJECT LIMITS.	CITY OF LOS ANGELES
ARTERIAL	U1A0824	0	WILMINGTON AVE			WILMINGTON AVE BETWEEN 115TH ST AND IMPERIAL HWY. WIDEN AND RECONSTRUCT ROADWAY FROM 40' TO 60' TO PROVIDE TWO THROUGH LANES IN EACH DIRECTION.	CITY OF LOS ANGELES
ARTERIAL	U1A0825	0	WILSHIRE BLVD			WILSHIRE BLVD. WIDENING - BARRINGTON AVE TO 405 FWY. WIDEN WILSHIRE BLVD. TO 86 FEET ROADWAY WIDTH TO PROVIDE ADDITIONAL LANE IN EACH DIRECTION FOR BUSES.	CITY OF LOS ANGELES
ARTERIAL	U1A0826	0	WOODMAN AVE			WOODMAN AVE/US-101. WIDEN STREET UNDER THE 101 FREEWAY BRIDGE TO PROVIDE DUAL LEFT-TURN LANES FOR BOTH DIRECTIONS.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
GRADE SEPARATION	U1G0701	0	BROAD AVE			BROAD AVE FROM HARRY BRIDGES BLVD TO WATER ST. BUILD GRADE-SEPARATED ACCESS TO WATERFRONT AREA FROM RAIL LINES, EXTEND BROAD AVE TO WATER STREET, AND INSTALL BIKE LANES AND SIDEWALKS ON BOTH SIDES OF BROAD AVE	CITY OF LOS ANGELES
GRADE SEPARATION	U1G0702	0	EL MONTE BUSWAY			PROVIDE GRADE SEPARATION AT ALAMEDA ST FOR DIRECT ACCESS OF TRANSIT BUSES FROM DOWNTOWN LA TO EL MONTE BUSWAY	CITY OF LOS ANGELES
GRADE SEPARATION	U1G0703	0	LA CIENEGA BLVD			CONSTRUCT GRADE SEPARATIONS ON LA CIENEGA BLVD AT JEFFERSON BLVD, RODEO BLVD, LA TIJERA BLVD, AND MANCHESTER BLVD TO IMPROVE TRAVEL TIME ALONG LA CIENEGA BETWEEN I-10 AND LAX AREA.	CITY OF LOS ANGELES
GRADE SEPARATION	U1G0704	0	LINCOLN BLVD (SR-1)			LINCOLN BLVD/WASHINGTON BLVD. BUILD A GRADE SEPARATION TO REDUCE CONGESTION.	CITY OF LOS ANGELES
GRADE SEPARATION	U1G0705	0	N. MAIN ST			N. MAIN ST GRADE SEPARATION WITH LA RIVER/METROLINK/UNION PACIFIC RAILROAD	CITY OF LOS ANGELES
GRADE SEPARATION	U1G0706	0	SATICOY ST			SATICOY ST. BETWEEN VAN NUYS BLVD AND WOODMAN AVE - CONSTRUCT GRADE SEPARATION BETWEEN STREET AND RR TRACKS FOR IMPROVED SAFETY.	CITY OF LOS ANGELES
GRADE SEPARATION	U1G0707	0	SEPULVEDA BLVD			CONSTRUCT GRADE SEPARATION (UNDERPASS) AT THE SEPULVEDA BLVD AND WILSHIRE BLVD INTERSECTION	CITY OF LOS ANGELES
GRADE SEPARATION	U1G0708	0	SUNLAND BLVD			CONSTRUCT GRADE SEPARATION ON SUNLAND BLVD NEAR SAN FERNANDO RD	CITY OF LOS ANGELES
GRADE SEPARATION	U1G0709	0	ALAMEDA CORRIDOR NORTH			ALAMEDA CORRIDOR NORTH - BETWEEN SR-2 AND SR-134. GRADE SEPARATION (TRENCH) FOR COMMUTER AND FREIGHT RAIL LINES	TBD
HOV	U1H0705	2	SR-2			CONSTRUCT 4 LANE TUNNEL FOR HOV BETWEEN SR-2 TERMINUS AND I-10 FWY	CITY OF LOS ANGELES
HOV	U1H0705	5	I-5			ADD HOV LANE IN BOTH DIRECTIONS BETWEEN SR-134 AND I-110	CITY OF LOS ANGELES
HOV	U1H0702	10	I-10	I-405	SR-110	HOV LANES ON I-10 BETWEEN I-405 AND SR-110	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
HOV	U1H0705	60	SR-60			ADD HOV LANE FROM RT 101 TO I-605 (BOTH DIRECTIONS)	TBD
HOV	U1H0701	101	US-101	SR-170	I-405	HOV LANES ON US-101 BETWEEN SR-170 AND I-405	CITY OF LOS ANGELES
HOV	U1H0704	101	US-101	LANKERSHIM BLVD.	SR-110	HOV LANES ON US-101 BETWEEN LANKERSHIM BLVD. AND SR-110	CITY OF LOS ANGELES
HOV	U1H0705	101	US-101			CONSTRUCT HOV LANE CONNECTOR FROM 101 FWY TO EAST-WEST BUSWAY	CITY OF LOS ANGELES
HOV	U1H0705	101	US-101			ADD HOV LANES IN BOTH DIRECTIONS BETWEEN TOPANGA CANYON BLVD AND CITY BOUNDARY	CITY OF LOS ANGELES
HOV	U1H0703	110	SR-110	ADAMS BLVD.	I-10	HOV LANES ON SR-110 BETWEEN ADAMS BLVD. AND I-10	CITY OF LOS ANGELES
IC/RAMPS	U1M0711	2	SR-2 / I-5			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: SR-2/I-5 INTERCHANGE - ACCESS TO DOWNTOWN L.A.	CITY OF LOS ANGELES
IC/RAMPS	U1M0737	2	SR-2	SAN FERNANDO RD.		FREEWAY RAMP IMPROVEMENT: SR-2/SAN FERNANDO RD.	CITY OF LOS ANGELES
IC/RAMPS	U1M0720	5	ALAMEDA STREET BYPASS			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: ALAMEDA STREET BYPASS FOR ACCESS FROM I-5 TO DOWNTOWN L.A.	CITY OF LOS ANGELES
IC/RAMPS	U1M0723	5	I-5	HOLLYWOOD WAY		FREEWAY RAMP IMPROVEMENT: I-5 AT HOLLYWOOD WAY	CITY OF LOS ANGELES
IC/RAMPS	U1M0742	5	I-5			IMPROVE I-5 AND I-10 INTERCHANGE	CITY OF LOS ANGELES
IC/RAMPS	U1M0743	5	I-5			I-5 RAMPS AT ROXFORD ST/SEPULVEDA BLVD - WIDEN AND SIGNALIZE INTERSECTION TO IMPROVE ACCESS TO SB I-5 RAMPS.	CITY OF LOS ANGELES
IC/RAMPS	U1M0744	5	I-5			SB I-5 OFF-RAMP AT CALZONA ST IN BOYLE HEIGHTS CONSTRUCT A DECELERATION LANE AND A BARRIER BETWEEN THE OFF-RAMP AND THE ON-RAMP.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
IC/RAMPS	U1M0745	5	I-5			IMPROVE I-5 AND RT 134 INTERCHANGE	CITY OF LOS ANGELES
IC/RAMPS	U1M0746	10	I-10			MODIFY EB OFF-RAMPS AT WESTERN AVE, ARLINGTON AVE, CRENSHAW BLVD	CITY OF LOS ANGELES
IC/RAMPS	U1M0747	10	I-10			LINCOLN BLVD RAMPS IMPROVEMENT	CITY OF LOS ANGELES
IC/RAMPS	U1M0748	10	I-10			CENTINELA AV RAMPS IMPROVEMENT	CITY OF LOS ANGELES
IC/RAMPS	U1M0749	10	I-10			EB I-10 ON-RAMP AT OLYMPIC BLVD MAKE THE RAMP ACCESSIBLE FROM BOTH DIRECTIONS ON OLYMPIC BLVD, REALIGN THE RAMP AND INSTALL TRAFFIC SIGNAL. (RIGHT-OF-WAY REQUIRED)	CITY OF LOS ANGELES
IC/RAMPS	U1M0750	10	I-10			WB I-10 OFF-RAMP AT MATEO ST IMPROVE CURB RETURNS TO IMPROVE TRUCK MOVEMENT. (RIGHT-OF-WAY REQUIRED)	CITY OF LOS ANGELES
IC/RAMPS	U1M0751	10	I-10			MAJOR RAMP RECONFIGURATION AT ROBERTSON AND VENICE	TBD
IC/RAMPS	U1M0780	10	I-10			I-10/ROBERTSON NATIONAL AREA CIRCULATION IMPROVEMENT PROJECT	TBD
IC/RAMPS	1M0711	60	I-605/SR-60			RECONSTRUCT I-605/SR-60 INTERCHANGE	TBD
IC/RAMPS	1M0712	60	I-605/I-10			RECONSTRUCT I-605/I-10 INTERCHANGE	TBD
IC/RAMPS	1M0710	91	SR-91/I-605			RECONSTRUCT SR-91/I-605 INTERCHANGE	TBD
IC/RAMPS	U1M0724	101	US-101	VERMONT AV.		FREEWAY RAMP IMPROVEMENT: US-101/VERMONT AV.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
IC/RAMPS	U1M0725	101	US-101	CAHUENGA BLVD.		FREEWAY RAMP IMPROVEMENT: US-101/CAHUENGA BLVD.	CITY OF LOS ANGELES
IC/RAMPS	U1M0726	101	US-101	HIGHLAND AV.		FREEWAY RAMP IMPROVEMENT: US-101/HIGHLAND AV.	CITY OF LOS ANGELES
IC/RAMPS	U1M0727	101	US-101	VENTURA BLVD.		FREEWAY RAMP IMPROVEMENT: US-101/VENTURA BLVD.	CITY OF LOS ANGELES
IC/RAMPS	U1M0728	101	US-101	COLD WATER CANYON BLVD.		FREEWAY RAMP IMPROVEMENT: US-101/COLD WATER CANYON BLVD.	CITY OF LOS ANGELES
IC/RAMPS	U1M0729	101	US-101	VAN NUYS BLVD.		FREEWAY RAMP IMPROVEMENT: US-101/VAN NUYS BLVD.	CITY OF LOS ANGELES
IC/RAMPS	U1M0730	101	US-101	HAYVENHURST AV.		FREEWAY RAMP IMPROVEMENT: US-101/HAYVENHURST AV.	CITY OF LOS ANGELES
IC/RAMPS	U1M0731	101	US-101	CANOGA AV.		FREEWAY RAMP IMPROVEMENT: US-101/CANOGA AV.	CITY OF LOS ANGELES
IC/RAMPS	U1M0732	101	US-101	TOPANGA CANYON BLVD.		FREEWAY RAMP IMPROVEMENT: US-101/TOPANGA CANYON BLVD.	CITY OF LOS ANGELES
IC/RAMPS	U1M0733	101	US-101	FALLBROOK AVE.		FREEWAY RAMP IMPROVEMENT: US-101/FALLBROOK AVE.	CITY OF LOS ANGELES
IC/RAMPS	U1M0752	101	US-101			IMPROVE US-101 AND I-110 INTERCHANGE. NB I-110 CONNECTOR TO NB I-101: EXTEND 2 LANES TO GLENDALE BLVD OFF-RAMP (ELIMINATE MERGING OF 2 LANES INTO 1 LANE)	CITY OF LOS ANGELES
IC/RAMPS	U1M0753	101	US-101			US-101/VAN NUYS BLVD RECONFIGURE WB ON/ OFF-RAMPS AS HOOK RAMPS CONNECTING ONTO RIVERSIDE DR & ELIMINATE EXISTING WB OFF-RAMP.	CITY OF LOS ANGELES
IC/RAMPS	U1M0754	101	US-101			CANOGA AVE/US-101 WB OFF-RAMP - WIDEN WB OFF-RAMP TO PROVIDE A RT ONLY LANE TO CANOGA AVE.	CITY OF LOS ANGELES
IC/RAMPS	U1M0755	101	US-101			WIDEN EDGEWARE BRIDGE ON SB US-101 BETWEEN GLENDALE BLVD ON-RAMP AND US-101/I-110 INTERCHANGE TO PROVIDE AUXILIARY LANES	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
IC/RAMPS	U1M0756	101	US-101			CONSTRUCT DIRECT NB ON AND OFF-RAMPS TO THE HOLLYWOOD BOWL PARKING LOTS	CITY OF LOS ANGELES
IC/RAMPS	U1M0757	101	US-101			BUILD NEW SB US-101 ON- AND OFF-RAMPS AT CAMPO DE CAHUENGA WAY (VENTURA BLVD EXIT FROM NORTHBOUND DIRECTION)	CITY OF LOS ANGELES
IC/RAMPS	U1M0758	101	US-101			US-101/LAUREL CANYON BLVD WIDEN WB ON-RAMP TO THREE LANES TO PROVIDE A CARPOOL BY-PASS LANE.	CITY OF LOS ANGELES
IC/RAMPS	U1M0759	101	US-101			SB US-101 ON-RAMP AT UNIVERSAL CENTER DR BUILD A NEW DIRECT ON-RAMP FROM UNIVERSAL CENTER DR.	CITY OF LOS ANGELES
IC/RAMPS	U1M0760	101	US-101			NB US-101 ON-RAMP AT HOLLYWOOD BLVD LENGTHEN AND WIDEN THE RAMP TO TWO LANES.	CITY OF LOS ANGELES
IC/RAMPS	U1M0761	101	US-101			WIDEN SB US-101 OFF-RAMP AT WESTERN AVE VIA LEXINGTON AVE TO PROVIDE ADDITIONAL LEFT-TURN LANE.	CITY OF LOS ANGELES
IC/RAMPS	U1M0762	101	US-101			NB US-101 OFF-RAMP AND SB US-101 ON-RAMP AT SANTA MONICA. WIDEN NB US-101 OFF-RAMP TO PROVIDE TWO EXIT LANES, AND ADD A DEDICATED RIGHT TURN ONLY LANE AT INTERSECTION: AND WIDEN EB SANTA MONICA BLVD AT SB US-101 ON-RAMP TO ADD A RIGHT TURN ONLY LANE ONTO THE ON-RAMP.	CITY OF LOS ANGELES
IC/RAMPS	U1M0763	101	US-101			NB US-101 OFF-RAMP AT MELROSE AVE WIDEN OFF-RAMP TO PROVIDE TWO EXIT LANES, AND ADD A DEDICATED RIGHT TURN ONLY LANE AT INTERSECTION TO PROVIDE THREE LANES (LEFT TURN, OPTIONAL AND RIGHT TURN).	CITY OF LOS ANGELES
IC/RAMPS	U1M0764	101	US-101			SB US-101 RAMPS AT NORMANDIE AVE/MELROSE AVE EXTEND THE OFF-RAMP TO CONNECT DIRECTLY TO NORMANDIE AVE; BUILD A SERVICE ROAD FROM THE OFF-RAMP TO MELROSE AVE AND CONNECT DIRECTLY TO THE SB ON-RAMP AT MELROSE. (RIGHT-OF-WAY REQUIRED)	CITY OF LOS ANGELES
IC/RAMPS	U1M0736	110	I-110	3RD ST.		FREEWAY RAMP IMPROVEMENT: I-110/3RD ST.	CITY OF LOS ANGELES
IC/RAMPS	U1M0765	110	I-110			BETWEEN US-101 AND I-10 - RECONFIGURE FREEWAY RAMPS TO PROVIDE ADDITIONAL NB LANE AND SB LANE IN THE DOWNTOWN AREA	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
IC/RAMPS	U1M0766	110	I-110			I-110/SR-47/HARBOR BLVD INTERCHANGE IMPROVEMENTS LENGTHEN DECELERATION AND SIGHT DISTANCES ON THE I-110 AND SR-47 CONNECTORS, SEPARATE TRUCK TRAFFIC FROM AUTO TRAFFIC TO ELIMINATE TRAFFIC CONFLICTS.	CITY OF LOS ANGELES
IC/RAMPS	U1M0717	170	SR-170 NB / I-5			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: SR-170 NORTHBOUND AT I-5 - S. F. VALLEY	CITY OF LOS ANGELES
IC/RAMPS	U1M0767	210	I-210			ADDITIONAL LANE ON THE CONNECTOR FROM NB I-210 TO NB I-5	CITY OF LOS ANGELES
IC/RAMPS	U1M0718	405	I-405 NB / I-5			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: I-405 NORTHBOUND AT I-5 - S.F. VALLEY	CITY OF LOS ANGELES
IC/RAMPS	U1M0734	405	I-405	SKIRBALL DR.		FREEWAY RAMP IMPROVEMENT: I-405/SKIRBALL DR.	CITY OF LOS ANGELES
IC/RAMPS	U1M0735	405	I-405	SUNSET BLVD.		FREEWAY RAMP IMPROVEMENT: I-405/SUNSET BLVD.	CITY OF LOS ANGELES
IC/RAMPS	U1M0768	405	I-405			NB I-405/NB I-5 INTERCHANGE EXTEND 4TH LANE NB ON 405 FWY ALL THE WAY TO I-210 FREEWAY.	CITY OF LOS ANGELES
IC/RAMPS	U1M0769	405	I-405			I-405/NORDHOFF ST WIDEN RAMPS TO REDUCE CONGESTION.	CITY OF LOS ANGELES
IC/RAMPS	U1M0770	405	I-405			I-405/ROSCOE BLVD WIDEN SOUTH SIDE OF ROSCOE BLVD TO ADD A EB THROUGH LANE AND WIDEN THE SB ON-RAMP TO ADD A CAR-POOL BYPASS LANE.	CITY OF LOS ANGELES
IC/RAMPS	U1M0771	405	I-405			I-405/SHERMAN WAY WIDEN SB ON AND OFF-RAMP TO ADD A LANE.	CITY OF LOS ANGELES
IC/RAMPS	U1M0772	405	I-405			NB I-405 AT SEPULVEDA/VENTURA BLVD BUILD A NEW NB OFF-RAMP AND ON-RAMP AT MORRISON ST TO RELIEVE CONGESTION AT SEPULVEDA/VENTURA INTERSECTION.	CITY OF LOS ANGELES
IC/RAMPS	U1M0773	405	I-405			NB I-405 OFF-RAMP AT IMPERIAL HWY WIDEN OFF-RAMP FROM TWO LANES TO THREE LANES.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
IC/RAMPS	U1M0713	10/5/60	I-10/I-5/SR-60			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: I-10/I-5/SR-60 INTERCHANGE - EAST L.A.	CITY OF LOS ANGELES
IC/RAMPS	U1M0774	10/101	I-10/US-101			WIDEN CESAR CHAVEZ AVE OVERCROSSING OVER I-10 AND RELOCATE NB 101 FWY RAMPS AT CESAR CHAVEZ AVE	CITY OF LOS ANGELES
IC/RAMPS	U1M0721	10/110	I-10/SR-110			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: I-10/SR-110 INTERCHANGE	CITY OF LOS ANGELES
IC/RAMPS	U1M0714	10/405	I-10/I-405			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: I-10/I-405 INTERCHANGE - WEST L.A.	CITY OF LOS ANGELES
IC/RAMPS	U1M0719	101/110	US-101/SR-110			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: US-101/SR-110 INTERCHANGE - DOWNTOWN L.A.	CITY OF LOS ANGELES
IC/RAMPS	U1M0715	101/134/170	US-101/SR-134/SR-170			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: US-101/SR-134/SR-170 INTERCHANGE - S. F. VALLEY	CITY OF LOS ANGELES
IC/RAMPS	U1M0716	101/405	US-101/I-405			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: US-101/I-405 INTERCHANGE - S. F. VALLEY	CITY OF LOS ANGELES
IC/RAMPS	U1M0722	5/110	I-5/SR-110			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: I-5/SR-110 INTERCHANGE	CITY OF LOS ANGELES
IC/RAMPS	U1M0712	5/14/ 210	I-5/SR-14/I-210			FREEWAY TO FREEWAY INTERCHANGE IMPROVEMENTS: I-5/SR-14-/I-210 INTERCHANGE - S.F. VALLEY	CITY OF LOS ANGELES
ITS	U1ITS0701	0	CITYWIDE			VEHICLE INFRASTRUCTURE INTEGRATION - TO INTEGRATE VEHICLE NAVIGATION SYSTEM WITH INTELLIGENT TRANSPORTATION SYSTEM (ITS)	CITY OF LOS ANGELES
ITS	U1ITS0702	0	NORTH SAN FERNANDO VALLEY, SOUTH CENTRAL LOS ANGELES			COMPLETE CITYWIDE ATSAC SYSTEM	CITY OF LOS ANGELES
MIXED FLOW	U1M0739	0		SR-14	SR-232	TUNNEL CONNECTION BETWEEN SR-14 (PALMDALE) AND SR-2 (GLENDALE)	CITY OF LOS ANGELES
MIXED FLOW	U1M0740	0	LAUREL CANYON BLVD	US-101	I-10	TUNNEL (CROSS MOUNTAIN) CONNECTION BETWEEN US-101 AND I-10 ALONG LAUREL CANYON BLVD.	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
MIXED FLOW	U1M0706	2	SR-2	I-5	SR-134	FREEWAY CORRIDOR IMPROVEMENTS	CITY OF LOS ANGELES
MIXED FLOW	U1M0775	2	SR-2			SR-2 FROM I-5 TO SR-110 – BUILD A TUNNEL UNDER GLENDALE BLVD CONNECTING FROM I-5 THROUGH US-101 TO SR-110	CITY OF LOS ANGELES
MIXED FLOW	U1M0703	5	I-5	SR-14	I-405	FREEWAY CORRIDOR IMPROVEMENTS	CITY OF LOS ANGELES
MIXED FLOW	U1M0704	5	I-5	SR-134	SR-110	FREEWAY CORRIDOR IMPROVEMENTS	CITY OF LOS ANGELES
MIXED FLOW	U1M0776	5	I-5			SB FROM MARIETTA ST TO LORENA ST. CONSTRUCT SB AUXILIARY LANE ON I-5 FROM MARIETTA ST TO LORENA ST	CITY OF LOS ANGELES
MIXED FLOW	U1M0777	5	I-5			GLENDALE BLVD AT SR-2. IMPLEMENT SR-2 TERMINUS IMPROVEMENTS AT GLENDALE BLVD AND SR-2	CITY OF LOS ANGELES
MIXED FLOW	U1M0778	5	I-5			SB I-5 BETWEEN SR-14 FREEWAY AND I-210 FREEWAY WIDEN THE TRUCK ROUTE TO ADD A THIRD TRUCK LANE AND EXTEND THE TRUCK ROUTE TO I-405.	CITY OF LOS ANGELES
MIXED FLOW	U1M0779	5	I-5			SB FROM DITMAN AVE TO CALZONA ST. CONSTRUCT SB AUXILIARY LANE ON I-5 FROM DITMAN AVE TO CALZONA ST	TBD
MIXED FLOW	U1M0701	10	I-10	SR-110	I-405	FREEWAY CORRIDOR IMPROVEMENTS	CITY OF LOS ANGELES
MIXED FLOW	U1M0702	101	US-101	VALLEY CIRCLE BLVD.	EAST L.A. INTERCHANGE	FREEWAY CORRIDOR IMPROVEMENTS	CITY OF LOS ANGELES
MIXED FLOW	U1M0741	101	US-101	ALVARADO ST.	I-10/SR-110 I/C	US-101 BYPASS TUNNEL AT ALVARADO ST. TO I-10/SR-110 NTERCHANGE	CITY OF LOS ANGELES
MIXED FLOW	U1M0710	110	I-110	I-10	US-101	FREEWAY CORRIDOR IMPROVEMENTS	CITY OF LOS ANGELES
MIXED FLOW	U1M0709	210	I-210	HUBBARD	OSBORNE	FREEWAY CORRIDOR IMPROVEMENTS	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
MIXED FLOW	U1M0705	405	I-405	US-118	I-105	FREEWAY CORRIDOR IMPROVEMENTS	CITY OF LOS ANGELES
MIXED FLOW	U1M0738	405	I-405	US-101	I-105	TUNNEL UNDER I-405 BETWEEN US-101 AND I-105	CITY OF LOS ANGELES
MIXED FLOW	U1M0708	710	I-710	SR-47	I-210	FREEWAY CORRIDOR IMPROVEMENTS	CITY OF LOS ANGELES
MIXED FLOW	U1M0707	10 /101/ 110	I-10 / US-101 / SR-110			DOWNTOWN L.A. FREEWAY CORRIDOR IMPORVEMENTS (I-10, US-101 & SR-110)	CITY OF LOS ANGELES
NON-MOTOR-IZED	U100701	0	US-101			DECKING OVER 101 FWY BETWEEN BRONSON AVE AND VERMONT AVE FOR PEDESTRIAN LINKAGE AND OPEN SPACE	CITY OF LOS ANGELES
OPERATIONAL	U100702	10	I-10			CORRIDOR-WIDE EXPANSION OF FREEWAY SERVICE PATROL	CITY OF LOS ANGELES
TDM	U100703	0	CITYWIDE			RESTRIPE VARIOUS ARTERIALS FOR TURN POCKETS AND ADDITIONAL LANES. ARTERIAL RECONFIGURATION TO FACILITATE DIRECTIONAL FLOW SUCH AS REVERSIBLE LANES.	CITY OF LOS ANGELES
TDM	U100704	0	CITYWIDE			CREATE A TRANSPORTATION MANAGEMENT ASSOCIATION TO CHAMPION TDM PROGRAMS	CITY OF LOS ANGELES
TDM	U100705	0	CITYWIDE			ADD/EXPAND PARK-AND-RIDE FACILITIES	CITY OF LOS ANGELES
TDM	U100706	0	CITYWIDE			ENHANCE/EXPAND/COORDINATE PEDESTRIAN, BICYCLE, AND TRANSIT INFORMATION AND AMENITIES	CITY OF LOS ANGELES
TRANSIT - BRT	U1TR0701	0	ORANGE LINE EXTENSION			EXTEND THE NEW VALLEY ORANGE LINE BUSWAY TO BURBANK	CITY OF LOS ANGELES
TRANSIT - BRT	U1TR0702	0	RAPID BUS			ADD MORE RAPID BUS CORRIDORS	CITY OF LOS ANGELES
TRANSIT - BUS	U1TR0706	0	DASH EXPANSION			10 NEW DASH ROUTES CITYWIDE	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
TRANSIT - BUS	U1TR0707	0	N/S BUSWAY			ADD PLANNED NORTH-SOUTH BUSWAY PROJECT	CITY OF LOS ANGELES
TRANSIT - BUS	U1TR0708	0	TRANSIT SERVICE			VARIOUS LOCATIONS TO BE DETERMINED. INCREASE TRANSIT SERVICES THROUGHOUT THE I-5 CORRIDOR	CITY OF LOS ANGELES
TRANSIT - BUS	U1TR0709	0	US -101			ADD LOCAL COMMUNITY TRANSIT SERVICE CONNECTIONS TO RED LINE STATIONS BTWN US-101/SR-134/SR-170 INTERCHANGE AND DOWNTOWN LA: HOLLYWOOD/WESTERN (2 ROUTES), VERMONT/ SANTA MONICA/LACC (3 ROUTES), VERMONT/BEVERLY (6 ROUTES), WESTLAKE/MACARTHUR PARK (3 ROUTES)	CITY OF LOS ANGELES
TRANSIT - BUS	U1TR0710	0	TRANSIT SERVICE			SR-1 TO I-5 PARALLEL TO I-10. IMPROVED TRANSIT SERVICES BY INCREASING FREQUENCY, SIGNAL PRIORITY, DEDICATED TRANSIT LANES AND HIGH-CAPACITY BUSES	TBD
TRANSIT - COMMUTER RAIL	U1TR0704	0	SANTA PAULA BRANCH LINE	US-101	LOS ANGELES COUNTY LINE	BRING TRACK TO CLASS 4 STANDARDS AND RECONSTRUCT TRACK BETWEEN PIRU AND LOS ANGELES COUNTY LINE"	TBD
TRANSIT - COMMUTER RAIL	U1TR0711	0	METROLINK SERVICE			VARIOUS LOCATIONS TO BE DETERMINED. EXPAND METROLINK SERVICE AND CAPACITY ON EXISTING TRAINS	TBD
TRANSIT - COMMUTER RAIL	U1TR0712	0	METROLINK			INCREASE METROLINK SERVICES B/W MOORPARK AND UNION STATION	CITY OF LOS ANGELES
TRANSIT - HEAVY RAIL	U1TR0703	0	METRO PURPLE LINE WESTSIDE EXTENSION	LA CIENEGA BLVD.	SANTA MONICA	METRO PURPLE LINE EXTENSION - CENTURY CITY (LA CIENEGA TO CENTURY & CENTURY CITY TO SANTA MONICA SEGMENTS)	METRO
TRANSIT - INTERMODAL	U1TR0719	0	REGIONAL TRANSIT CENTER	AT CRENSHAW BLVD. AND DEL AMO BLVD.		CITY OF TORRANCE REGIONAL TRANSIT CENTER (RTC)	TORRANCE
TRANSIT - LIGHT RAIL	U1TR0713	0	FLORENCE AVE / BNSF			BUILD RAIL TO CONNECT HARBOR AND CRENSHAW CORRIDORS TO LAX UTILIZING EXISTING BNSF RAIL LINE	CITY OF LOS ANGELES
TRANSIT - LIGHT RAIL	U1TR0714	0	GREEN LINE			EXTEND GREEN LINE FROM LAX TO CITY OF SANTA MONICA	CITY OF LOS ANGELES
TRANSIT - LIGHT RAIL	U1TR0715	0	TRANSIT SERVICE			BUILD RAIL CONNECTION FROM LAX TO SYLMAR ALONG 405 FWY	CITY OF LOS ANGELES

LOS ANGELES COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
TRANSIT - LIGHT RAIL	U1TR0716	0	RED LINE			EXTEND RED LINE FROM N. HOLLYWOOD TO SYLMAR	CITY OF LOS ANGELES
TRANSIT - LIGHT RAIL	U1TR0717	0	EAST LA CORRIDOR			EASTSIDE GOLD LINE -EXTEND FROM ATLANTIC TO NORWALK/ WHITTIER	TBD
TRANSIT - LIGHT RAIL	U1TR0718	0	VERMONT CORRIDOR			METRO GREEN LINE - I-105 TO HOLLYWOOD BLVD ALONG VERMONT AVE	TBD

ORANGE COUNTY STRATEGIC PLAN PROJECTS

ORANGE COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
TRANSIT - LIGHT RAIL	U2TR0701	0	ARTIC-PLATINUM TRIANGLE-ANAHEIM RESORT CONNECTOR	ARTIC	ANAHEIM RESORT DISTRICT	ELEVATED FIXED-GUIDEWAY SYSTEM CONNECTING THE ANAHEIM REGIONAL TRANSPORTATION INTERMODAL CENTER (ARTIC), THE PLATINUM TRIANGLE, AND THE ANAHEIM RESORT	CITY OF ANAHEIM

RIVERSIDE COUNTY STRATEGIC PLAN PROJECTS

RIVERSIDE COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
MIXED FLOW	U3M0701	91	SR-91	BUCHANAN STREET		REPLACE BOTH BRIDGES.	TBD
MIXED FLOW	U3M0702	215	I-215	EL CERRITO DRIVE BRIDGE		REPLACE WB BRIDGE.	TBD
MIXED FLOW	U3M0703	215	I-215	BOX SPRING		REPLACE WB BRIDGE.	TBD
MIXED FLOW	U3M0704	215	I-215	SB I-215	EB SR-60	REPLACE SB BRIDGE.	TBD
O&M	U3O0701	0	BLYTHE LINE	RICE	RIPLEY	TRACK REHABILITATION FOR BLYTHE LINE OF THE ARIZONA CALIFORNIA RAILROAD	TBD
TRUCK CLIMBING	U3TK0701	10	EASTBOUND I-10	CHIRIACO SUMMIT AND BLYTHE AREAS		EASTBOUND TRUCK CLIMBING LANES	TBD

SAN BERNARDINO COUNTY STRATEGIC PLAN PROJECTS

SAN BERNARDINO COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
AUXILIARY	U4MF07032	83	SR-83	PINE AVE (1.88)	KIMBALL AVE (2.92)	WIDEN & IMPROVE 3 INTERSECTIONS (EA:0G470)	CALTRANS
IC/RAMPS	U4MF07027	15	I-15	AT OLD HIGHWAY 58 IC (76.0)	FUTURE SANTA FE DR (77.5)	RECONSTRUCT INTERCHANGE (EA:47160)	CALTRANS
IC/RAMPS	U4MF07028	215	I-215	BARTON ROAD IC (0.8)	TO (1.8)	RECONSTRUCT INTERCHANGE (EA:0J070)	CALTRANS
MIXED FLOW	U4MF07005	15	I-15	BEAR VALLEY CUTOFF		INTERCHANGE	CALTRANS
MIXED FLOW	U4MF07026	15	I-15	JCT RTE 40 (74.9)	0.3 MI SOUTH OF SOAP MINE RD (75.7)	WIDEN TO 6 LANES (EA:35080)	CALTRANS
MIXED FLOW	U4MF07001	18	SR-18 AND SR-330	VARIOUS LOCATIONS, SR-18 (PM31.9 TO 42.35), SR-330 (PM30.63 TO 44.11)		SR-18 INTERSECTION IMPROVEMENT AT SR-330, REALIGNMENT (E/O GREEN VALLEY LAKE RD), OFF-STREET PARKING; SR-330 ADD RIGHT TURN INTO RUNNING SPRINGS; SR-18 ADD 1 LANE (DIR?) PM39-40.86, PM41.75-42.35; SR-330 ADD 1 LANE (DIR?) PM30.63-31.48, 32.03-32.76, 33.38-36.07, 36.5-37.75, 37.61-40.76	CALTRANS
MIXED FLOW	U4MF07020	38	SR-38	GREEN CANYON RD (45.7)	S. JCT RTE 18 (49.5)	ADD TWO LANES (EA:33990)	CALTRANS
MIXED FLOW	U4MF07021	38	SR-38	RTE 10 (0.0)	BRYANT ST (8.5)	ADD TWO LANES (EA:34710)	CALTRANS
MIXED FLOW	U4MF07006	60	SR-60	PIPELINE AVE		REPLACE ONE BRIDGE.	CALTRANS
MIXED FLOW	U4MF07007	60	SR-60	MONTE VISTA AVE		REPLACE EB BRIDGE.	CALTRANS
MIXED FLOW	U4MF07031	83	SR-83	BETWEEN JCT 71 (0.0)	JCT. SR-60 (7.2)	STUDY FOR NEW CORRIDOR	CALTRANS

SAN BERNARDINO COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
MIXED FLOW	U4MF07008	215	I-215	GRAND TERRACE R/R UNDER PASS		REPLACE BOTH BRIDGES.	CALTRANS
MIXED FLOW	U4MF07009	215	I-215	5TH STREET		REPLACE NB BRIDGE.	CALTRANS
MIXED FLOW	U4MF07010	215	I-215	NEWPORT AVE		REPLACE BOTH BRIDGES.	CALTRANS
MIXED FLOW	U4MF07011	215	I-215	WASHINGTON/ MT. VERNON		REPLACE BOTH BRIDGES.	CALTRANS
MIXED FLOW	U4MF07012	215	I-215	HIGH GROVE R/R UNDERPASS		REPLACE BOTH BRIDGES.	CALTRANS
MIXED FLOW	U4MF07003	395	US-395	0.6 MI N/O DESERT FLOWER RD	0.5 MI S/O FARMINGTON RD	6-LANE HIGHWAY	CALTRANS
MIXED FLOW	U4MF07004	395	US-395	0.5 MI S/O FARMINGTON RD	KERN CO LINE	6-LANE HIGHWAY	CALTRANS
OTHER	U407013	0	AERIAL TRAMWAY	SAN BERNARDINO/ HIGHLAND AREA	BIG BEAR LAKE AREA	AERIAL TRAMWAY	TBD
OTHER	U407024	0	999	LUMP SUM AT VARIOUS LOCATIONS IN SAN BERNARDINO COUNTY		SOUNDWALL PROJECTS (NON CAPACITY TYPE PROJECTS ONLY AND ELIGIBLE FOR ALL FEDERAL OR STATE FUNDS)	CALTRANS
TRANSIT - BRT	U4TR07035	0	BRT: FOOTHILL BLVD EAST	FONTANA	SAN BERNARDINO	THIS WILL INCLUDE MAJOR INVESTMENT STUDY, ENVIRONMENTAL, PRELIMINARY ENGINEERING, FINAL DESIGN AND CONSTRUCTION	OMNITRANS
TRANSIT - BRT	U4TR07036	0	BRT: FOOTHILL BLVD WEST	FONTANA	MONTCLAIR	THIS WILL INCLUDE MAJOR INVESTMENT STUDY, ENVIRONMENTAL, PRELIMINARY ENGINEERING, FINAL DESIGN AND CONSTRUCTION	OMNITRANS
TRANSIT - BRT	U4TR07037	0	BRT: MOUNTAIN/EUCLID AVENUES	UPLAND	CHINO	THIS WILL INCLUDE MAJOR INVESTMENT STUDY, ENVIRONMENTAL, PRELIMINARY ENGINEERING, FINAL DESIGN AND CONSTRUCTION	OMNITRANS
TRANSIT - BRT	U4TR07038	0	BRT: SAN BERNARDINO AVENUE	ONTARIO MILLS	FONTANA	THIS WILL INCLUDE MAJOR INVESTMENT STUDY, ENVIRONMENTAL, PRELIMINARY ENGINEERING, FINAL DESIGN AND CONSTRUCTION	OMNITRANS

SAN BERNARDINO COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
TRANSIT - BRT	U4TR07039	0	BRT: HOLT AVENUE/4TH STREET	POMONA	FONTANA	THIS WILL INCLUDE MAJOR INVESTMENT STUDY, ENVIRONMENTAL, PRELIMINARY ENGINEERING, FINAL DESIGN AND CONSTRUCTION	OMNITRANS
TRANSIT - BRT	U4TR07040	0	GRAND/EDISON AVENUES	HOV INTERCHANGE @ SR 60/91	CHINO	THIS WILL INCLUDE MAJOR INVESTMENT STUDY, ENVIRONMENTAL, PRELIMINARY ENGINEERING, FINAL DESIGN AND CONSTRUCTION	OMNITRANS
TRANSIT - COMMUTER RAIL	U4TR07014	0	METROLINK COMMUTER RAIL			ADDITIONAL METROLINK EXPANSION	TBD
TRUCK CLIMBING	U4TK07016	15	I-15	E. MAIN ST.	CALICO GHOST TOWN RD	SOUTHBOUND TRUCK CLIMBING LANE	CALTRANS
TRUCK CLIMBING	U4TK07017	15	I-15	BAKER	CIMA RD	SOUTHBOUND TRUCK DESCENDING LANE	CALTRANS
TRUCK CLIMBING	U4TK07018	15	I-15	NEVADA STATE LINE ALTERNATE	CAJON SUMMIT	COMMERCIAL VEHICLE ENFORCEMENT FACILITY	CALTRANS
TRUCK CLIMBING	U4TK07022	15	I-15	.2 MI N/O BIRD DITCH WASH BR	0.05 MI N/O AFTON CNY RD. OC	EXTEND SB TRUCK CLIMBING LANE (EA:0E720)	CALTRANS
TRUCK CLIMBING	U4TK07023	15	I-15	WHEATON SPRINGS-BAILY ROAD	YATES WELL RD	NORTHBOUND TRUCK DESCENDING LANE	CALTRANS
TRUCK CLIMBING	U4TK07019	40	I-40	IN NEEDLES		TRUCK WEIGH STATION	CALTRANS

VENTURA COUNTY STRATEGIC PLAN PROJECTS

VENTURA COUNTY STRATEGIC PLAN PROJECTS							
CATEGORY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	LEAD AGENCY
GRADE SEPARATION	U5M07012	0	ROSE AVE	AT SR-34 (E. FIFTH ST)		CONSTRUCT 4 LANE GRADE SEPARATION WITH LEFT TURN POCKETS	TBD
GRADE SEPARATION	U5M07013	0	SR-118			GRADE SEPARATION IN VENTURA COUNTY	TBD
IC/RAMPS	U5M0705	126	SR-126	WITHIN CITY OF VENTURA		CONSTRUCT NEW SOUTHBOUND TO US-101 CONNECTOR	SAN BUENAVENTURA
MIXED FLOW	U5M0704	23	SR-23	SR-23/SR-118	WALNUT CANYON	NEW ALIGNMENT	MOORPARK
MIXED FLOW	U5M0706	23	SR-23	SR-118	SR-126	FREEWAY: MIXED FLOW	CALTRANS
MIXED FLOW	U5M0711	33	SR-33 (CASITAS BYPASS)	FOSTER PARK	CREEK RD	EXPRESSWAY	CALTRANS
MIXED FLOW	U5M0707	34	SR-34	SR-1	SR-118	WIDEN CONVENTIONAL HIGHWAY FROM 1 TO 2 LANES EACH DIRECTION (CALTRANS DISTRICT 7 DRAFT TRANSPORTATION CONCEPT REPORT FOR SR-34, OCTOBER 2003)	CALTRANS
MIXED FLOW	U5M0701	101	US-101	LOS ANGELES COUNTY LINE	SR-33	ADD 1 LANE EACH DIRECTION, INTERCHANGE AND RAMP IMPROVEMENTS, ITS	CALTRANS
MIXED FLOW	U5M0702	101	US-101	SR-33	MUSSEL SHOAL	ADD 1 LANE EACH DIRECTION (REMAINS CONVENTIONAL HIGHWAY)	CALTRANS
MIXED FLOW	U5M0708	118	SR-118	SR-23	SR-232	FREEWAY: MIXED FLOW	CALTRANS
MIXED FLOW	U5M0709	118	SR-118	SR-232	SR-126	FREEWAY: MIXED FLOW	CALTRANS
MIXED FLOW	U5M0703	126	SR-126	WITHIN CITY LIMITS OF FILLMORE		ADD 1 LANE EACH DIRECTION	CALTRANS
MIXED FLOW	U5M0710	232	SR-232	SR-118	US-101	FREEWAY: MIXED FLOW	CALTRANS

REGIONAL STRATEGIC PLAN PROJECTS

REGIONAL STRATEGIC PLAN PROJECTS							
Category	Rtp Id	Route #	Route Name	From	to	Description	Lead Agency
HSRT - PASSENGER	UHSRT0701	0	HSRT	LAX	ORANGE COUNTY	HIGH SPEED REGIONAL TRANSPORT (HSRT): LONG TERM SYSTEM SEGMENT: LAX TO ORANGE COUNTY	TBD
HSRT - PASSENGER	UHSRT0702	0	HSRT	LAX	PALMDALE	HIGH SPEED REGIONAL TRANSPORT (HSRT): LONG TERM SYSTEM SEGMENTS: LAX TO PALMDALE	TBD
HSRT - PASSENGER	UHSRT0703	0	HSRT	PALMDALE	VICTORVILLE	HIGH SPEED REGIONAL TRANSPORT (HSRT): LONG TERM SYSTEM SEGMENTS: PALMDALE TO VICTORVILLE	TBD
HSRT - PASSENGER	UHSRT0704	0	HSRT	SAN BERNARDINO	COACHELLA VALLEY	HIGH SPEED REGIONAL TRANSPORT (HSRT): LONG TERM SYSTEM SEGMENTS: SAN BERNARDINO TO COACHELLA VALLEY (INCLUDING PALM SPRINGS AIRPORT)	TBD
HSRT - PASSENGER	UHSRT0705	0	HSRT	COACHELLA VALLEY	IMPERIAL	HIGH SPEED REGIONAL TRANSPORT (HSRT): LONG TERM SYSTEM SEGMENTS: COACHELLA VALLEY (INCLUDING PALM SPRINGS AIRPORT) TO IMPERIAL	TBD
HSRT - PASSENGER	UHSRT0706	0	HSRT	SAN BERNARDINO	SAN DIEGO	HIGH SPEED REGIONAL TRANSPORT (HSRT): LONG TERM SYSTEM SEGMENTS: SAN BERNARDINO TO SAN DIEGO	TBD
HSRT - PASSENGER	UHSRT0707	0	HSRT	ONTARIO AIRPORT	NEVADA STATE LINE	HIGH SPEED REGIONAL TRANSPORT (HSRT): CALIFORNIA-NEVADA MAGLEV (CALIFORNIA-NEVADA SUPERSPEED TRAIN COMMISSION) - ONTARIO AIRPORT TO NV STATE LINE	TBD
HSRT - PASSENGER	UHSRT0708	0	HIGH SPEED RAIL	REGIONWIDE		HIGH SPEED REGIONAL TRANSPORT (HSRT): CALIFORNIA HIGH-SPEED RAIL AUTHORITY (SERVING THE SCAG REGION NOT INCLUDING ANAHEIM TO UNION STATION SEGMENT IN CONSTRAINED PLAN)	TBD
HSRT - PASSENGER	UHSRT0709	0	ORANGELINE HIGH-SPEED TRANSIT	ORANGE COUNTY	PALMDALE	ORANGELINE SEGMENT ON PACIFIC ELECTRIC ROW (ORANGE COUNTY - UNION STATION - SANTA CLARITA - PALMDALE)	TBD
TOLL	U3T0701	0	CETAP - RIVERSIDE COUNTY TO ORANGE COUNTY	WESTERN RIVERSIDE COUNTY	ORANGE COUNTY	CETAP - RIVERSIDE COUNTY TO ORANGE COUNTY - CONSTRUCT NEW INTERCOUNTY TRANSPORTATION CORRIDOR B - 2 TOLL EACH DIR ON NEW FACILITY FROM I-15/MID-COUNTY PKWY TO SR-241/SR-133	TBD
TOLL	1T0401	101	US-101	SR-23	SR-134/SR-170	FROM SR-23 IN VENTURA TO TO SR-134/SR-170 IN LA ADD 2 HOT LANES IN EACH DIRECTION	TBD

REGIONAL STRATEGIC PLAN PROJECTS							
Category	Rtp Id	Route #	Route Name	From	to	Description	Lead Agency
TRANSIT - COMMUTER RAIL	MTRLNK0701	0	METROLINK STRATEGIC PLAN			METROLINK STRATEGIC PLAN - INVESTMENTS IN ADDITIONAL TRACK CAPACITY, SIGNALING, STATION CAPACITY, CARS, LOCOMOTIVES, SUPPORT FACILITIES, AND NEW SERVICE LEVELS TO MAXIMIZE RIDERSHIP POTENTIAL	TBD
TRANSIT - LIGHT RAIL	U1TR0705	0	METRO RAIL GOLD LINE EXTENSION	MONTCLAIR	ONTARIO AIRPORT	METRO RAIL GOLD LINE EXTENSION-SEGMENT 3 MONTCLAIR STATION TO ONTARIO AIRPORT LRT EXTENSION.	TBD
TRANSIT - OTHER	LOSSAN0701	0	LOSSAN STRATEGIC PLAN			LOSSAN STRATEGIC PLAN: SYSTEMIC CAPACITY AND SERVICE IMPROVEMENTS ON THE LOSSAN RAIL INTERCITY RAIL CORRIDOR	TBD
TRUCK TOLL LANES	UTK0701	15	I-15	EAST-WEST CORRIDOR CONNECTING THE PORTS OF LA/LB TO AND THROUGH THE INLAND EMPIRE	BARSTOW	DEDICATED LANES FOR CLEAN TECHNOLOGY TRUCKS	TBD
TRUCK TOLL LANES	UTK0702	TBD	EAST-WEST CORRIDOR CONNECTING THE PORTS OF LA/LB TO AND THROUGH THE INLAND EMPIRE	I-710	I-15	DEDICATED LANES FOR CLEAN TECHNOLOGY TRUCKS	TBD



SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2008
RTP REGIONAL TRANSPORTATION PLAN

Making the Connections

Growth Forecast Report

GROWTH FORECAST

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Integrated Growth Forecast

In February 2005, SCAG initiated the 2008 RTP Growth Forecast Update Process, now known as the 2008 "Integrated Growth Forecasting" process. The resulting Integrated Growth Forecast established the population, employment, households and housing units forecasted in the region for use in both the RTP and the state-mandated Regional Housing Needs Assessment completed in July 2007. SCAG's Plans & Programs Technical Advisory Committee assisted in the process by providing technical input. Policy Committees of the Regional Council were periodically informed of progress and provided additional direction to the process.

The Integrated Growth Forecast sets the optimal stage for a future regional growth scenario as it ties housing to transportation planning, considering both needs simultaneously in communities throughout the region. This approach ensures that the resulting assumptions are consistent with planned transportation infrastructure. Based on a combination of recent and past trends, reasonable key technical assumptions, and existing and new local policy options, the Integrated Growth Forecast provides the basis for developing the land use assumptions at the regional and small area levels which build the Plan Alternative.

Development of the Integrated Growth Forecast

Development of the Integrated Growth Forecast involved several steps. The first entailed an analysis of recent regional growth trends and the collection of significant local plan updates. A variety of large area estimates and projections were collected from the federal and state governments. The sources included information from the following agencies:

- U.S. Department of Commerce, Census Bureau and Bureau of Economic Analysis,
- U.S. Department of Labor, Bureau of Labor Statistics,
- U.S. Internal Revenue Service (IRS),
- U.S. Citizenship and Immigration Services,
- U.S. Department of Health and Human Services,
- California Department of Finance (DOF),
- California Employment Development Department,
- Information received through the Intergovernmental Review process, and
- Small area estimates and projections were also available from aerial land use data, data from ES202, CTPP, general plan, parcel level data from tax assessor's office, building permits from Construction Industry Research Board and demolition data from the DOF.

Next was the review and update of the 2004 regional growth forecast methodology and key assumptions used as part of SCAG's 2004 Regional Transportation Plan. The widely used methodology included the cohort-component and shift-share methods. The key technical assumptions included updates regarding the fertility rate, mortality rate, net immigration, domestic in-migration, domestic out-migration, labor force participation rates, double jobbing rates, unemployment rates, and headship rates.

The next step was to develop and evaluate the draft regional Integrated Growth Forecast scenarios with small area distributions. Regional growth forecast scenarios were developed and allocated into the smaller geographic levels using public workshops. The small area distributions of the regional growth were evaluated using transportation and emission modeling results and environmental impact review.

Last was the selection and adoption of a preferred regional growth forecast and small area distributions.

An organized forecasting decision making process is required to develop a consensus regional growth forecast in an efficient, open, and fair manner. Various forms of input were used in the forecasting process, including a panel of experts, subregional/local review, stakeholders/data users, public outreach,

technical committee, policy committee, and the Regional Council. Steps included:

1. Survey of local jurisdictions regarding recent changes in general plan and developments that could affect the long-term growth patters envisioned in the 2004 RTP/Growth Vision policy forecast.
2. Provision to Transportation Modelers of the extended Year 2000 socioeconomic data set for new model development and calibration.
3. Collaboration with subregions/local jurisdictions, review and revision of the 2003 base year small area distribution of employment, population, and household, and completion/delivery of the 2003 extended socioeconomic data set to Modeling Division.
4. Request and receipt of input from subregions regarding their perspectives of future growth in population, employment and household.
5. Review and presentation of recent trends in population, employment and household growth and completion of preliminary 2008 RTP no-project growth forecasts at regional, county, subregion levels.

During 2006, the following major milestones were accomplished for the 2008 Integrated Growth Forecasting process:

- January 2006: Convened the Panel of Experts to review and comment on 2008 RTP growth forecast at regional/county/subregion level.
- February 2006: Counties/subregions and local jurisdictions were invited to present their perspectives on growth and any pertinent growth issues to SCAG staff and the Panel of Experts.
- March – August 2006: Presented the updated 2008 RTP growth forecasts at region and county levels to the Plans & Programs Technical Advisory Committees and Panel of Experts.
- September 14, 2006: CEHD approved and directed staff to proceed with the disaggregation of the draft 2008 integrated regional/county forecasts into smaller geographic levels and scheduling of subregion/local jurisdiction workshops and inputs process.
- October – January 2007: Completed 15 subregional workshops, including interactive exercise of 2035 growth scenarios, and RHNA exercise 2005-2014 at which AB 2158 factors forms filled out.
  - Formal and informal comments were received
  - Follow-up meetings with local subregions/jurisdictions.

Growth Forecast Methodology and Assumptions

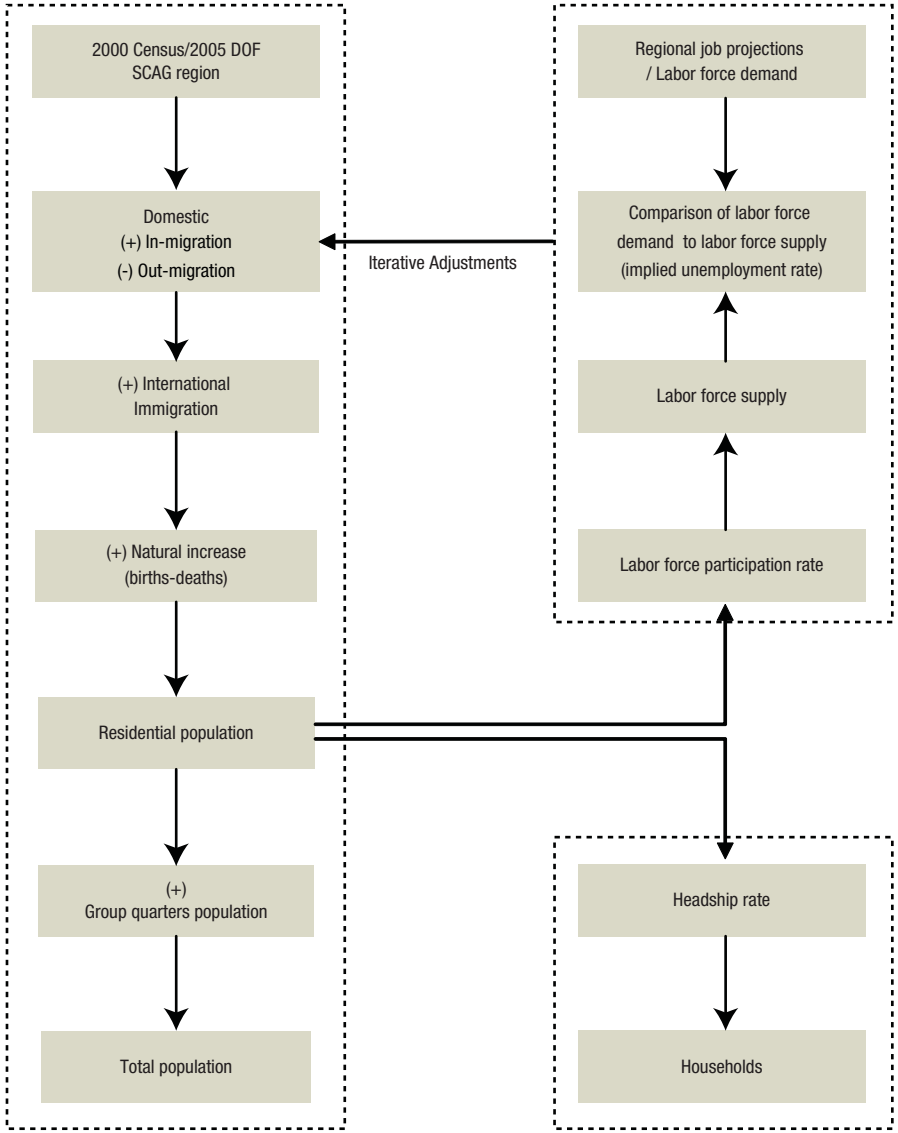
This section describes the detailed methodology and key assumptions for the SCAG regional baseline demographic and employment forecast at four levels of geography (e.g. SCAG region, county, city, and census tract/transportation analysis zone).

DEMOGRAPHIC FORECAST METHODOLOGY AND ASSUMPTIONS

REGIONAL POPULATION PROJECTION

Figure A1 shows the linkage of population, households, and employment in the regional demographic forecast process. These three major variables are projected by reflecting the reasonable relationships among them. Demographic rates are used to link these major variables, including headship rate, labor force participation rate, implied unemployment rate, and domestic migration rate.

FIGURE A1 REGIONAL DEMOGRAPHIC FORECAST PROCESS



Cohort-Component Model

SCAG projects regional population using the cohort-component model. The model computes the population at a future point in time by adding to the existing population the number of group quarters population, births and persons moving into the region during a projection period, and by subtracting the number of deaths and the number of persons moving out of the region. This process is formalized in the demographic balancing equation. The following balancing equation is prepared using year t_0 and year t_1

$$POP_{t_1}^{region} = POP_{t_0}^{region} + Q_{t_0-t_1}^{region} + B_{t_0-t_1}^{region} - D_{t_0-t_1}^{region} + NETMIG_{t_0-t_1}^{region}$$

where

$POP_{t_1}^{region}$ = total population at the future year t_1

$POP_{t_0}^{region}$ = total population at the base year t_0

$Q_{t_0-t_1}^{region}$ = the number of group quarters population that occur during the interval t_0 - t_1

$B_{t_0-t_1}^{region}$ = the number of births that occur during the interval t_0 - t_1

$D_{t_0-t_1}^{region}$ = the number of deaths that occur during the interval t_0 - t_1

$NETMIG_{t_0-t_1}^{region}$ = the amount of net migration that occurs during the interval t_0 - t_1

The following is a description of how components of population change are projected. Two time periods: 2005 and 2010 are used as an example.

Group quarters population

$$Q_{t_{2010}}^{region} = RES_{t_{2010}}^{region} * CGQR_{t_{2000}}^{region}$$

where

$Q_{t_{2010}}^{region}$ = group quarters population in 2010.

$RES^{region}_{t_{2010}}$ = regional civilian resident population in 2010

$CGQR^{region}_{t_{2000}}$ = the ratio of group quarters population to total population from 2000 census

Births

$$B^{region}_{t_{2005-2010}} = BASEFEM^{region}_{t_{2005-2010}} * FERTR^{region}_{t_{2005-2010}}$$

where

$B^{region}_{t_{2000-2005}}$ = the number of births between 2005 and 2010

$BASEFEM^{region}_{t_{2005-2010}}$ = base female population represents the civilian resident female population, reflecting female immigrants, outmigrants, and immigrants, who belong to child bearing ages (10-49) for the period of 2005 and 2010

$FERTR^{region}_{t_{2005-2010}}$ = fertility rate between 2005 and 2010

Deaths (Survived Population)

$$D^{region}_{t_{2005-2010}} = BASEPOP^{region}_{t_{2005-2010}} * MORTALR^{region}_{t_{2005-2010}}$$

$$SURVR^{region}_{t_{2005-2010}} = 1 - MORTALR^{region}_{t_{2005-2010}}$$

$$S^{region}_{t_{2005-2010}} = BASEPOP^{region}_{t_{2005}} * SURVR^{region}_{t_{2005-2010}}$$

where

$D^{region}_{t_{2005-2010}}$ = deaths between 2005 and 2010

$MORTALR^{region}_{t_{2005-2010}}$ = life table mortality rate (qx) between 2005 and 2010

$SURVR^{region}_{t_{20005-2010}}$ = life table survival rate (1-qx) between 2005 and 2010

$S^{region}_{t_{2005-2010}}$ = survived population between 2005 and 2010

Net Migration

$$NETMIG^{region}_{t_{2005-2010}} = INMIG^{region}_{t_{2005-2010}} - OUTMIG^{region}_{t_{2005-2010}} + IMMIG^{region}_{t_{2005-2010}}$$

$$INMIG^{region}_{t_{2005-2010}} = BASEPOP^{\alpha}_{t_{2005-2010}} * INMIGR^{region}_{t_{2005-2010}}$$

$$OUTMIG^{region}_{t_{2005-2010}} = BASEPOP^{region}_{t_{2005-2010}} * OUTMIGR^{region}_{t_{2005-2010}}$$

$$IMMIG^{region}_{t_{2005-2010}} = (IMMIG^{region}_{t_{1990-2005}})/3$$

where

$NETMIG^{region}_{t_{2005-2010}}$ = net migrants between 2005 and 2010

$INMIG^{region}_{t_{2005-2010}}$ = domestic immigrants from other areas in the nation to the region between 2005 and 2010

$OUTMIG^{region}_{t_{2005-2010}}$ = domestic outmigrants from the region to other areas in the nation between 2005 and 2010

$IMMIG^{region}_{t_{2005-2010}}$ = international net immigrants (including legal and undocumented) to the region between 2005 and 2010

$INMIGR^{region}_{t_{2005-2010}}$ = domestic immigration rates measured in the ratio of domestic inmigrants between 2005 and 2010 to total US population in 2005

$OUTMIGR^{region}_{t_{2005-2010}}$ = domestic outmigration rates measured in the ratio of domestic outmigrants between 2005 and 2010 to total regional population in 2005

$IMMIG^{region}_{t_{1990-2005}}$ = international net immigrants (including legal and undocumented) to the region between 1990 and 2005

The fertility, mortality and migration rates are projected in five-year intervals for two sexes, eighteen age groups, and four mutually exclusive ethnic groups: Non-Hispanic White, Non-Hispanic Black, Non-Hispanic Asian/Others, and Hispanics. These demographic rates are also projected by population classes: residents (no-migrants), domestic migrants and international migrants.

Balance of Labor Force Demand and Labor Force Supply

SCAG links population dynamics to economic trends, based on the assumption that patterns of migration into and out of the region are influenced by the availability of jobs.[1]

The future labor force supply is computed from the population projection model by multiplying civilian resident population by projected labor force participation rates. It is formulated as follows:

$$LFS_{t_{2010}}^{region} = RES_{t_{2010}}^{region} * LFPR_{t_{2010}}^{region}$$

where

$LFS_{t_{2010}}^{region}$ = regional labor force supply in 2010

$RES_{t_{2010}}^{region}$ = regional civilian resident population in 2010

$LFPR_{t_{2010}}^{region}$ = regional labor force participation rate in 2010

This labor force supply is compared to the labor force demand based on the number of jobs projected using the shift-share economic model. The labor force demand is derived using a two-step process. The first step is to convert jobs into workers using the double job rate, which is measured by the proportion of workers holding two jobs or more to total workers.

$$WRKR_{t_{2010}}^{region} = JOB_{t_{2010}}^{region} (1 + DJR_{t_{2010}}^{region})$$

where

$WRKR_{t_{2010}}^{region}$ = regional workers in 2010

$JOB_{t_{2010}}^{region}$ = regional jobs in 2010

$DJR_{t_{2010}}^{region} = (JOB_{t_{2005}}^{region} / WRKR_{t_{2005}}^{region}) - 1$ = regional double job rate in 2010

The second step is to convert workers into labor force demand using the regional unemployment rate.

$$LFD_{t_{2010}}^{region} = WRKR_{t_{2010}}^{region} (1 - UNEMP_{t_{2010}}^{region})$$

where

$LFD_{t_{2010}}^{region}$ = regional labor force demand in 2010

$WRKR_{t_{2010}}^{region}$ = regional workers in 2010

$UNEMP_{t_{2010}}^{region}$ = regional unemployment rate in 2010

If any imbalance occurs between labor force demand and labor force supply, it is corrected by adjusting the domestic migration assumptions of the demographic projection model. The gross migration optimization technique[2] produces reasonable gross in-migration and out-migration assumptions by optimizing traditional adjustment factors used in the plus-minus method. The major advantage of the gross migration optimization technique is to immediately develop the size of in-migration and out-migration, while maintaining acceptable age and sex specific in-migration and out-migration schedules. Adjusted migration assumptions are followed by total population changes.

Key Regional Demographic Assumptions

Key demographic estimates and projections are updated since the 2004 RTP growth forecast. The US Census Bureau released interim projections of the U.S. and California State population by age, sex, race, and Hispanic origin in March-April 2004. The California Department of Finance has updated estimates of population and households and released population projections by race/ethnicity for California and its Counties 2000–2050 in May 2004.

Analyses of recent regional population and household trends from diverse statistical sources indicate declining fertility and mortality rates, leveled net immigration rates, fluctuating net domestic migration with economic cycles,

[1] George, M.V., Smith, S., Swanson, D., and Tayman, J. (2004). Population Projections. In D. Swanson and J. Siegel (eds.) *The Methods and Materials of Demography* (2nd ed.). San Diego: Academic Press. 584

[2] Choi, S., and Cho, K. (2007 April). *A Gross Migration Optimization Technique of Developing In- and Out-Migration Assumptions for Regional Population Projections*. Paper presented at the Annual Meeting of Population Association of America, New York.

and declining labor force participation and household headship rates. With additional regional assumptions of the constant double job rate (4.5%) and the implied regional unemployment rate (5%-7%), SCAG developed the demographic assumptions for the regional population and household projection.

Fertility

The total fertility rate is defined as the average number of children that would be born to a woman over her lifetime if she were to experience the exact current age-specific fertility rates (ASFRs) through her lifetime. It is obtained by summing the age-specific rates for a given time-point. Four race/ethnic female groups in Southern California show a lower fertility rate than that of US average of the specific race/ethnic group. 2000-2005 total fertility rates of NH White, NH Asian & Others, and Hispanic female groups were held constant to 2035. The Hispanic fertility rate is assumed to decline during the projection period following the projected fertility rate changes of U.S. projected middle series and interim projections.

TABLE A1 TOTAL FERTILITY BY RACE/ETHNICITY, 2000-2005 AND 2030-2035

Race/Ethnicity	2000-2005	2030-2035
NH White	1.6	1.6
NH Black	1.7	1.7
NH Asian & Others	1.4 (2.0*)	1.4 (2.0*)
Hispanic	2.5 (2.8*)	2.3 (2.5*)
Total	2.1	2.0

Note: female domestic migrants are based on the fertility rate assumption of base population (female no-migrants during the projection period). Female immigrants tend to have a higher fertility rate than female no-migrants of the specific race/ethnic groups. NH Asian & Others, and Hispanic female show a higher fertility rate than no-migrants, while NH White and NH Black female groups do not show a difference between no-migrants and immigrants.

Mortality

The region's life expectancy at birth improves at the same rate as the national rate as assumed by the US Census Bureau Middle-Series Projection and interim projections during the projection horizon. Population generally increases the life expectancy at birth by 6%-7% from 2000 to 2035.

TABLE A2 LIFE EXPECTANCY AT BIRTH BY SEX, 2000 AND 2035

Sex	2000	2035
Male	74.8	79.7
Female	80.5	85.4

Migration

International net immigration is determined using the annual average (125,000) from 1990-2005, including documented and undocumented immigrants. Domestic migration is influenced by labor demand, derived from regional employment forecasts. Race/ethnic distribution of domestic in-migrants and domestic out-migrants is determined by reflecting the changing share of the base race/ethnic population during the projection horizon. For example, the Hispanic population increases its share of domestic in- and out-migration during the projection horizon because of its increasing share of population in the region. The race/ethnic distribution of net immigration is derived using the average of 2000 Census estimates and 2005 Pew Hispanic Center Estimate, and is assumed to remain constant during the projection horizon. Age-sex composition of domestic and international migrants is based on the 2000 Census.

TABLE A3 RACE/ETHNIC DISTRIBUTION OF NET IMMIGRATION, 2000-2005 AND 2030-2035

Race/Ethnicity	2000-2005	2030-2035
NH White	11%	11%
NH Black	3%	3%
NH Asian & Others	19%	19%
Hispanic	68%	68%
Total	100%	100%

TABLE A4 RACE/ETHNIC DISTRIBUTION OF DOMESTIC IN-MIGRATION, 1995-2000 AND 2030-2035

Race/Ethnicity	1995-2000	2030-2035
NH White	55%	33%
NH Black	8%	8%
NH Asian & Others	16%	22%
Hispanic	21%	38%
Total	100%	100%

TABLE A5 RACE/ETHNIC DISTRIBUTION OF DOMESTIC OUT-MIGRATION, 1995-2000 AND 2030-2035

Race/Ethnicity	1995-2000	2030-2035
NH White	48%	35%
NH Black	7%	7%
NH Asian & Others	13%	16%
Hispanic	31%	43%
Total	100%	100%

Labor Force Participation

The 2035 labor force participation rate by age, sex, and race/ethnicity is determined by trending 2005 SCAG labor force participation rate with US BLS projected national labor force participation rate between 2005 and 2035. Assumptions were that Black/Asian/Hispanic female labor force participation rate would converge towards the White female labor force participation rate, and that the elderly population of 55 years old or more would show higher labor force participation rate over time due to lack of the skilled labor force associated with the retirement of baby boomers.

TABLE A6 LABOR FORCE PARTICIPATION RATE BY RACE/ETHNICITY, 2005 AND 2035

Race/Ethnicity	2005	2035
NH White	64%	58%
NH Black	59%	56%
NH Asian & Others	62%	58%
Hispanic	61%	58%
Total	62%	58%

REGIONAL HOUSEHOLD PROJECTION

Regional Household Projection Model

A household includes all the persons who occupy a housing unit as their usual place of residence. According to the US Census Bureau, the count of households or householders is the same as the count of occupied housing units for 100-percent tabulations. SCAG develops the estimates of 2005 total households by age, sex, and race/ ethnicity using the 2000 Census and California Department of Finance estimates of total households for January 1, 2005 and January 1, 2006.

Regional households are projected by using projected headship rate. The projected households at a future point in time are computed by multiplying the projected civilian resident population by projected headship rates. The following illustration describes how 2010 households are projected.

$$HHLD_{t_{2010}}^{region} = RES_{t_{2010}}^{region} * HEADR_{t_{2010}}^{region}$$

where

$HHLD_{t_{2010}}^{region}$ = regional households by age, sex, and ethnicity in 2010

$RES_{t_{2010}}^{region}$ = regional civilian resident population by age, sex, and race/ethnicity in 2010

$HEADR^{region}_{t_{2010}}$ = regional headship rates by age, sex, and race/ethnicity in 2010

Headship rate is the proportion of a population cohort that forms the household. It is specified by age, sex, and race/ethnicity. Headship rate is projected in 5 year intervals for each sex (male and female), seven age groups (for instance, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+), and four mutually exclusive ethnic groups.

Regional Headship Rate Assumptions

The SCAG regional household headship rates have declined from 46.7% in 1980, to 43.7% in 1990, to 43.1% in 2000, to 41.4% in 2005. The overall household headship rate in 2035 is expected to be 41%, slightly lower than that of 2005. The overall male household headship rate is assumed to decrease during the projection horizon, while the overall female household headship rate is assumed to increase. Asian and Others' household headship rate is assumed to converge towards the White household headship rate by 50 percent of the difference from the 2000 Census White headship rate. The Hispanic household headship rate is assumed to converge towards the White household headship rate by 25 percent of the difference from the 2000 Census White headship rate.

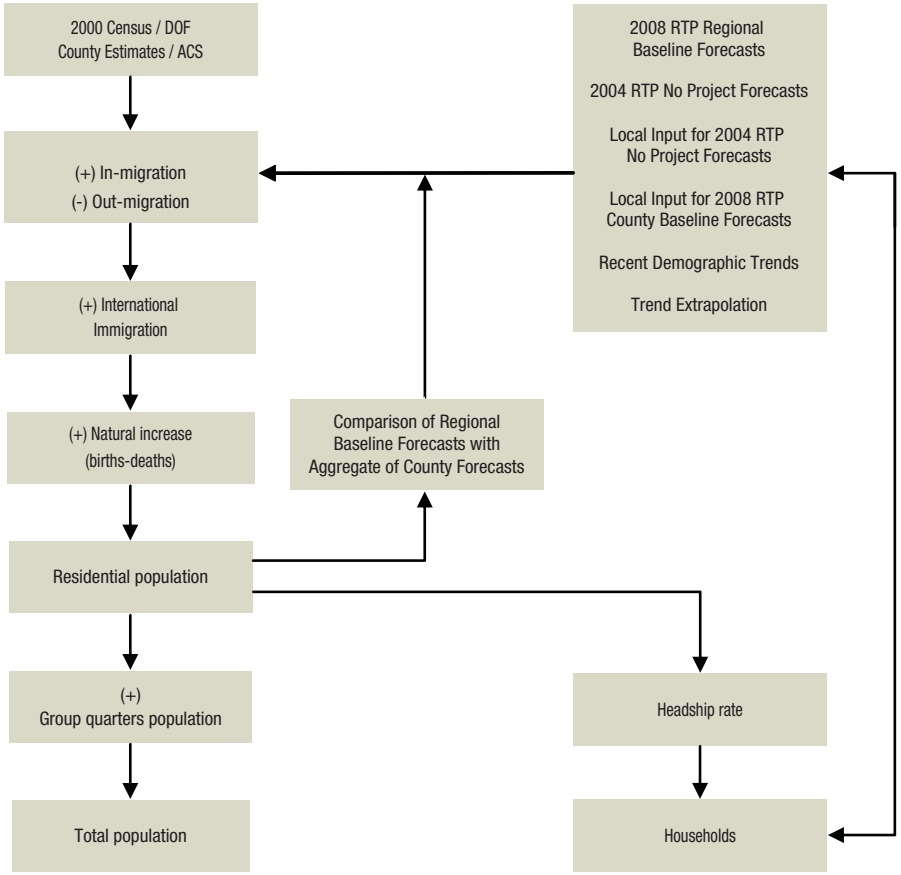
TABLE A7 HOUSEHOLD HEADSHIP RATE BY RACE/ETHNICITY, 2005 AND 2035

Race/Ethnicity	2005	2035
NH White	49%	49%
NH Black	47%	49%
NH Asian & Others	38%	41%
Hispanic	34%	36%
Total	41.4%	41.0%

COUNTY POPULATION AND HOUSEHOLD PROJECTION

Similar to the regional population and household projection, SCAG uses the cohort-component model and the headship rate to project the county population and households (see figure A2). The sum of county projections is compared to the regional independent projections. If results are significantly divergent, input data at the county level is adjusted to bring the sum of the counties projection and the regional independent projections more closely in line. Complete consistency between two projections is not mandatory. After analysis, the sum of counties constitutes the regional baseline projections.

FIGURE A2 COUNTY DEMOGRAPHIC FORECAST PROCESS



County Demographic Assumptions

Fertility and Mortality

If county birth rates by age and race/ethnicity are higher than the regional birth rates by age and race/ethnicity, then the county birth rates are converged towards regional birth rates by 100 percent in 2035. If county birth rates by age and race/ethnicity are lower than the regional birth rates by age and race/ethnicity, then the county birth rates are kept constant during the projection horizon. The regional survival rate by age, sex, and race/ethnicity is uniformly applied to all counties in the region.

Migration

International net immigration is determined using the annual average of international net immigration (1990-2005), including documented and undocumented immigrants. Domestic net migration, in particular, the county share of the regional domestic net migration, is determined by the historical trends of domestic net migration, projected regional domestic net migration, and subregional input. The race/ethnic distribution of domestic in- and out-migrants is developed by trending county distribution to projected race/ethnic change in the regional distribution. The race/ethnic distribution of net immigration is derived using the average of 2000 Census estimates and 2005 Pew Hispanic Center Estimate, and is assumed to remain constant during the projection horizon. Age-sex composition of domestic and international migrants is based on the 2000 Census.

The county migration model follows two regional modeling approaches: 1) cohort-component approach (birth, death, and net migration) and 2) two region gross migration model[3], but it emphasizes 1) the county allocation algorithm of net international and domestic migration instead of structural model, 2) the top-down approach. Net international and domestic migration by county is initially derived by allocating the regional net migration into counties using the historical trends (with different base periods). The derived net domestic migration is further disaggregated into in- and out-migration. The linkage of regional and county level migration projection modules are shown below (See figure 3A).[4]

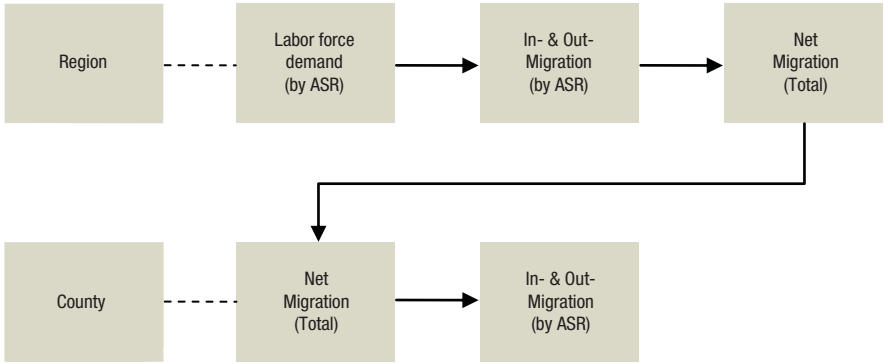
Headship rate

The county headship rate by age, sex, and race/ethnicity is developed by trending county headship rates in the base year to the projected rate change in the regional model.

[3] Isserman, A. (1993). *The Right People, The Right Rates: Making Population Estimates and Forecasts with an Interregional Cohort-Component Model. Journal of the American Planning Association*, 59, 45-64.

[4] Choi, S., and Cho, K. (2007 April). *A Gross Migration Optimization Technique of Developing In- and Out-Migration Assumptions for Regional Population Projections*. Paper presented at the Annual Meeting of Population Association of America, New York.

FIGURE A3 LINKAGE OF REGION AND COUNTY MIGRATION MODULES



Note: ASR = age, sex, and race/ethnicity

CITY POPULATION AND HOUSEHOLD PROJECTION

City Demographic Projection Model

The city level demographic projections are based on the housing unit method, which is one of the most widely used methods, to estimate local area households and population for planning purposes. The housing unit method consists of the following three projections of: households (occupied housing units), average household size, and group quarters population. Each of three components is projected into the future. The projected population in year t1 is expressed as follows:

$$POP_{t_1}^{city} = (HHLD_{t_1}^{city} * PPH_{t_1}^{city}) + Q_{t_1}^{ciity}$$

where

$POP_{t_1}^{city}$ = total population at the future year t_1

$HHLD_{t_1}^{city}$ = total households at the future year t_1

$PPH_{t_1}^{city}$ = the average persons per household at the future year t_1

$Q_{t_1}^{ciity}$ = the group quarters population at the future year t_1

The housing unit method is implemented in the following way.[5] First, households (occupied housing units) are projected by extrapolating the past trends of occupied housing units. The methodology for developing the occupied housing projection is a constrained extrapolation using stochastic simulation. It is found that the exponential provides the best fit to the historical data and provides the most plausible projection year values. Experimentation with the simulation also indicates that 10,000 simulated values produce stable projection estimates. The input data series can include up to 21 observations by combining information from the California Department of Finance E-5 series with enumeration-based values from the 1980, 1990, and 2000 censuses. The model parameters are estimated using the 21 observation series for each city.

Second, household (residential) population is estimated by multiplying occupied housing units (households) by the projected average household size. The average household size projection is problematic given the tension between expectations for a strong demographic component in the methodology and the lack of suitable data to support such a methodology. The so called 'state-of-the-art' for average household size projections tends to be very rudimentary at the city level.

Third, projected group quarters population is added to projected household population. The group quarters population is projected based on Year 2000 ratio of group quarters population to total population.

The preliminary projections of three components of the housing unit method are adjusted to control to the county projections. The housing unit method described above was originally applied to develop 2004 RTP city population and household trend projection. Once the city demographic trend projection is derived, diverse public outreach including local and subregional review and subregional workshops are used to reflect reasonable assumptions and acceptable trends.

[5] Sweeney, S. (2003). Population and Household Projection Methodology for Cities and Subregions. *Destination 2030 - Draft 2004 Regional Transportation Plan Technical Appendix*, Southern California Association of Governments, Los Angeles. Retrieved on March 10, 2008 http://www.scag.ca.gov/rtp2004/2004/techappendix/AppendixA_GrowthFore.pdf.

City Demographic Assumptions

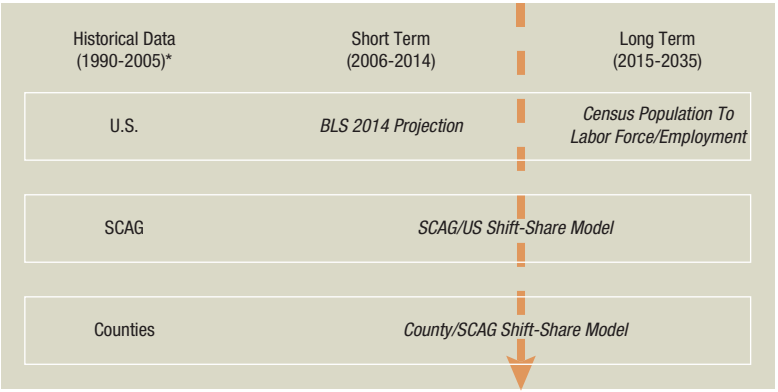
The trend extrapolations of households do consider anything beyond historical trends in the data. Institutional constraints, land constraints, and build-out scenarios from general plans are not considered in the trend projection. The development constraints, however, are eventually reflected in the process of developing the small area forecast. Average household size values are assumed to range from 1.2 to 5.5. These bounds of household size values are determined by expert opinion.

EMPLOYMENT FORECAST METHODOLOGY AND ASSUMPTIONS

The SCAG regional employment growth forecast is developed using a top down procedure from the national population and employment forecast to the region, county, and city level employment forecast.

REGIONAL EMPLOYMENT PROJECTION

FIGURE A4 EMPLOYMENT FORECAST FRAMEWORK



Shift-Share Model

Regional employment is projected using the shift-share model. The shift-share model is widely used because it is conceptually and computationally straightforward, requires only easily accessible data, and provides fast and reasonably accurate projections, given its costs. The model computes employment at a future point in time using a regional share of the nation's employment.

$$EMP_{t_1}^{region} = EMP_{t_0}^{region} + (EMP_{t_0-t_1}^{nation} * SHARE_{t_a-t_b}^{region})$$

$$SHARE_{t_a-t_b}^{region} = EMP_{t_a-t_b}^{region} / EMP_{t_a-t_b}^{nation}$$

where

$EMP_{t_1}^{region}$ = regional employment at the future year t_1

$EMP_{t_0}^{region}$ = regional employment at the base year t_0

$EMP_{t_1}^{nation}$ = national employment at the future year t_1

$SHARE_{t_a-t_b}^{region}$ = a regional share of the nation's employment during the interval $t_a - t_b$

National Employment Projection Model

The national employment projection is used as an input to calculate the regional employment with the assumption of the regional share of the national employment. The US Bureau of Labor Statistics (BLS) releases the short-term national employment projection in November 2005. The most recent national employment projections cover 2004-2014. SCAG develops its own long-term national employment projection 2005-2035 using the most recent US BLS employment projections, US Census population projections, and key socioeconomic assumptions including labor force participation rates, unemployment rates, and the ratio of jobs to workers.

The national employment projection is derived using the following procedure:

$$JOB_{t_1}^{nation} = POP_{t_1}^{nation} * LFPR_{t_1}^{nation} * (1 - UNEMP_{t_1}^{nation}) * (1 + DJR_{t_1}^{nation})$$

where

$JOB_{t_1}^{nation}$ = national employment at the future year t_1

$POP_{t_1}^{nation}$ = national population at the future year t_1

$LFPR_{t_1}^{nation}$ = national labor force at the future year t_1

$UNEMP_{t_1}^{nation}$ = national unemployment rate at the future year t_1

$DJR_{t_1}^{nation} = (JOB_{t_0}^{nation} / WRKR_{t_0}^{nation} - 1)$ = the national double job rate at the future year t_1

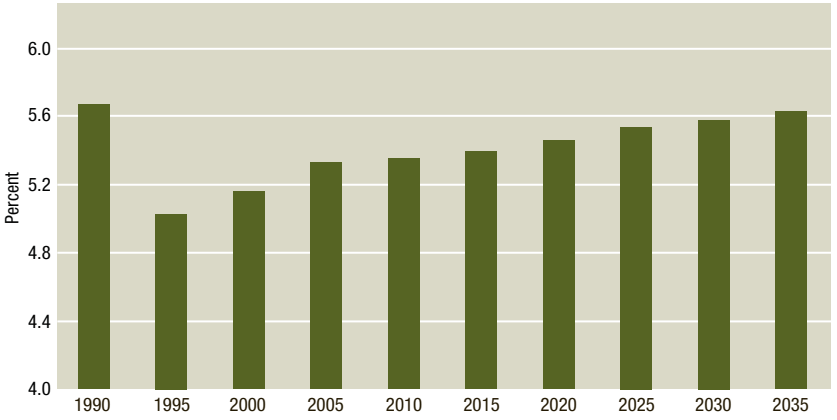
Key Regional Model Assumptions

Since the 2004 RTP growth forecast, the US Census Bureau released interim projections of the U.S. population by age, sex, race, and Hispanic origin in March 2004 and the US BLS updated labor force participation rate projections. SCAG developed the following key national socioeconomic assumptions for the national employment projection: the implied unemployment rate, the double job rate and the labor force participation rate. The implied unemployment rate is determined at 5.2% using the ten year average of 1995 and 2005. The unemployment rate remains constant during the projection horizon. The double job rate is set at 5.3% using the 2006 BLS estimate. SCAG adjusted the US BLS labor force participation rate of older age cohorts (55+) upward to reflect the behavioral change of those older age cohorts associated with the retirement of baby boomers and lack of skilled labor force.

Regional Share of National Employment

The regional share of national employment is developed by extrapolating the historical pattern of the regional share. Since there was an economic recession in the early 1990s, the regional share of national employment decreased from 5.7% in 1990 to 5.0% in 1995. After 1995, the region continues to increase its share of national employment. The most recent regional share of national employment was around 5.3% in 2005. SCAG expects that the regional share will increase to 5.5% in 2014, and maintains that share (5.5%) between 2014 and 2035.

FIGURE A5 THE REGIONAL SHARE OF NATIONAL EMPLOYMENT, 1990-2035



Regional Industry Projection Model

Regional employment of industry sectors is projected using the shift-share model. Employment projections are made for 20 major industry sectors classified by North American Industry Classification System (NAICS). The industry sectors include 1) Total Farm, 2) Natural Resources and Mining, 3) Utilities, 4) Construction, 5) Manufacturing, 6) Wholesale Trade, 7) Retail Trade, 8) Transportation and Warehousing, 9) Information, 10) Finance and Insurance, 11) Real Estate and Rental and Leasing, 12) Professional, Scientific and Technical Services, 13) Management of Companies and Enterprises, 14) Administrative and Support and Waste Services, 15) Educational Services, 16) Health Care and Social Assistance, 17) Arts, Entertainment, and Recreation, 18) Accommodation and Food Service, 19) Other Services, and 20) Public Administration. The model computes the employment in industry sector *"i"* at a future point in

time by using a regional share of the nation's employment in industry sector *"i"*.

$$EMP_{t_1}^{region_i} = EMP_{t_0}^{region_i} + (EMP_{t_0-t_1}^{nation_i} * SHARE_{t_a-t_b}^{region_i})$$

$$SHARE_{t_a-t_b}^{region_i} = EMP_{t_a-t_b}^{region_i} / EMP_{t_a-t_b}^{nation_i}$$

where

$EMP_{t_1}^{region_i}$ = regional employment in industry sector i at the future year t_1

$EMP_{t_0}^{region_i}$ = regional employment in industry sector i at the base year t_0

$SHARE_{t_a-t_b}^{region_i}$ = a regional share of the nation's employment in industry sector i during the interval $t_a - t_b$

Once regional employment is established, SCAG further develops the regional industry projection using six different "share" methods of projecting the share of each industry sector of total regional employment: 1) change in share of growth, 2) constant share of growth delta, 3) average share, 4) constant share of regional employment in 2005, 5) population growth, and 6) simple regression. The best method is selected among six methods through the statistical test. This approach is applied to the period of 2005-2014. The 2014 constant share approach is used to develop the share of each industry sector between 2014 and 2035.

The following is a brief discussion of the first five methods of calculating the regional share of national employment by industry sector using year 2014 as a projection year.

Change in Share of Growth

The regional employment projection is based on the assumption that the industry sectors' share of the regional employment will increase its share by 50 percent of the annual average share of change from the period of 1994 and 2005 (or 1990-2005) for the target year 2014.

Two different base periods are used to compute the industry sectors' share of the regional employment. This method is applied to the following industry sectors: 1) Total Farm (1994-2005), 2) Utilities (1990-2005), 3) Wholesale Trade (1994-2005), 4) Finance and Insurance (1990-2005), 5) Arts, Entertainment, and Recreation (1994-2005), and 6) Accommodation and Food Service (1994-2005). The regional employment projection in selected industry sector i for year 2014 using the base periods of 1994 and 2005 is calculated as follows:

$$EMP_{t_{2014}}^{region_i} = EMP_{t_{2014}}^{region} * A(SHARE_{t_{1994}-t_{2005}}^{region_i})$$

$$SHARE_{t_{1994}-t_{2005}}^{region_i} = EMP_{t_{1994}-t_{2005}}^{region_i} / EMP_{t_{1994}-t_{2005}}^{region}$$

where

$EMP_{t_{2014}}^{region_i}$ = regional employment in industry sector i in 2014

$EMP_{t_{2014}}^{region}$ = regional employment in 2014

A= change in share

$SHARE_{t_{1994}-t_{2005}}^{region_i}$ = a regional share of the nation's employment in industry sector i during the interval $t_{1994} - t_{2005}$.

Constant Share of Growth Delta

The regional employment projection is based on the assumption that the regional employment growth in industry sectors will maintain a constant share of the national employment growth in industry sectors. Two different growth periods (1994-2005 and 1990-2005) are used as a base period. This method is applied to the following industry sectors: 1) Manufacturing (1990-2005), 2) Transportation and Warehousing (1994-2005), 3) Information (1990-2005), and 4) Professional, Scientific and Technical Services (1994-2005). The regional employment projection in selected industry sector i for year 2014 using the base periods of 1994 and 2005 is calculated as follows:

$$EMP^{region_i}_{t_{2014}} = EMP^{nation_i}_{t_{2014}} * SHARE^{region_i}_{t_{1994}-t_{2005}}$$

$$SHARE^{region_i}_{t_{1994}-t_{2005}} = EMP^{region_i}_{t_{1994}-t_{2005}} / EMP^{nation_i}_{t_{1994}-t_{2005}}$$

where

$EMP^{region_i}_{t_{2014}}$ = regional employment in industry sector i in 2014

$EMP^{nation_i}_{t_{2014}}$ = national employment in industry sector i in 2014

$SHARE^{region_i}_{t_{1994}-t_{2005}}$ = a regional share of the nation's employment in industry sector i during the interval $t_{1994} - t_{2005}$.

$EMP^{region_i}_{t_{1995-2005}}$ = growth of regional employment in industry sector i between 1994 and 2005

$EMP^{nation_i}_{t_{1995-2005}}$ = growth of national employment in industry sector i between 1994 and 2005

Average Share

The regional employment projection is based on the annual average share of the regional employment in industry sectors between 1995 and 2005. The historical average share methodology is normally used when the industry job share has been relatively constant, the change in share method is not suitable, and it is reasonable to assume that the regional share will not change. It is normally assumed that the historical average share will continue because there is rarely specific information to the contrary. This method is applied to Natural Resources and Mining.

Constant Share of Regional Employment in 2005

The regional employment projection is based on the assumption that the 2005 regional employment in industry sectors will maintain a constant share of 2005 total regional employment. This method is applied to the following industry sectors: 1) Real Estate and Rental and Leasing 2) Management of Companies and Enterprises, and 3) Administrative and Support and Waste Services. The regional employment projection in industry sector i for year 2014 is computed as follows:

$$EMP^{region_i}_{t_{2014}} = EMP^{region}_{t_{2014}} * SHARE^{region_i}_{t_{2005}}$$

$$SHARE^{region_i}_{t_{2005}} = EMP^{region_i}_{t_{2005}} / EMP^{region}_{t_{2005}}$$

where

$EMP^{region_i}_{t_{2014}}$ = regional employment in industry sector i in 2104

$EMP^{region}_{t_{2014}}$ = total regional employment in 2010

$SHARE^{region}_{t_{2005}}$ = a regional share of the nation's employment in industry sectors indicated above in 2005

$EMP^{region_i}_{t_{2005}}$ = regional employment in industry sector i in 2005

$EMP^{region}_{t_{2005}}$ = total regional employment in 2005

Population Growth

The regional employment projection in some industry sectors is related to population growth. The projection of non-basic (population servicing) industries is based on population growth. One growth period (1994-2005) is used as a base period. This method is applied to the following industry sectors: 1) Construction, 2) Educational Services, 3) Health Care and Social Assistance, 4) Other Services, and 5) Public Administration. The regional employment projection in a selected industry sector i for year 2014 using the base period of 1994 and 2005 is calculated as follows:

$$EMP^{region_i}_{t_{2014}} = EMP^{region_i}_{t_{2005}} + POP^{region}_{t_{2005-2014}} * (SHARE^{region_i}_{t_{1994}-t_{2005}})$$

$$SHARE^{region_i}_{t_{1994}-t_{2005}} = EMP^{region_i}_{t_{1994}-t_{2005}} / POP^{region}_{t_{1994}-t_{2005}}$$

where

$EMP^{region_i}_{t_{2014}}$ = regional employment in industry sector i in 2014

$EMP^{region_i}_{t_{2005}}$ = regional employment in industry sector i in 2005

$POP^{region}_{t_{2005-2014}}$ = regional population growth between 2005 and 2014

$EMP^{region_i}_{t_{1994-2005}}$ = regional employment in industry sector i between 1994 and 2005

$POP^{region}_{t_{1994-2005}}$ = regional population growth between 1994 and 2005

Base Year Employment Estimates

Total employment for the base year (2003) is estimated based on a) Wage & Salary employment from California Employment Development Department (EDD), and b) Self-employment estimates. Total employment is estimated by each of 20 industries based on NAICS.

CA EDD revises wage & salary employment estimates according to detailed tax records. Tax record data are used through March of previous year; therefore, the revision is referred to as the March Benchmark. On March 4, 2005, CA EDD released March 2004 Benchmark data

Self-employment is calculated using the self-employment rate, and wage and salary employment data. Self-employment rate is the share of self-employment to total employment. The SCAG regional self-employment rate is estimated at 8.3%, which derived from the 2000 US PUMS data.

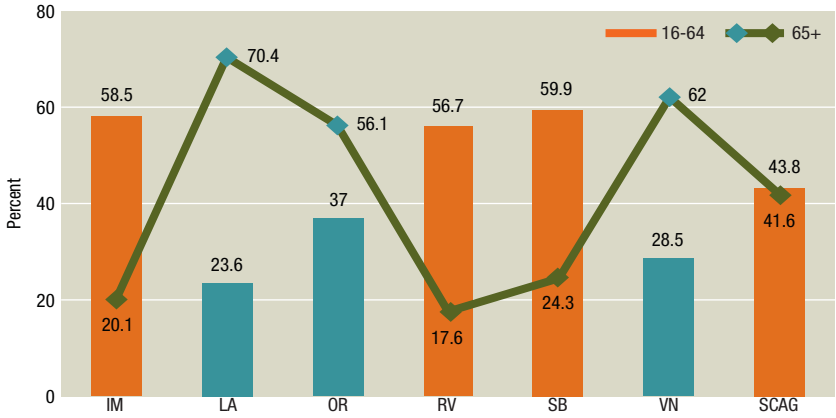
COUNTY EMPLOYMENT PROJECTION

As used in the regional employment projection, SCAG uses the shift-share model to project county employment. The county industry projection also uses six different methods of projecting the share of each industry sector of total county employment: 1) change in share of growth, 2) constant share of growth delta, 3) average share, 4) constant share of regional employment in 2005, 5) population growth, and 6) simple regression. The best method is selected among the six methods through the statistical test.

Aging trends are incorporated in developing the county employment forecast. Due to significant aging trends, the future growth of the working-age population (16-64) will be lower than that of the older population for Los Angeles, Orange, and Ventura, which will directly affect the growth of the labor force for those counties. For the Inland Empire and Imperial County, the growth of working-age population will be larger than the elderly population.

Figure A6 shows a projected age composition of population growth between 2000 and 2035. For example, Los Angeles, Orange, and Ventura counties show a relatively higher share of the elderly people, while Imperial, Riverside, and San Bernardino Counties show lower share of the elderly people during the same period.

FIGURE A6 AGE COMPOSITION OF POPULATION GROWTH BETWEEN 2000 AND 2035



With the impacts of national job growth, different county levels of aging trends will affect the relative growth of the working age population, which will in turn affect the relative "competitiveness" of each county in competing for the regional job growth.

Upon testing the relationship between job growth and labor force growth, it was found that slower growth in working age population does statistically

result in slower job growth. Thus employment growth and shares of regional jobs in Los Angeles, Orange, and Ventura Counties are projected to slow down further, more than the historical trends. On the other hand, jobs in Imperial County and the Inland Empire are projected to grow faster than growth suggested by historical trends.

CITY EMPLOYMENT PROJECTION

City level employment by industry sector was traditionally estimated using private and public sources including Dun & Bradstreet, InfoUSA, and California EDD. For the 2008 RTP, SCAG planned to use ES202 (or the Quarterly Census of Employment and Wages (QCEW)) for city level employment estimates. ES202 data include wage and salaried employees based on quarterly tax reports submitted to CA EDD by California employers. ES202 data, electronically delivered to SCAG staff by CA EDD staff, did not match the CA EDD County employment estimate. There was a difference of 1 million jobs between ES 2020 and EDD benchmark database.

SCAG used the US Census Transportation Planning Package (CTPP) 2000 for the city level employment estimates and projection. CTPP is intended to survey transportation planning activities of workers. CTPP part 2 provides information of workers by place of work at both city and block group levels. CTPP is based on large sample (1 in 6 households). There might be an undercount issue. Between 1990 and 2000, regional employment increased by 7%, while CTPP data showed a 1% reduction. Employment distribution has an implication for trip attractiveness, truck model, and housing. CTPP data was used as a basis to distribute employment to cities. In the long-term ES202 data will continue to be evaluated.

City level employment projections are based on the constant-share method. The industry sectors of each city within a county are assumed to maintain the 2000 constant share of the county employment in the specific industries.

$$EMP_{t_{2014}}^{city_i} = EMP_{t_{2014}}^{county_i} * SHARE_{t_{2000}}^{cty}$$

$$SHARE_{t_{2000}}^{city_i} = EMP_{t_{2000}}^{city_i} / EMP_{t_{2000}}^{county_i}$$

where

$EMP_{t_{2014}}^{city_i}$ = city employment in industry sector i in 2014

$EMP_{t_{2014}}^{county_i}$ = county regional employment in industry sector i in 2014

$SHARE_{t_{2000}}^{city_i}$ = a city's share of the county's employment in industry sectors in 2000

$EMP_{t_{2000}}^{city_i}$ = city employment in industry sector i in 2000

$EMP_{t_{2000}}^{county}$ = county employment in industry sector i in 2000

SMALL AREA FORECAST METHODOLOGY AND ASSUMPTIONS

Small area baseline socioeconomic projections refer to the most likely growth distribution of population, household, and employment at small geographical area levels without any explicit regional policies. The base year is 2003 and the projection horizon is 2005-2035 in five year increments. The small area geographies include SCAG's Traffic Analysis Zones (TAZ) and US Census Tracts (CT). The small area baseline projection is primarily based on the small area local input projection from local jurisdictions through SCAG's extensive local review and input process. The small area baseline projection captures demographic trends, existing land uses, and general plan land use policies and is controlled to city, county and regional baseline projections. Different methodologies have been applied to project total population, household, and employment in the target year (2035) and in the intermediate years (2005-2030 in five year increments).

2035 SMALL AREA PROJECTION

Over the past several years, SCAG embarked on a very extensive growth forecasting outreach process soliciting local review/input on small area distribution of projected future growth. The small area level input submitted by local jurisdictions varies substantially from jurisdiction to jurisdiction. For those local jurisdictions that have provided complete small area level input, their 2035 small area population, household, and employment projections form the 2035 small area baseline projection for these jurisdictions.

For all the other jurisdictions that did not provide complete small area level input, the 2035 small area baseline projection is developed by utilizing the 2000 Census distributions and integrating the small area local input with the 2008 RTP small area trend projection. The 2008 RTP small area trend projection represents an update to 2004 RTP small area trend projections. As a result, the fundamental methodology remains the same.

Household Projection

The first step is to project target year single households (SDOs). This is done by comparing small area 1990 to 2000 growth in SDOs with their city's growth in SDOs for the same period. SCAG applies that same relationship to the cities' base year to target growth to infer each small area share of that growth. This target year small area projection is averaged with prior RTP projections for the same small area to get a final projection. These projections are adjusted to make sure they are consistent with the city's forecast.

The next step is to project target year total households by first estimating each small area's percentage of single households. This is done by using the base year small area's single percentage compared to the city's. This relationship is then applied to the city's target year single percentage to get the small area's target year percentage. Once the small area's total target year single households and single percentage have been projected, SCAG calculates the total household projection by dividing the single projection by the single percentage.

The third step is to incorporate regionally significant Inter-Governmental Review (IGR) projects. Specifically, for small areas where an IGR project is located, a minimum household projection is set for each small area based on the number of housing units that will be developed in that small area.

The final step is to normalize the small area household projection to meet the city, county, and regional level household projections.

Population Projection

Similar to the household projection method, the first step is to project target year residential population based on projected small area household size and the projected target year small area household. SCAG calculates the target year household size by applying the base year ratio of small area to city household size to the city's target year household size.

The second step is to project target year group quarter populations (GQP). The following assumptions are made about group quartered population projections: no changes in military bases (closings or new construction), no new prisons, jails, or mental hospitals will be built, and, no new major universities or colleges (except CSU, Channel Islands). The target year group quartered population is calculated by applying the small area's base year share of the city's GQP to the city's target year projection. The target year small area total population is simply the sum of the residential population and the GQP.

The third step is to incorporate regionally significant Inter-Governmental Review (IGR) projects. Specifically, for small areas where an IGR project is located, a minimum population projection is set for each small area based on the number of projected households that will reside in that small area due to the project.

The final step is to normalize the small area population projection to meet the city, county and regional level population projections.

Employment Projection

Similar to the household projection method, the first step is to project target year service employment, using a mix of the small area's share of the city's service employment, in the base year and the previous RTP's target year. This share is applied to the city's target year projection of service jobs.

The next step is to project the percent of service employment to total employment applying the same method as was done for percentage of single households. Given these two projections, total employment can be calculated by dividing the service employment by the percent of service employment.

The third step is to incorporate regionally significant Inter-Governmental Review (IGR) projects. Specifically, for small areas where an IGR project is located, a minimum employment projection is set for each small area based on the number of forecasted jobs that will be created by the development project.

The final step is to normalize the small area employment projection to meet the city, county and regional level employment projections.

SMALL AREA PROJECTION - INTERMEDIATE YEARS

It is assumed that the small area growth pattern in all intermediate years as compared to the 2003-2035 small area growth will follow the city growth pattern. For example, if a city reaches twenty percent of its 2003 to 2035 growth by 2010, all the small areas within the city will also reach the same twenty percent of their corresponding small area 2003 to 2035 growth by 2010. Based on this assumption, an interpolation method, the city-growth-share method[6], has been applied to forecast 2005-2030 household, population, and employment in five year increments.

The city-growth-share method ensures consistent trends at small area levels between intermediate years and 2003-2035. The method also guarantees that all the intermediate year projections meet their respective city, county, and regional controls.

Local Survey

SCAG relies on local jurisdictions to update socioeconomic estimates and forecast at the small area level. The updated zoning and general plan of each jurisdiction play a key role in adjusting the current small area growth forecast. In April 2005, SCAG sent out a letter requesting assistance from local jurisdictions to get updated land use and development information for developing the 2008 RTP integrated growth forecast. SCAG made adjustments to the existing small area estimates and forecast, as the updated information was submitted by local jurisdictions. The updated information includes land use change, approval of regional significant development projects unknown in 2002, update of general plans or specific plans since 2002, change of zoning standards, or revision of build-out capacities.

Expert Review

The 2008 RTP Integrated Growth Forecast process is driven by a principle of collaboration between SCAG, subregions, local jurisdictions, county transportation commissions, and other major stakeholders throughout the region. The Plans & Programs Technical Advisory Committee (P&P TAC) assisted in the process by providing technical input; Policy Committees of the Regional Council were periodically informed of progress and provided direction to the program through the actions they take.

An organized forecasting decision making process is required to develop a consensus regional growth forecast in an efficient, fair, and open manner. Those involved in the forecasting process to build consensus included: a panel of forecasting experts, subregions, local workshops, stakeholders, data users and researchers, technical committees, policy committees, and the Regional Council.

[6] Choi, S., (2002, November). *Maintaining the Spatial and temporal Consistency of Small Area Population Forecasts Using the Multi-Period Share of Growth Method*. Paper presented at the 44th Annual Association of Collegiate Schools of Planning, Baltimore, Maryland.

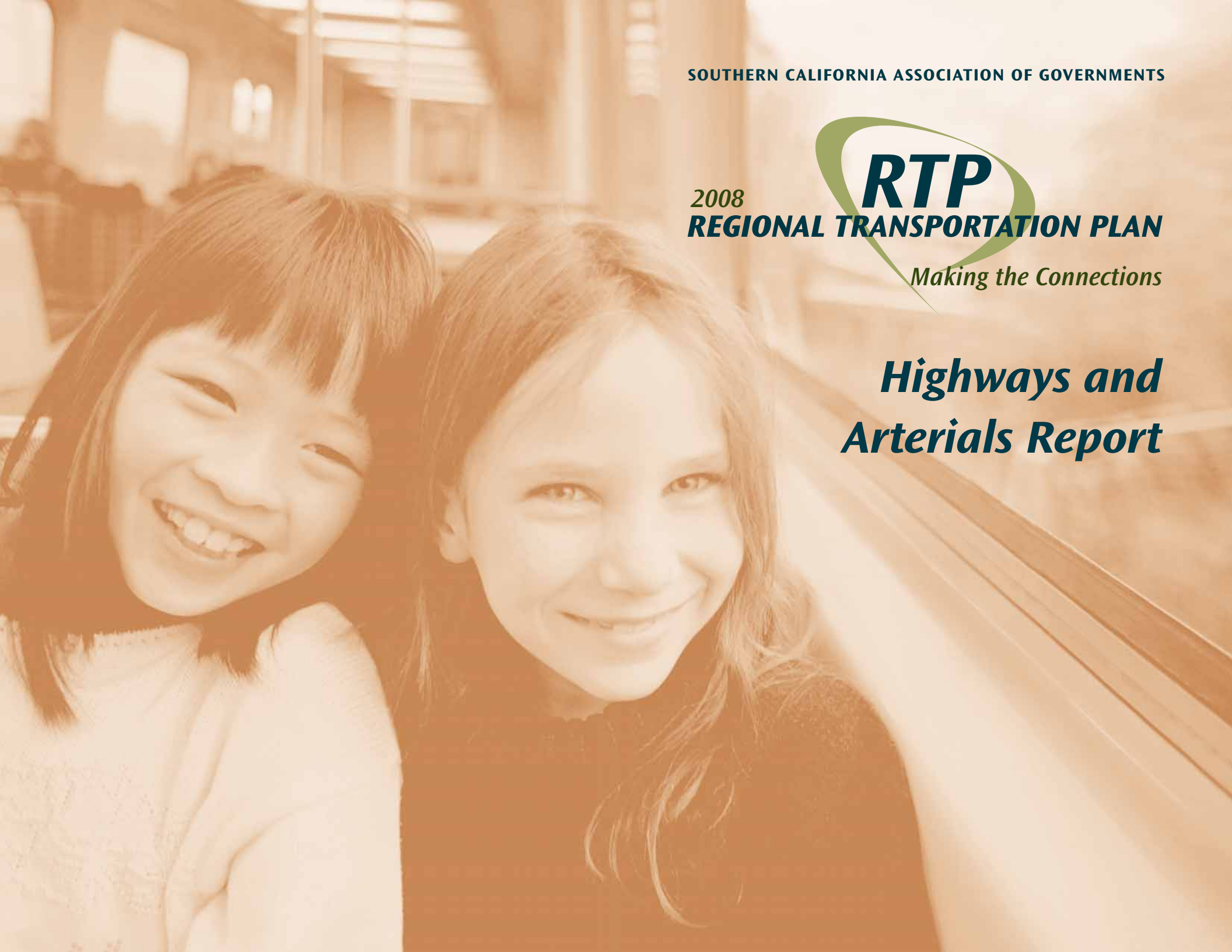
In May 2006, a Panel of Experts reviewed SCAG's 2007 Integrated Growth Forecast methodology, procedure, and results. The panel concluded and suggested that:

- Policy components are needed, even in the case of the Baseline forecast. The baseline numbers cannot stand alone; the region must concentrate on how policy supports and affects future forecasts. These policies must be explicit and easily identifiable.
- The regional employment forecast may be conservative, especially if the region could adopt effective policies that boost economic growth. Panel members sought a better understanding of the types of jobs associated with the employment forecast for the SCAG region.
- Housing and jobs are inextricably linked. The region, or subregions, will not achieve the robust job growth without housing production to match. Jobs will relocate to areas with housing either within the region or to other regions.
- The demographics, from the success of 2nd and 3rd generation immigrants and the associated positive changes in their socioeconomic status could have large impacts on household formation and housing demand.
- In the first half of 2007, the Panel of Experts met twice to further discuss and provide input on:
  - The policy implications of technical forecasts, structure change of the economy and demographics, and impacts on growth forecasts
  - Best practice frameworks and procedures in conducting the policy forecast
  - Effective ways to communicate with subregions and local jurisdictions regarding policy impacts, policy forecasts (growth numbers), and regional growth policies and implementation instruments.

Local Input of Growth Distribution

Local jurisdictions were consulted for input regarding growth as part of the forecasting methodology. The following local input was used in developing the county and small area distribution of the forecast for the Baseline scenario:

- Imperial County: The 2035 consensus total population, household, and employment growth projections at traffic analysis zone (TAZ) and city levels were agreed upon by SCAG, IVAG, and Caltrans District 11.
- Los Angeles County: The 2035 total population, household, and employment growth projections at census tract and city levels provided by subregions and cities.
- Orange County: The Adopted 2006 OCP 2035 total housing and employment projections at census tract, city, and county levels as submitted by OCCOP.
- Riverside County: The 2006 RCP 2035 total population, household, and employment projections at census tract, city, and county levels provided by Riverside County Transportation and Land Management Agency (RCTLMA). This agency collected city level/census tract level input from local jurisdictions in Riverside County as agreed upon by RCTLMA, WRCOG, and CVAG.
- San Bernardino County: The 2035 household and employment projections at census tract, city, and county levels provided by SANBAG.
- Ventura County: The 2035 total population, household, and employment growth projections at census tract and city levels provided by VCOG.



SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2008
RTP REGIONAL TRANSPORTATION PLAN

Making the Connections

Highways and Arterials Report

HIGHWAYS AND ARTERIALS

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Introduction

Southern California's highway and arterial system is the backbone of the region's economic well-being, facilitating the movement of people and goods to and from activity centers, including the region's airports and seaports. Perhaps nowhere else has the automobile and its use been more associated with, and integral to, a way of life than in Southern California. Consequently, the highway and arterial system has played an important role in the access to commercial and cultural activities through our the region. The system encompasses multiple modes of transportation, including public transit and bicycle travel. According to the Southern California Association of Government's (SCAG) Regional Travel Demand Model (RTDM), nine out of every ten trips relies either entirely or in part on the highway and arterial system.

Despite the importance of the system, improvements and additions to the system have not kept pace with the region's increasing population and transportation demand. This has been due to the rising costs of system improvements, which has resulted from increased environmental awareness, community opposition, and rising costs of materials. These increases in cost have been further amplified by the decline in the primary source of transportation funding, the gasoline excise tax.

Consequently, the region's traffic congestion has increased dramatically, leading to a less productive transportation system with negative consequences such as wasted time and fuel and poor air quality. The preservation, management, and selective expansion of the highway and arterial system are crucial to maintaining the region's economic vitality and quality of life.

Therefore, this Plan is based on an integrated approach, discussed in more detail in "The Plan 2035 System" section, to maximize mobility. This approach is based on the premise of taking care of and making the most out of our existing system before investing in costlier expansion projects that are still recognized as necessary improvements to accommodate the region's projected growth. Strategies that are coordinated in such a manner will improve the mobility of our region, with results demonstrated using performance measures to ensure that the best performing projects are included in the Plan for funding.

The Existing System - Base Year 2003

SYSTEM DESCRIPTION

Southern California has almost 21,000 center-line miles and 65,000 lane-miles of roadways, including one of the most extensive High-Occupancy Vehicle (HOV) lane systems in the country. Additionally, the region has a growing network of toll lanes and High Occupancy Toll (HOT) lanes. Although freeways account for only 18 percent of the total system lane-miles, they carry over 50 percent of the total Vehicle Miles Traveled (VMT) and will continue to be the workhorse of the system. Regionally significant arterials provide access to the freeway system and often serve as parallel alternate routes; in some cases they are the only major system of transportation available to travelers. The arterial system, including collectors, carries just under 40 percent of all VMT. Table 1 provides a summary of the number of miles in the existing Base Year 2003 highways and arterials network.

TABLE 1 BASE YEAR 2003 NETWORK SUMMARY (TOTAL ALL FACILITIES)

County	Centerline Miles	Lane Miles (AM Peak Period)
Imperial	1,695	3,738
Los Angeles	7,470	26,234
Orange	2,006	8,455
Riverside	3,247	9,325
San Bernardino	5,329	14,056
Ventura	976	2,976
Region	**20,723**	**64,785**

EXHIBIT 1 BASE YEAR 2003 REGIONALLY SIGNIFICANT ARTERIAL SYSTEM



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 2 BASE YEAR 2003 NUMBER OF FREEWAY LANES



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 3 BASE YEAR 2003 TOLL AND HOV LANES



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

MOBILITY

As the second-largest metropolitan area in the United States with over half of California's residents, the Southern California region is the most congested metropolitan area in the country. Utilizing its new RTDM, SCAG assessed the performance of the existing transportation system and identified system gaps and bottlenecks. Over the past twenty years, traffic delays have nearly tripled in the region, and the RTDM estimates the following alarming traffic delay statistics (delay defined as the difference in travel time between free flow conditions and actual conditions):

- 4.0 million vehicle hours of daily delay
- 5.9 million person hours of daily delay
- 20 minutes of delay per capita during peak commute periods

Almost as frustrating as daily recurrent delay is the variability of travel time. For example, trips that on average take 30 minutes often last much longer due to incidents, collisions, weather, special events, construction activities, or other difficult-to-predict conditions. The frequency of such unpredictable delays over and beyond "normal" congestion has been increasing steadily on our roadways. The combination of increasing congestion and decreasing predictability of travel times has led to our region's status as the congestion capital of the country.

Per capita data in this section is based on the Base Year average vehicle occupancy (AVO) for each county and the region as a whole (Table 2).

TABLE 2 BASE YEAR 2003 AVERAGE VEHICLE OCCUPANCY

County	AVO
Imperial	1.60
Los Angeles	1.46
Orange	1.40
Riverside	1.49
San Bernardino	1.50
Ventura	1.40
Region	**1.45**

As seen in Table 3, the SCAG Region loses 4.0 million vehicle hours each day due to delay, with the vast majority of those hours lost in Los Angeles County (2.7 million). However, when measured by delay per capita, Orange County travelers experience delay comparable to that in LA County even though LA County travelers experience a total delay four times that of Orange County. Regionwide, the average roadway speed is 30.5 miles per hour, with only Imperial County experiencing average speeds over 40 mph.

TABLE 3 BASE YEAR 2003 DAILY VMT, VHT, DELAY, AND SPEED

County	VMT	VHT	Delay (hours)	Delay per capita (minutes)	Avg Speed (mph)
Imperial	4,941,000	101, 000	7,000	4.5	49.2
Los Angeles	216,375,000	7,901, 000	2,675,000	23.3	27.4
Orange	70,458,000	2,315,000	687,000	19.3	30.4
Riverside	44,009,000	1,153,000	261,000	13.4	38.2
San Bernardino	54,240,000	1,392,000	276,000	13.2	39.0
Ventura	18,611,000	535,000	125,000	13.3	34.8
Region	**408,634,000**	**13,395,000**	**4,033,000**	**20.0**	**30.5**

Numbers may not add due to rounding.

Table 4 shows the time and distance of the average home-based trip to work in the AM Peak Period. Regionwide, the average trip takes just under half

an hour and is almost 14 miles long. Trips in San Bernardino and Riverside Counties are the longest in both time and distance.

TABLE 4 BASE YEAR 2003 HOME-BASED WORK TRIP AVERAGE TRIP LENGTH I AM PEAK

County	Time (minutes)	Distance (miles)
Imperial	12.86	8.75
Los Angeles	27.91	12.48
Orange	24.27	11.88
Riverside	32.81	18.12
San Bernardino	35.89	20.10
Ventura	26.17	14.46
Region	**28.24**	**13.67**

As previously stated, freeways account for only 18 percent of the total system in terms of lane-miles, yet carry approximately 50 percent of the total VMT. Table 5 shows that the average speed on our freeways' mixed flow lanes is just under 40 mph, helping to contribute to the 2.0 million hours of daily delay on these lanes. This consists of nearly half of total delay on all types of roadways regionwide.

TABLE 5 BASE YEAR 2003 DAILY VMT, VHT, DELAY, AND SPEED BY FACILITY TYPE

Facility Type*	VMT	VHT	Delay (hours)	Avg Speed (mph)
Freeway (MF)* & Toll	196,387,000	4,965,000	1,952,000	39.6
Freeway (HOV)*	9,526,000	243,000	95,000	39.1
Arterial	145,967,000	5,513,000	1,376,000	26.5
Collector	12,658,000	468,000	95,000	27.1
Ramp	13,254,000	948,000	515,000	14.0
Centroid Connector*	30,843,000	1,258,000	N/A	N/A
Region	**408,634,000**	**13,395,000**	**4,033,000**	**30.5**

* Notes: MF for mixed flow or general purpose lanes, as opposed to HOV, high occupancy vehicle or carpool lanes. Centroid connectors are intra-zonal links used in regional travel demand models to allocate trips from zone centroids to the highway network.
Numbers may not add due to rounding.

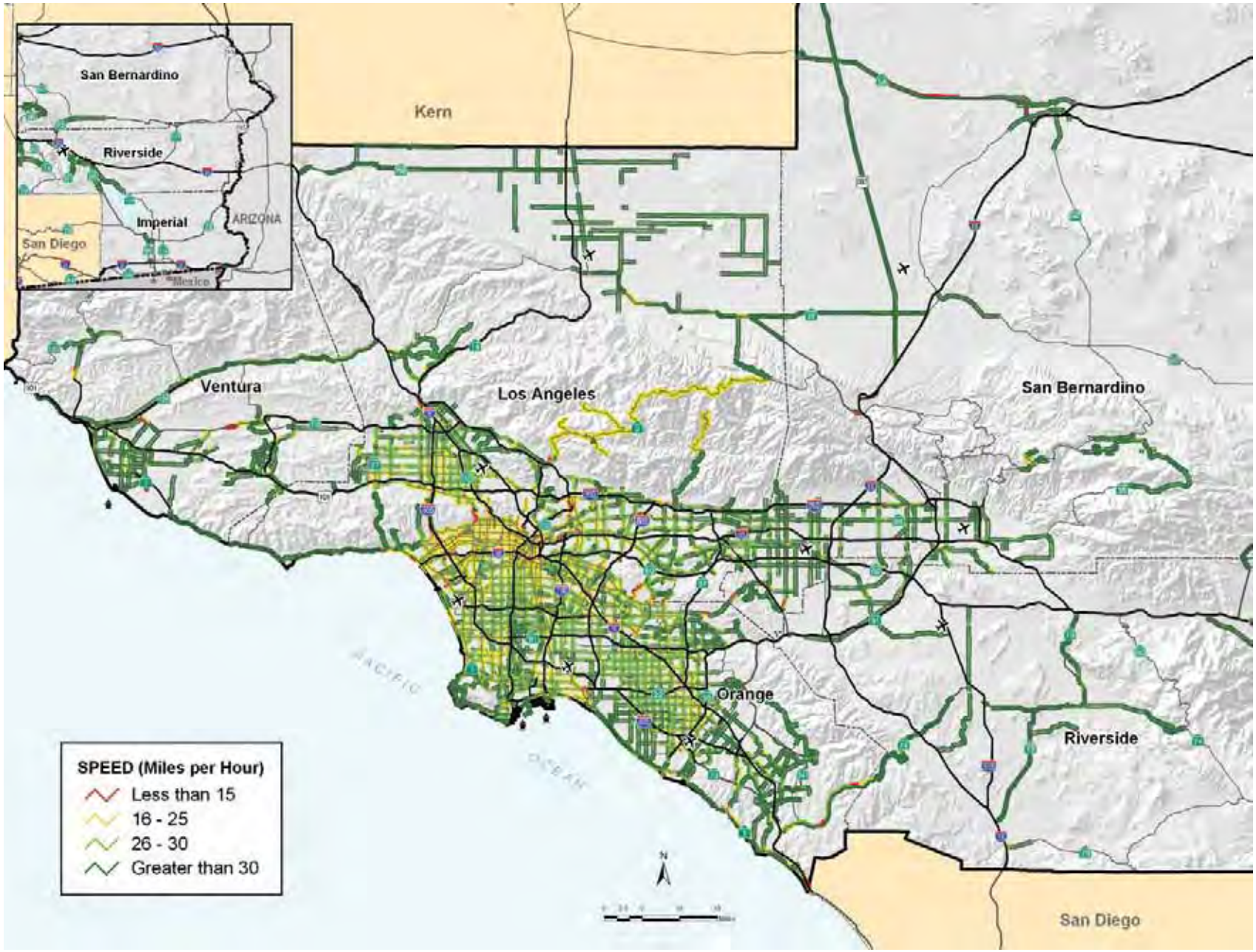
Averages across time periods and geographic space only tell part of the story. Specific roadway corridors often experience speeds less than 10 miles per hour for portions of the peak period. The following maps show the current average speeds of the freeway and arterial system during the AM and PM Peaks based on SCAG's RTDM.

EXHIBIT 4 BASE YEAR 2003 FREEWAY SPEED | AM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 5 BASE YEAR 2003 ARTERIAL SPEED | AM PEAK



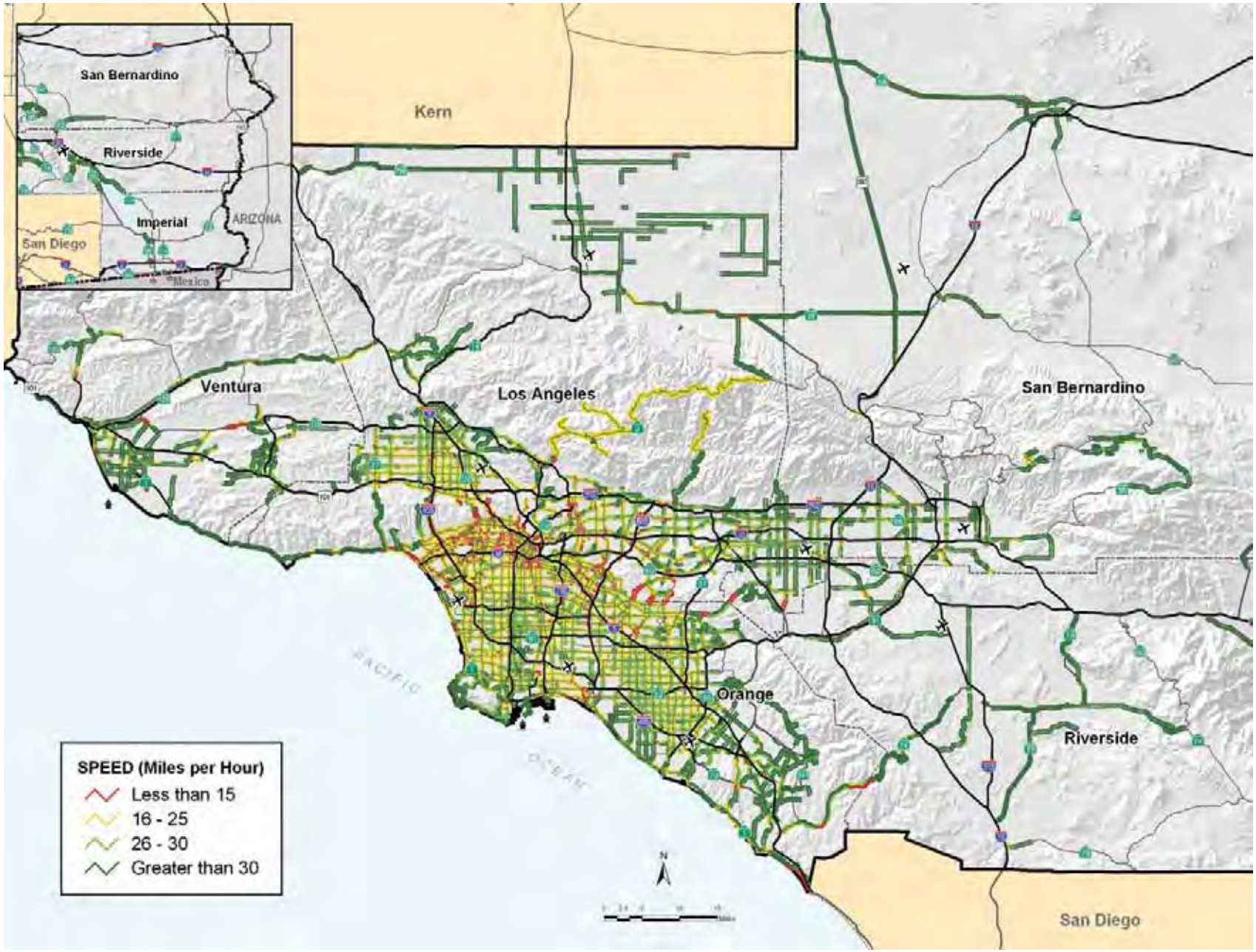
Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatla

EXHIBIT 6 BASE YEAR 2003 FREEWAY SPEED | PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 7 BASE YEAR 2003 ARTERIAL SPEED | PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

ACCESSIBILITY

As Figure 1 shows, less than 80 percent of the region's commute trips during the PM Peak period can be completed in 45 minutes or less. While most counties have similar accessibility curves, two counties clearly stand out as extremes: Imperial, which has an accessibility that is higher than most counties, and Los Angeles, with lower accessibility.

FIGURE 1 BASE YEAR 2003 AUTO HOME-BASED WORK TRIP CUMULATIVE DISTRIBUTION | PM PEAK

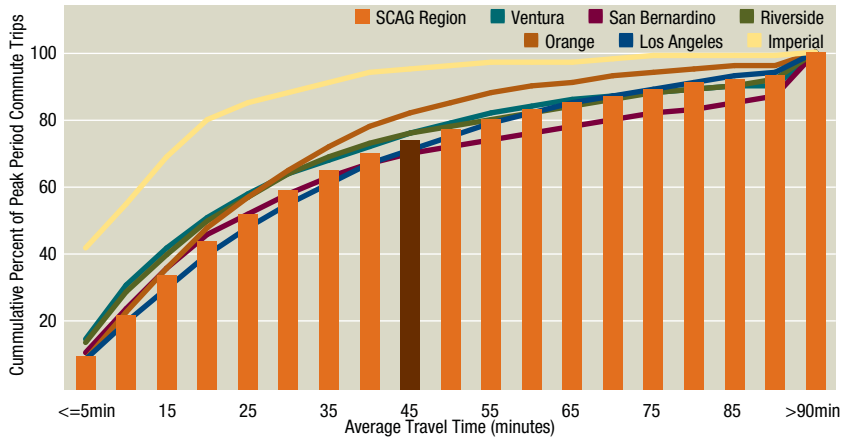
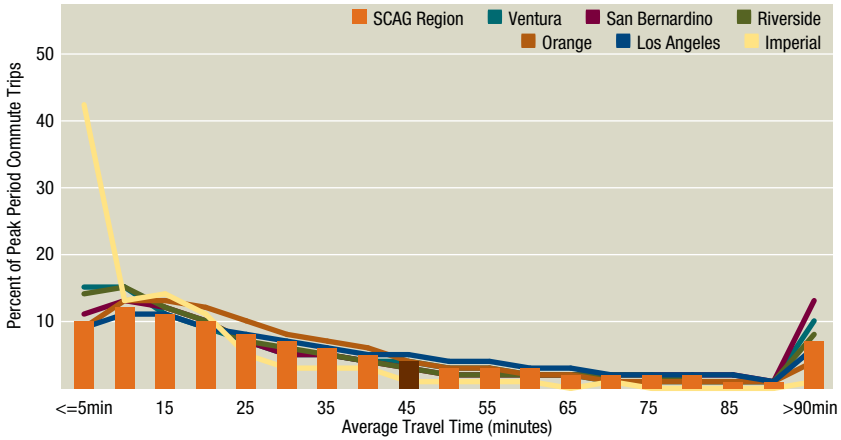


Figure 2 shows a non-cumulative distribution of the region's accessibility. Of particular concern is the tail end of the distribution, representing commutes that last over 90 minutes.

FIGURE 2 BASE YEAR 2003 AUTO HOME-BASED WORK TRIP DISTRIBUTION | PM PEAK



PRODUCTIVITY

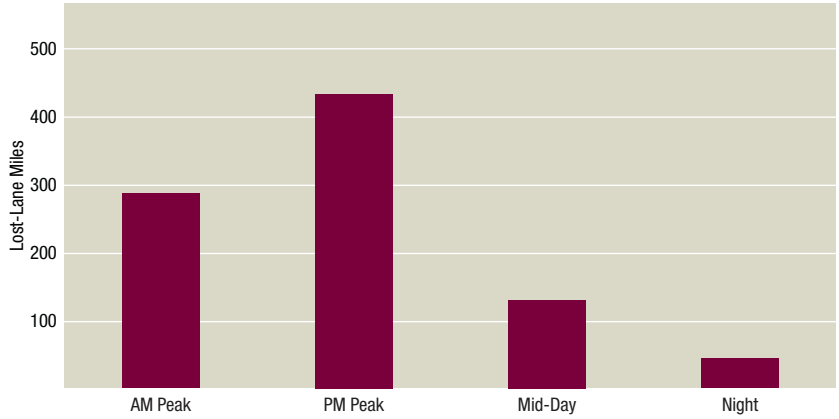
Roadways are built to provide traffic capacity to vehicles. For instance, freeways are generally built to provide a capacity of between 1,600 and 2,000 vehicles per hour per lane. When a segment of the freeway provides this "design" capacity, it is considered productive. However, the roadway system loses its productivity when it is unable to provide the capacity that it was designed to serve. This occurs at locations commonly referred to by transportation planners and engineers as bottlenecks and the queues building up behind these bottlenecks (e.g., at freeway-to-freeway interchanges). The resulting productivity losses of the system occur generally during peak demand periods and are caused by merges, weaves, lane drops, stalls, accidents, and other factors. So in effect, when demand is highest, system productivity actually decreases. Many freeway segments in the SCAG Region experience productivity losses and end up serving between 1,000 and 1,500 vehicles per hour per lane instead of the almost 2,000 vehicles per hour per lane for which they were designed.

When these productivity losses are aggregated, they can be presented in terms of "Lost Lane Miles," which reflect the equivalent capacity subtracted from

the roadway system. Figure 3 presents the results of an analysis to estimate the lost productivity in the SCAG Region based on actual traffic data from the region's freeway system during the four major time periods of the day: AM Peak, PM Peak, Mid-Day, and Night.

This "lost" capacity in the AM Peak Period, attributable to a large extent to non-recurring incidents such as accidents, weather conditions, stalled vehicles, etc. could have the effect of the loss of approximately 286 lane miles of freeway capacity when it is needed the most. The cost of physically adding this lost capacity by widening existing facilities would exceed $4 billion.

FIGURE 3 PRODUCTIVITY RESULTS BY TIME PERIOD

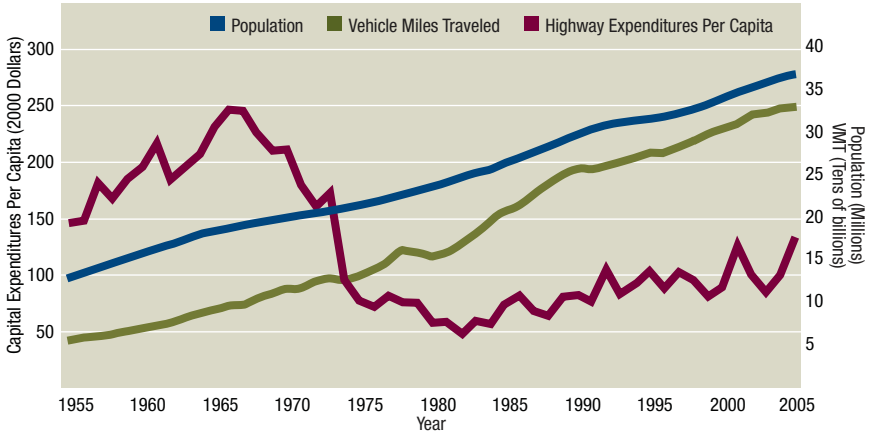


Source: Freeway Performance Measurement System (PeMS)

SUPPLY NOT KEEPING UP WITH DEMAND

As discussed in Chapter II of the RTP, people are moving further away from established urban areas, at least partly because of housing costs. This creates incremental demand for travel. The size of the roadway system, however, has not kept pace with population and transportation demand. Figure 4 illustrates this problem. The figure shows that while California's population and total vehicle miles traveled have more than doubled since 1970, expenditures on this vital system have decreased significantly beginning in the early 1970s and have still not reached the level of investments made during the 1960s. Once the preservation and operations costs are subtracted from these expenditures and the high construction inflation is accounted for, it is easy to understand why the supply of roadways did not keep up with the demand growth for over three decades.

FIGURE 4 CALIFORNIA POPULATION, TRAVEL AND HIGHWAY EXPENDITURE TRENDS*



* Includes expenditures for local assistance and state highway capital outlay. Office of Transportation Economics/DOTP 9/2006

Source: California Department of Transportation

Note that these trends were not altogether unintentional. In fact, starting in 1980, a major shift occurred away from building roadways and into transit projects and services. This trend was planned and executed deliberately and understandably.

AGING INFRASTRUCTURE

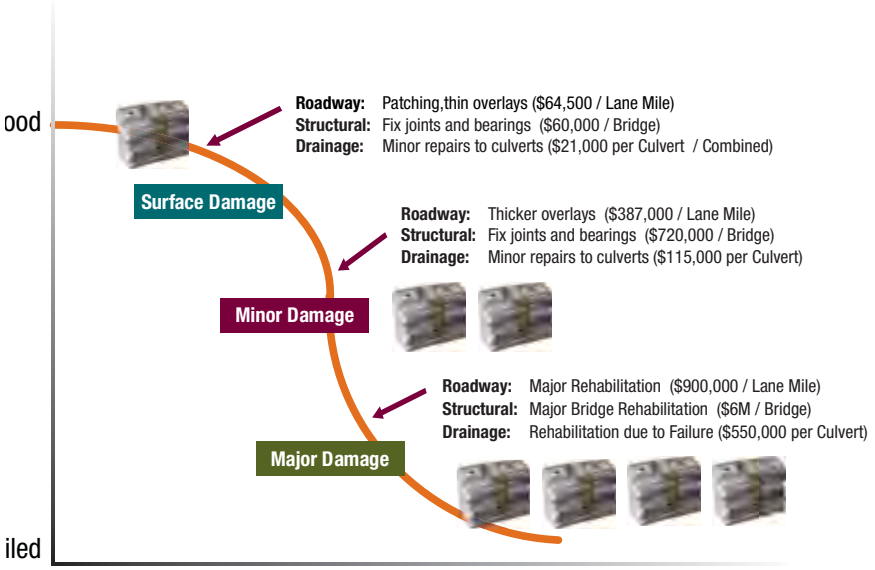
The need to preserve our transportation assets adequately was brought to widespread popular attention after the Minnesota I-35W bridge collapse during the summer of 2007. We must recognize that our roadway network and

transit systems developed over the past decades are aging. These regional assets represent hundreds of billions of dollars of investments that must be protected in order to serve us and future generations. Without these assets, or even a portion of these assets, the region's mobility would be significantly compromised.

Unfortunately, our region's roadways, especially the State Highway System that is owned and operated by Caltrans, have not been maintained adequately. Caltrans reports that 28 percent of its pavement requires rehabilitation (based on 2005 statistics). Regional arterial studies have concluded similar needs.

Deferred maintenance leads to higher costs, as shown in Figure 5. Whereas pavement surface damage requires an investment of $64,000 per lane mile to bring it to a state of good repair, the costs escalate significantly if these investments are not secured in a timely manner. In fact, the costs for minor damage repair escalate more than fivefold to $387,000, and the costs for major damage repair escalate to an astronomical $900,000 per lane mile.

FIGURE 5 PRESERVATION COST-EFFECTIVENESS



The Baseline 2035 System

SYSTEM DESCRIPTION

SCAG has assessed the future transportation system performance under the assumption that the Baseline projects committed in the Regional Transportation Improvement Program (RTIP) will be completed. Examples of major Baseline projects include:

- The Brawley Bypass in Imperial County
- HOV lanes on:
  - I-405 (from I-105 to US-101)
  - I-5 (from SR-134 to SR-118)
  - I-10 (from I-605 to SR-57/I-210)

- SR-60 (from I-605 to SR-57)
- SR-14 (from Escondido Cyn to Ave P-8) in Los Angeles County

- Mixed flow and HOV lanes on:
  - I-5 (from SR-91 to the LA County Line) in Orange County
  - I-215 (from I-10 to I-210) and completion of the I-210 freeway in San Bernardino County
- HOV lanes on:
  - I-215 (from SR-60/SR-91/I-215 to SR-60/I-215 east junction)
  - SR-60 (from I-15 to Valley Way and from I-215 to Redlands Blvd) in Riverside County
- Mixed flow lanes on:
  - SR-23 (from SR-118 to US-101)
- Improvements to the US-101/SR-23 interchange in Ventura County.

Table 6 provides a summary of the number of miles added by Baseline improvements. The definition of the Baseline as well as a complete list of projects is discussed in further detail in the RTP Project List.

TABLE 6 BASELINE 2035 NETWORK SUMMARY AND CHANGE VS. BASE YEAR 2003 (TOTAL ALL FACILITIES)

County	Centerline Miles	Change	Lane Miles	Change
Imperial	1,710	+15	3,861	+123
Los Angeles	7,577	+107	26,648	+413
Orange	2,046	+40	8,821	+366
Riverside	3,296	+49	9,645	+319
San Bernardino	5,388	+59	14,616	+560
Ventura	977	+1	3,033	+58
Region	**20,994**	**+270**	**66,624**	**+1,839**

Note: Lane miles shown are for the AM Peak Period.

DECLINING MOBILITY

Despite the Baseline improvements made through 2035, the roadway system performance is still projected to deteriorate. Per capita data in this section is based on the projected Baseline AVO for each county and the region as a whole (Table 7).

TABLE 7 BASELINE 2035 AVERAGE VEHICLE OCCUPANCY

County	AVO
Imperial	1.50
Los Angeles	1.48
Orange	1.42
Riverside	1.49
San Bernardino	1.49
Ventura	1.41
Region	**1.47**

As seen in Table 8, daily VMT will increase regionwide by 155 million miles from the Base Year 2003 scenario, with most of it occurring in Los Angeles, Riverside, and San Bernardino Counties. Total delay will double, while delay per capita will increase by 50% to nearly 30 minutes. On a per capita basis, those in Imperial, Riverside, and San Bernardino Counties will experience the greatest delay increase; Riverside County's 27-minute increase is greater than the overall daily per capita delay for three other counties, and is accompanied by a speed decrease of 13 mph, the greatest in the region. Still, those in Los Angeles County will continue to experience the lowest average travel speeds (25 mph), followed closely by travelers in Orange County.

TABLE 8 BASELINE 2035 DAILY VMT, VHT, DELAY, AND SPEED BY COUNTY AND CHANGE VS. BASE YEAR 2003

County	VMT	Change	VHT	Change	Delay (hours)	Change (hours)	Delay per capita (minutes)	Change (minutes)	Speed (mph)	Change (mph)
Imperial	15,297,000	+10,355,000	376,000	+275,000	85,000	+77,000	23.8	+19.3	40.7	-8.5
Los Angeles	264,454,000	+48,079,000	10,590,000	+2,689,000	4,217,000	+1,541,000	30.4	+7.1	25.0	-2.4
Orange	85,287,000	+14,829,000	3,055,000	+740,000	1,093,000	+407,000	25.4	+6.2	27.9	-2.5
Riverside	87,955,000	+43,946,000	3,497,000	+2,344,000	1,619,000	+1,358,000	40.1	+26.8	25.2	-13.0
San Bernardino	96,252,000	+42,011,000	3,088,000	+1,696,000	1,093,000	+816,000	31.1	+17.9	31.2	-7.8
Ventura	23,684,000	+5,074,000	803,000	+268,000	281,000	+155,000	23.4	+10.1	29.5	-5.3
Region	**572,928,000**	**+164,294,000**	**21,407,000**	**+8,012,000**	**8,387,000**	**+4,355,000**	**30.7**	**+10.8**	**26.8**	-3.7

Numbers may not add due to rounding.

Table 9 shows a regionwide increase in travel time for the average home-based work trip in the AM Peak Period, although the average travel distance will remain essentially unchanged. Los Angeles and Riverside Counties will experience an increase in travel time, while all counties except Los Angeles will see a decrease in average travel distance.

TABLE 9 BASELINE 2035 HOME-BASED WORK TRIP AVERAGE STATISTICS AND CHANGE VS. BASE YEAR 2003 | AM PEAK

County	Time (minutes)	Change (minutes)	Distance (miles)	Change (miles)
Imperial	12.23	-0.63	7.19	-1.56
Los Angeles	32.12	+4.21	13.41	+0.93
Orange	24.11	-0.16	11.28	-0.60
Riverside	34.11	+1.30	14.76	-3.36
San Bernardino	32.37	-3.52	14.92	-5.19
Ventura	23.61	-2.56	12.16	-2.29
Region	**30.35**	**+2.12**	**13.26**	**-0.41**

Note: Numbers may not add due to rounding.

By 2035, there will be a significant decrease in the daily speeds for each facility type, despite the completion of Baseline improvements. Furthermore, there will be increases in VMT, VHT, and delay for every type of roadway.

TABLE 10 BASELINE 2035 DAILY VMT, VHT, DELAY, AND SPEED BY FACILITY TYPE AND CHANGE VS. BASE YEAR 2003

Facility Type*	VMT	Change	VHT	Change	Delay (hours)	Change (hours)	Speed (mph)	Change (mph)
Freeway (MF)* & Toll	246,223,000	+49,836,000	7,012,000	+2,047,000	3,251,000	+1,300,000	35.1	-4.4
Freeway (HOV)*	24,255,000	+14,730,000	722,000	+479,000	343,000	+248,000	33.6	-5.6
Arterial	207,782,000	+61,815,000	8,510,000	+2,997,000	2,922,000	+1,546,000	24.4	-2.1
Collector	31,748,000	+19,090,000	1,500,000	+1,032,000	612,000	+517,000	21.2	-5.9
Ramp	15,941,000	+2,686,000	1,773,000	+825,000	1,258,000	+743,000	9.0	-5.0
Centroid Connector*	46,979,000	+16,136,000	1,890,000	+632,000	N/A	N/A	N/A	N/A
Region	**572,928,000**	**+164,294,000**	**21,407,000**	**+8,012,000**	**8,387,000**	**+4,355,000**	**26.8**	-3.7

* Notes: MF for mixed flow or general purpose lanes, as opposed to HOV, high occupancy vehicle or carpool lanes. Centroid connectors are intra-zonal links used in regional travel demand models such as SCAG's to allocate trips from zone centroids to the highway network.
Numbers may not add due to rounding.

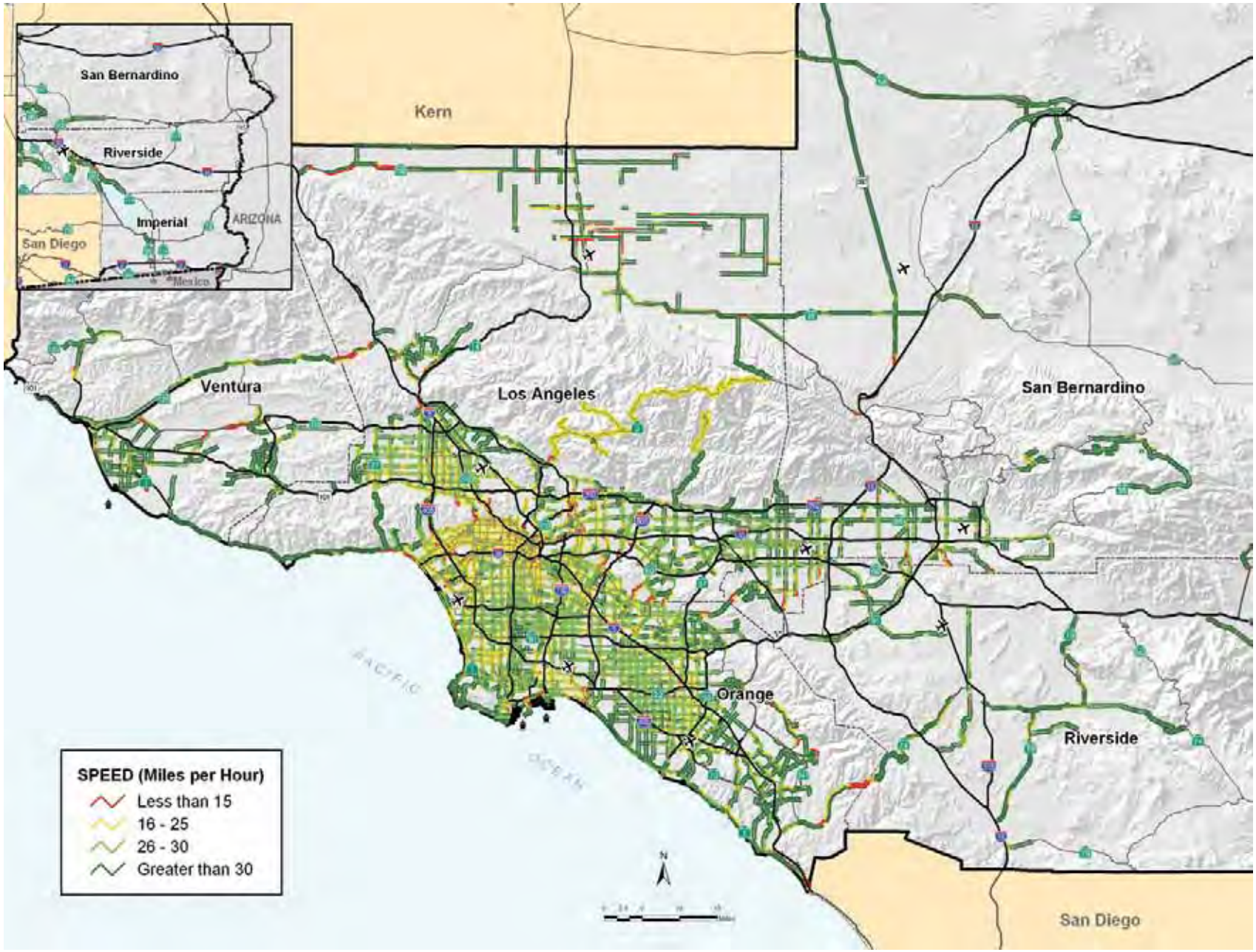
On the following pages, Exhibits 8 through 11 show the projected Baseline average speeds of the freeway and arterial system during the AM and PM Peaks. Exhibits 12 and 13 show the projected decline in speed between the Base Year 2003 and Baseline 2035 scenarios on our highway system.

EXHIBIT 8 BASELINE 2035 FREEWAY SPEED I AM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 9 BASELINE 2035 ARTERIAL SPEED | AM PEAK



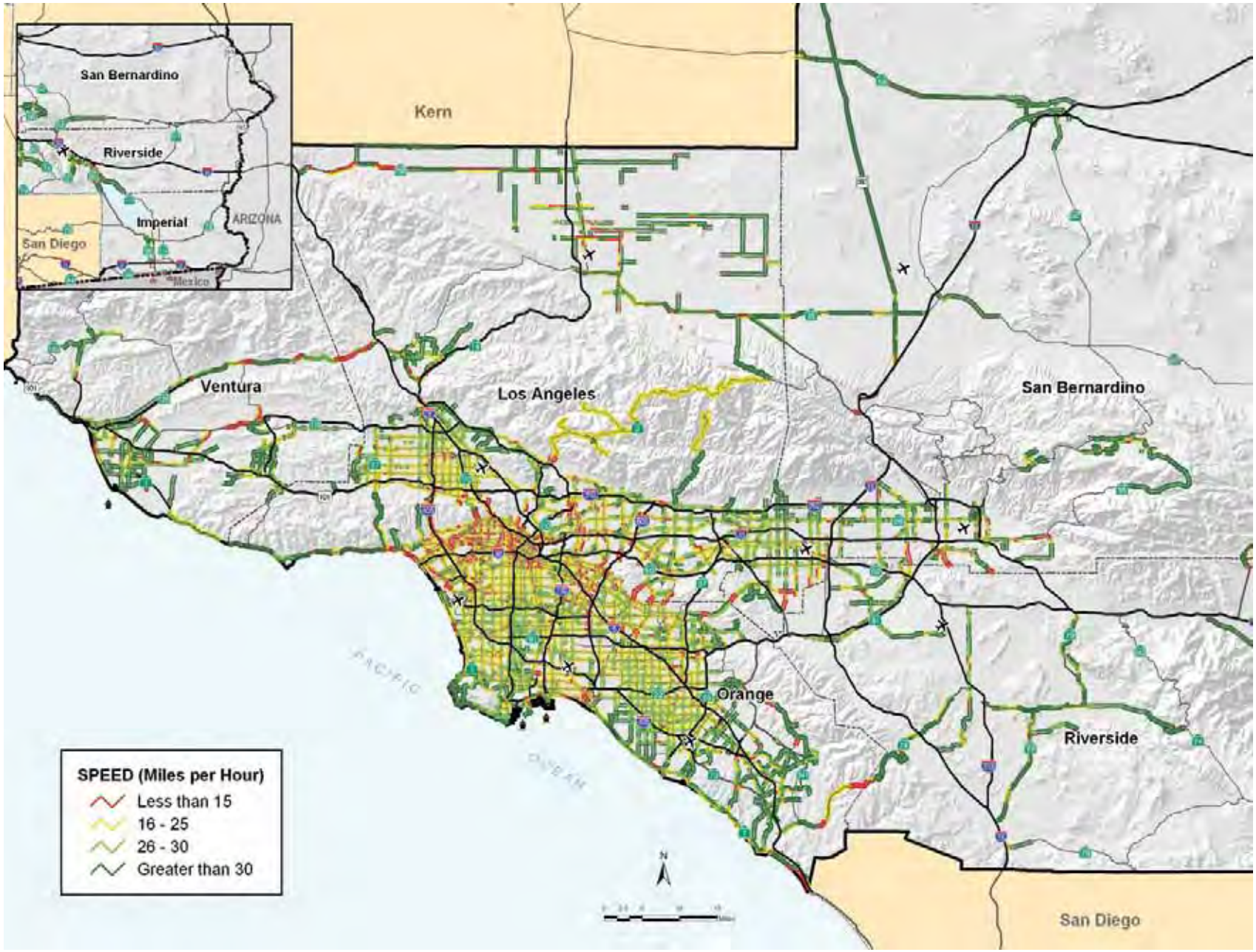
Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 10 BASELINE 2035 FREEWAY SPEED | PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 11 BASELINE 2035 ARTERIAL SPEED | PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatla

EXHIBIT 12 BASE YEAR 2003 VS. BASELINE 2035 SPEED CHANGES AM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 13 BASE YEAR 2003 VS. BASELINE 2035 SPEED CHANGES I PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

DECLINING ACCESSIBILITY

As Figures 6 and 7 show, regionwide accessibility seems to remain mostly unaffected by the Baseline improvements. The percent of the region's commute trips during the PM Peak period that can be completed in 45 minutes or less will drop slightly from 74 percent to 73 percent. The percentage of trips taking longer than 90 minutes is projected to approach 10 percent.

FIGURE 6 BASELINE 2035 AUTO HOME-BASED WORK TRIP CUMULATIVE DISTRIBUTION | PM PEAK

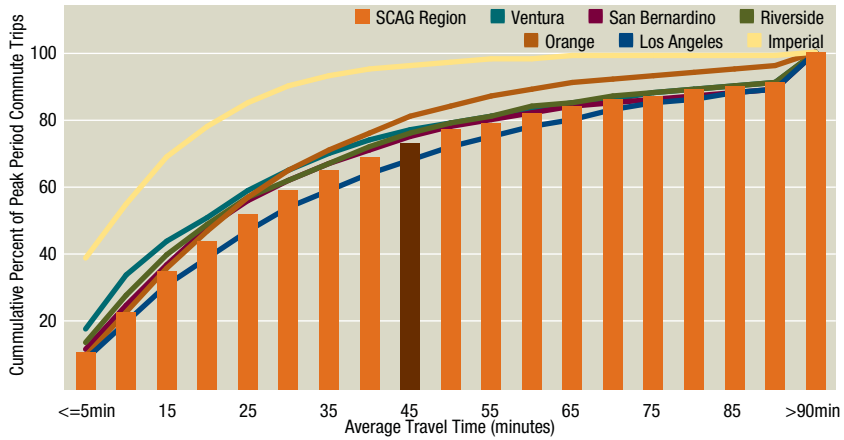
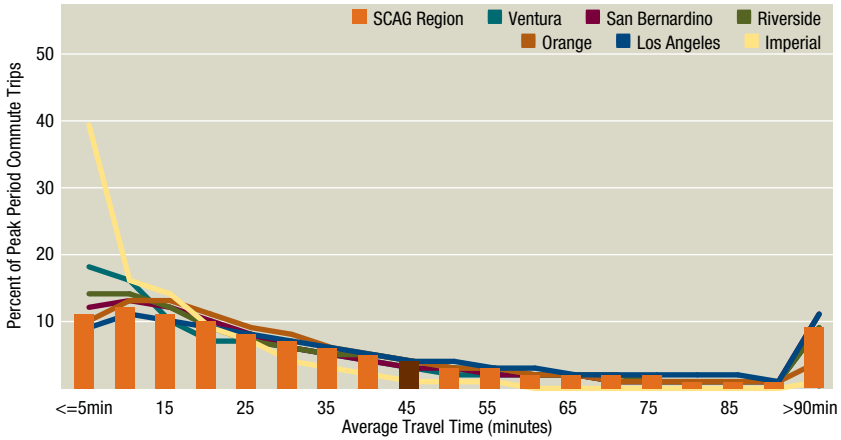


FIGURE 7 BASELINE 2035 AUTO HOME-BASED WORK TRIP DISTRIBUTION PM PEAK



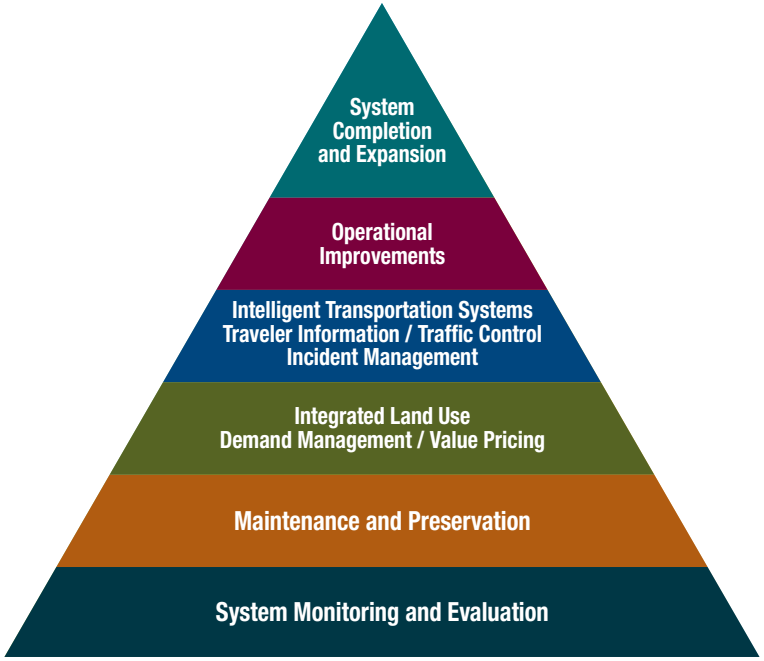
The Plan 2035 System

MANAGING OUR TRANSPORTATION SYSTEM WISELY

The region recognizes that maintaining and improving mobility will no longer depend solely on the ability to expand the multimodal transportation system. Instead, an integrated approach--based on the statewide GoCalifornia initiative--is needed to maximize mobility. Depicted in Figure 8, the five elements of the pyramid represent integrated strategies that work cooperatively to maximize mobility. The pyramid depicts the idea that transportation investments would have more impact if they are prioritized strategically as suggested. System monitoring and evaluation are the basic foundation upon which the other strategies are built. System expansion and completion will provide the desired mobility benefits to the extent that investments in, and implementation of, the strategies below it achieve progress. An improvement in mobility will occur when strategic investments in each of the elements are coordinated between the elements. The mobility pyramid provides the framework for the discussion of the RTP's transportation investment strategies.

Complementing our transportation investment philosophy is the performance measures approach utilized in developing this Plan. While the pyramid approach ensures that our funding priorities are clear and rational, performance measures ensure that the best performing projects are included in the Plan for funding.

FIGURE 8 MOBILITY PYRAMID



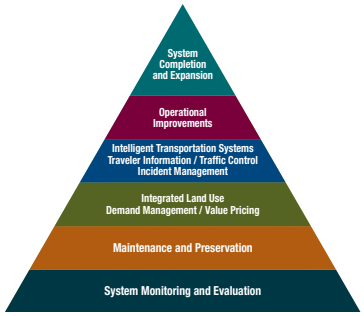
SYSTEM MONITORING AND EVALUATION

In order to be effective system managers, we must have an in-depth understanding of how our system performs and why it performs that way. For instance, we all know congestion is a problem in the region. But we must also be able to quantify congestion and understand its various causes. Only by understanding these causes can we identify the optimal mix of strategies and projects that yield the highest returns on the region's investments. The same holds true for transit, goods movement, and aviation.

The base of the mobility pyramid, entitled "System Monitoring and Evaluation," is the foundation of sound system management. It calls for the use of performance measures to track and monitor the progress of the transportation system so that the region can make informed decisions regarding transportation investments. Transportation professionals and decision-makers have recently committed to improving the region's ability to properly fund the investments needed to comprehensively monitor and evaluate system performance. These investments include detection, closed circuit television systems, bus global positioning systems, and automatic ridership counting systems. Although funding is modest for these activities, they lead to more informed decisions. Further discussion of system monitoring is contained in Chapter VI of the RTP main document.

As we move forward, our focus will evolve into a comprehensive system management approach, which aims to protect, maximize the productivity of, and strategically expand our transportation system.

PROTECTING OUR REGION'S TRANSPORTATION ASSETS



MAINTENANCE AND PRESERVATION

Over the decades, the region has invested hundreds of billions of dollars in our multimodal transportation system. The system is now aging and requires immediate attention. Preserving our assets is a critical priority of this RTP.

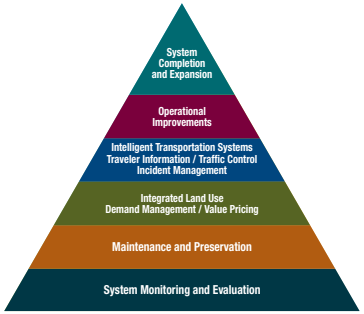
In a sense, the region must make up for past funding shortfalls. As discussed in Chapter II of the RTP, roadway expenditures have not kept up with demand over the last three decades. As a result, we have not properly funded roadway preservation needs. The recent passage of the Infrastructure Bond injected much needed funding to highway preservation. However, SCAG estimates that an additional $30 billion is required to bring the system into a comprehensive state of adequate repair.

SCAG also estimates that an additional $10 billion is required for arterials and transit preservation needs. The subsequent shortfall for highway, arterial, and transit preservation needs totals $40 billion. Deferring maintenance only increases this shortfall over time.

Recognizing that every dollar expended today to address this shortfall would save much more in the future, the region committed $8 billion of new funding to preservation, thereby addressing at least 20 percent of preservation needs. As more funding becomes available, additional commitments will be made. These additional investments will ensure that over the next thirty years, our infrastructure will be in a better condition than it is today. This also means that user costs (e.g., vehicle maintenance costs) will decline compared to today.

SCAG will continue to work with its stakeholders, particularly county transportation commissions and Caltrans, to prioritize funding for preservation and maintenance.

Strategies found in the next several layers of the pyramid prior to System Completion and Expansion are discussed in other 2008 RTP Supplemental Reports.



SYSTEM COMPLETION AND EXPANSION

Major categories of highway improvements included in the 2008 RTP are High Occupancy Vehicle (HOV) lanes and connectors, mixed flow (or general purpose) lanes, toll facilities and High Occupancy Toll (HOT) lanes, and strategic arterial improvements.

A significant number of system expansion projects have already been committed through SCAG's RTIP for the highway network. These priority projects close critical gaps in the system, relieve significant bottlenecks, and address inter-county travel needs. Recent extraordinary increases in the costs of concrete and steel have resulted in substantial project cost increases and forced implementing agencies to piece together enough additional funding to deliver the improvements. Voter approval of Proposition 1B in November 2006 brought much-needed revenue to the table, through programs such as the Corridor Mobility Improvement Account (CMIA). Much of the additional

improvements recommended in the 2008 RTP, beyond those projects that are already in the delivery pipeline, have been committed through local sales tax revenues such as those recently approved by voters in Orange, Riverside, and San Bernardino Counties. The proposed projects and strategies are based on a performance framework established for the 2004 RTP and updated for the 2008 RTP.

Recently completed Regionally Significant Transportation Investment Studies (RSTIS) have helped to identify additional corridor improvements needed in the SCAG Region. These corridor projects provide capacity enhancements and mobility improvements to address rapidly growing inter-county travel, often on already congested facilities with few alternatives. These projects have been incorporated into the RTP, and they will depend in part on financial contributions from the private sector for their construction, operation, and maintenance.

Table 11 provides a summary of the number of miles added by Plan improvements and the number of miles added over Baseline improvements.

TABLE 11 PLAN 2035 NETWORK SUMMARY AND CHANGE VS. BASELINE 2035 (TOTAL ALL FACILITIES)

County	Centerline Miles	Change	Lane Miles	Change
Imperial	1,714	+4	3,951	+90
Los Angeles	7,761	+184	27,711	+1,063
Orange	2,063	+17	9,012	+191
Riverside	3,597	+301	12,063	+2,419
San Bernardino	5,642	+254	16,692	+2,076
Ventura	987	+10	3,131	+98
Region	**21,764**	**+771**	**72,561**	**+5,937**

Note: Lane miles shown are for the AM Peak Period.

HOV GAP CLOSURES AND CONNECTORS

Southern California has invested heavily in HOV lanes, producing one of the nation's most comprehensive HOV networks and highest rideshare rates. The HOV projects proposed in the RTP focus on strategic gap closures and freeway-to-freeway direct HOV connectors to complete the system. The HOV lane network could eventually serve as the backbone of a regional HOT lane or managed lane system. Determining the feasibility of such a regional system will require further study and discussion before inclusion in a future RTP update.

In 2007, the new SR-22 HOV lanes in Orange County opened as the first continuous-access HOV lanes in Southern California. Monitoring and evaluation of these HOV lanes will conclude in 2008 and transportation officials will decide whether the continuous access will be made permanent.

The HOV lane system is a regional network and operations should be coordinated across jurisdictional boundaries to optimize performance and minimize confusion. SCAG supports further study and evaluation of these proposed operational changes to the HOV lane system to fully understand the mobility, safety, and air quality impacts, as well as any implications for a potential regional HOT lane system.

Projects in the Pipeline

The RTIP includes HOV gap closures and connectors as shown in Exhibit 14.

- I-405 in the Westside of Los Angeles
- SR-91 in Riverside
- I-5 and SR-14 connecting the San Fernando Valley to North Los Angeles County
- I-5 and I-605 connecting Los Angeles and Orange Counties
- I-10 and SR-60 connecting Los Angeles and San Bernardino Counties
- SR-60 and I-215 connecting Riverside and San Bernardino Counties
- US-101 connecting Ventura and Santa Barbara Counties

- HOV connectors at I-5/SR-14, SR-57/SR-60, SR-22/I-405, I-405/I-605, and SR-60/I-215

Additional Investments

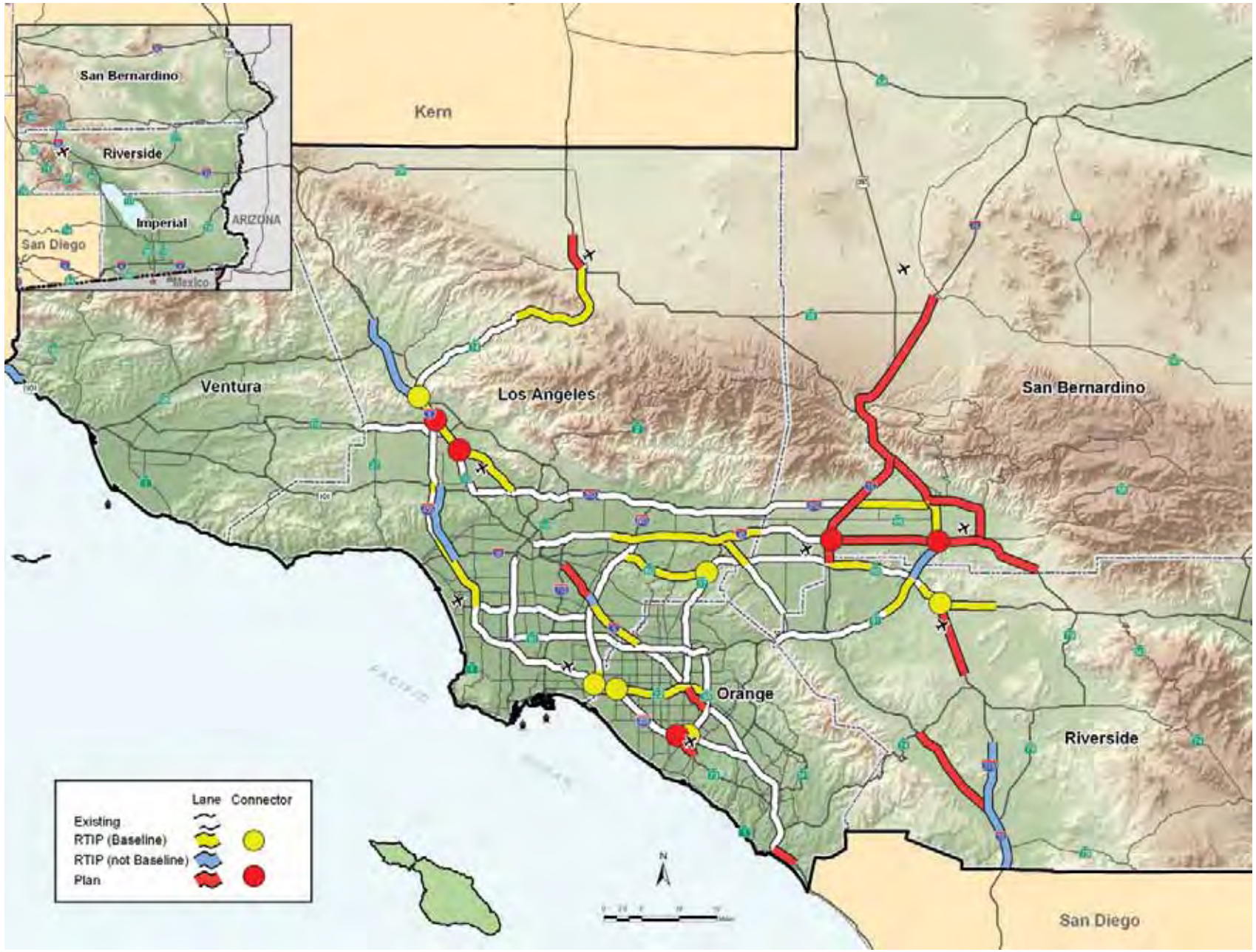
The 2008 RTP calls for additional investments to extend the HOV network and construct additional connectors, as shown in Table 12 and in Exhibit 14. It invests close to $8 billion for HOV improvements through 2035. These gap closures and connectors help users to maximize the overall system performance by minimizing weaving conflicts and maintaining travel speeds.

TABLE 12 HOV AND HOV CONNECTOR PROJECTS

Project	County	Implementation Schedule*
I-5 (SR-19 to I-710)	Los Angeles	2035
SR-14 (Ave P-8 to Ave L)	Los Angeles	2030
I-5 / I-170 connector	Los Angeles	2030
I-5 / I-405 connector	Los Angeles	2030
I-5 (Avenida Pico to Coast Hwy)	Orange	2018
I-5 (SR-55 to SR-57)	Orange	2035
SR-73 (I-405 to MacArthur)	Orange	2035
SR-73 / I-405 connector	Orange	2035
I-15 (I-215 to SR-74)	Riverside	2020
I-215 (Nuevo to Box Springs)	Riverside	2020
I-10 (Haven to Ford)	San Bernardino	2020
I-10 (Ford to Riverside County)	San Bernardino	2030
I-10 / I-15 connector	San Bernardino	2030
I-10 / I-215 connector	San Bernardino	2030
I-15 (Riverside County to I-215)	San Bernardino	2020
I-15 (I-215 to SR-18)	San Bernardino	2020
SR-210 (I-215 to I-10)	San Bernardino	2020
I-215 (SR-210 to I-15)	San Bernardino	2030

* Represents the Plan network year for which a project was analyzed for the RTP modeling and regional emissions analysis

EXHIBIT 14 HOV GAP CLOSURES AND CONNECTORS



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

MIXED FLOW

Since mixed flow lanes carry more traffic than any other component of our transportation system, mixed flow capacity enhancements are necessary to address traffic bottlenecks and relieve congestion on heavily traveled corridors. This is especially true in areas outside of the urban core where transit service and the HOV network are not fully developed. The majority of mixed flow projects in the pipeline and proposed in the 2008 RTP are located outside of Los Angeles County.

Projects in the Pipeline

The RTIP contains mixed flow lane additions on the following routes (see Exhibit 15).

- Brawley Bypass in Imperial County
- I-5, I-405, and SR-57 connecting Los Angeles and Orange Counties
- SR-91 connecting Orange and Riverside Counties
- CETAP Mid-County Parkway in Riverside County
- SR-60 and I-215 connecting Riverside and San Bernardino Counties
- I-15 and I-215 connecting Riverside and San Diego Counties
- US-395 in northern San Bernardino County
- Completion of the 210 freeway in San Bernardino County
- SR-23, SR-118, and US-101 in Ventura County

Additional Investments

The 2008 RTP invests $26.2 billion through 2035 for mixed flow improvements and interchange ramps. Major mixed flow improvements are listed in Table 13 and shown in Exhibit 15.

TABLE 13 MIXED FLOW HIGHWAY PROJECTS

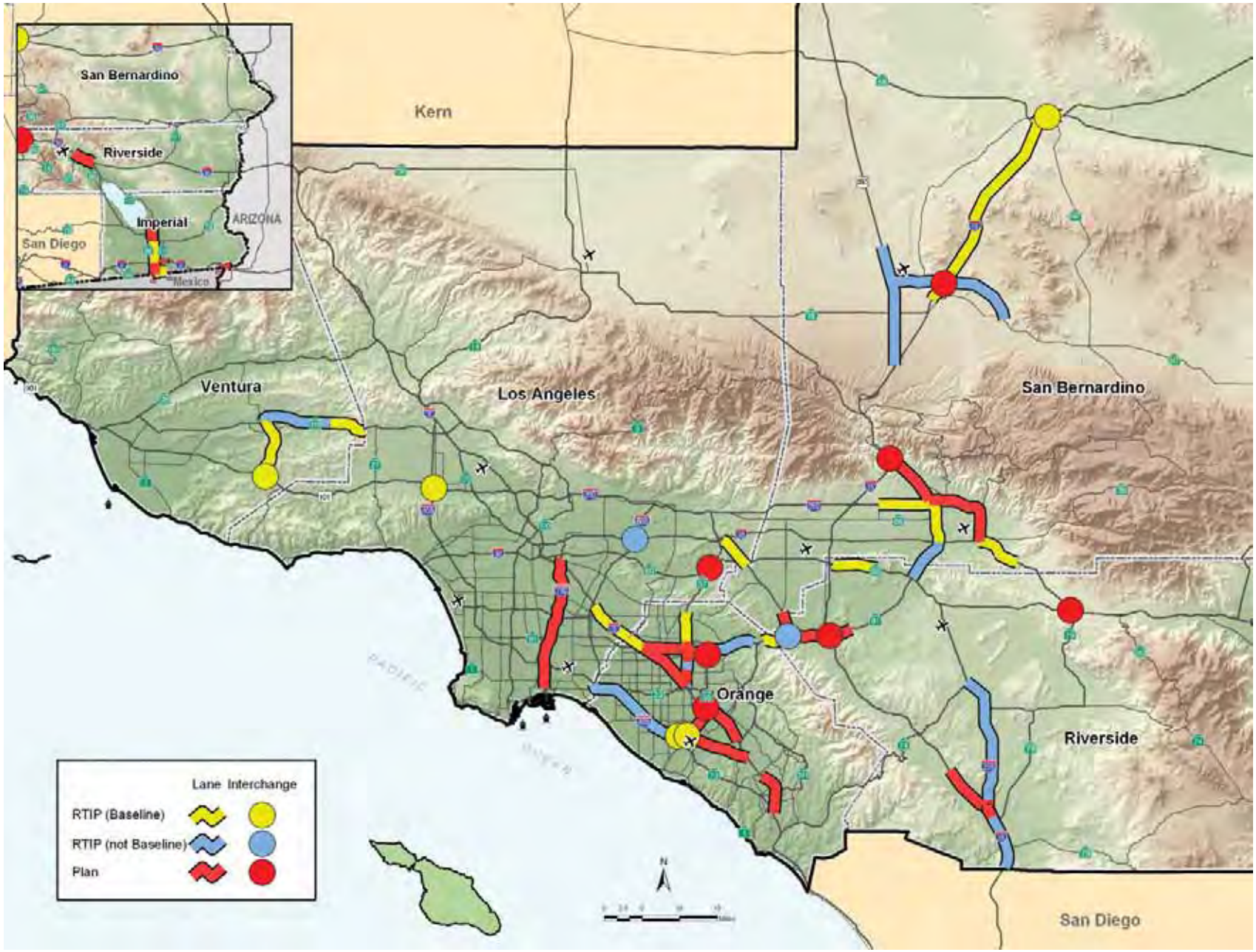
Project	County	Implementation Schedule*
SR-111 (SR-98 to I-8)	Imperial	2030
I-710 (Ocean Blvd in Long Beach to intermodal railroad yards in Commerce/Vernon)	Los Angeles	2020
I-5 (SR-73 to El Toro)	Orange	2035
I-5 (SR-133 to SR-55)	Orange	2030
I-5 (SR-57 to SR-91)	Orange	2030
SR-55 (I-405 to SR-22)	Orange	2030
SR-57 (Orangewood to Katella)	Orange	2018
SR-57 (Lincoln to Orangethorpe)	Orange	2020
SR-91 westbound (SR-57 to I-5)	Orange	2018
SR-91 eastbound (SR-57 to SR-55)	Orange	2023
SR-91 westbound (SR-241 to Gypsum Cyn)	Orange	2018
I-405 (I-5 to SR-55)	Orange	2035
I-10 (Monterey to Dillon)	Riverside	2030
I-15 (Bundy Cyn to I-215)	Riverside	2014
SR-71 (SR-91 to San Bernardino County)	Riverside	2035
SR-91 (Pierce to Orange County)	Riverside	2018
I-215 (Murrieta Hot Springs to I-15)	Riverside	2014
SR-210 (I-215 to I-10)	San Bernardino	2020
I-215 (SR-30 to I-15)	San Bernardino	2030

* Represents the Plan network year for which a project was analyzed for the RTP modeling and regional emissions analysis

TOLL AND HIGH OCCUPANCY TOLL (HOT) LANE CORRIDORS AND FACILITIES

The 2008 RTP proposes to expand upon the existing HOT lane and toll road system in Orange County to address the congested commuter corridor between housing-rich Riverside County and job-rich Orange County. Additionally, improvements to several major corridors elsewhere in the region are proposed to be financed by tolls.

EXHIBIT 15 MIXED FLOW LANE ADDITIONS



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

Projects in the Pipeline

The RTIP includes lane additions to each of the toll roads in Orange County and the construction of the Foothill South corridor connecting to I-5 in San Diego County (see Exhibit 16).

- SR-73 – San Joaquin Hills Corridor
- SR-133/SR-241/SR-261 – Eastern Transportation Corridor
- SR-241 – Foothill Transportation Corridor North
- SR-241 – Foothill Transportation Corridor South (extension to I-5)

Additional Investments

The recommendations from several recent major RSTIS efforts examining inter-county travel have been considered in the development of the 2008 RTP. First, the Riverside County to Orange County study completed in 2006 identifies a comprehensive set of improvements that includes extending the SR-91 Express Lanes into Riverside County and providing direct connections to and from the Express Lanes. Additionally, the study identifies two major new facilities, one parallel to the SR-91 and one on a new alignment further south. Secondly, a North Los Angeles County study completed in 2004 recommended a new east-west facility called the High Desert Corridor to connect the high-growth areas of Lancaster/Palmdale and Victor Valley. While the RSTIS provides input to the RTP on a locally preferred strategy, SCAG recognizes and respects the local processes that must continue to solidify community consensus and further refine each project.

In 2006, MTA completed a technical feasibility study examining the potential for constructing the SR-710 Gap Closure between the I-10 and I-210 freeways as a tunnel. SCAG has further assessed the potential for the Gap Closure to be financed in part through a public-private partnership. A number of tolling structures were considered in the financial analyses, including both flat rate and variable toll rate structures. SCAG anticipates that structuring financing alternatives with lower-cost Private Activity Bonds (PABs) and 30- to 50-year term bonds could help to improve shareholders' internal rate of return.

Additionally, SCAG's current evaluations to date indicate that the project is feasible from a construction standpoint. Two 46-foot inner diameter tunnels could provide two levels of lanes. The upper level could include three lanes for passenger vehicles; and two lanes in the middle level could accommodate truck and high occupancy vehicles. The SR-710 Gap Closure is estimated to cost $4.6 billion.

The 2008 RTP invests $25.6 billion for toll and HOT lane facilities. These additional investments are listed in Table 14 and shown in Exhibit 16.

TABLE 14 HOT LANES AND TOLL FACILITIES

Project	County	Implementation Schedule*
SR-710 Tunnel Gap Closure (710/Valley Blvd to California Blvd/Pasadena Ave)	Los Angeles	2020
High Desert Corridor (I-5 to US-395)	Los Angeles / San Bernardino	2030
SR-91 / SR-241 HOT connectors	Orange	2020
CETAP Riverside County to Orange County (Corridor A parallel to SR-91 from I-15 to SR-241; Corridor B from I-15/Mid-County Pkwy to SR-133/SR-241)	Orange / Riverside	2035
CETAP Riverside County to Orange County Corridor B (I-15/Mid-County Pkwy to SR-133/SR-241) Preliminary Engineering and Environmental Impact Report/Statement	Orange / Riverside	PE/EIR/EIS ONLY
SR-91 Express Lanes (extend east to I-15)	Riverside	2020
I-15 HOT Lanes (SR-74 to San Bernardino County)	Riverside	2020
SR-91 / I-15 HOT connectors	Riverside	2020

* Represents the Plan network year for which a project was analyzed for the RTP modeling and regional emissions analysis

ARTERIAL IMPROVEMENTS

Local streets and roads account for over 80 percent of the total road network and carry a high percentage of total traffic. In many cases arterials serve as alternate parallel routes to congested freeway corridors. In mature urban areas there is often little right-of-way available for capacity enhancements. In the fast-growing suburban and exurban parts of the region, local jurisdictions ensure that roadway capacity improvements keep pace with new developments by implementing mitigation fees. In all parts of the region, operational and technological improvements have the potential to maximize system productivity in a more cost-effective way than simply adding capacity. Such strategic improvements include spot widening, signal prioritization, driveway consolidation and relocation, and grade separations at high-volume intersections. The 2008 RTP invests approximately $17.1 billion for arterial system improvements as shown in Table 15.

TABLE 15 ARTERIAL INVESTMENT SUMMARY

County	Investment (in billions, nominal dollars through 2035)
Imperial	$1.0
Los Angeles	$1.5
Orange	$2.0
Riverside	$6.9
San Bernardino	$4.8
Ventura	$0.9
Regional Total	**$17.1**

Note: Numbers may not add due to rounding

SOUNDWALLS

Soundwalls are a regional issue associated primarily with freeway improvements. Federal and state laws require construction of noise barriers along freeways under the Community Noise Abatement Program and as part of new freeway construction, and widening or capacity enhancement projects on existing freeways. Accordingly, all new freeway projects and freeway widening projects will include soundwall costs.

IMPROVED MOBILITY

Although the Plan improvements are still unable to improve the region's mobility over the Base Year scenario, it produces benefits when compared to the Baseline scenario. Per capita data in this section is based on the projected Plan AVO for each county and the region as a whole (Table 16).

TABLE 16 PLAN 2035 AVERAGE VEHICLE OCCUPANCY

County	AVO
Imperial	1.51
Los Angeles	1.49
Orange	1.43
Riverside	1.50
San Bernardino	1.50
Ventura	1.41
Region	**1.48**

EXHIBIT 16 HOT LANES AND TOLL FACILITIES



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatla

As seen in Table 17, the Plan 2035 scenario will actually reduce VMT by about 15 million miles over the Baseline 2035 scenario, with each county except Orange and Riverside Counties experiencing reductions. Daily VHT will decrease in every county, and so will delay. Speeds will increase in every county, especially in Riverside and San Bernardino. Delay per capita will also decrease significantly in these counties when compared to the Baseline scenario, reflecting the effectiveness of Plan improvements to offset a portion of large per capita delay increases in the Inland Empire between the Base Year and Baseline scenarios.

Figure 9 provides a comparison of expected increases in average daily delay per capita between 2003 and 2035, as well as the delay decreases that the Plan 2035 improvements will bring over the Baseline 2035 improvements.

FIGURE 9 AVERAGE DAILY DELAY PER CAPITA - BASE YEAR 2003 VS. BASELINE 2035 VS. PLAN 2035

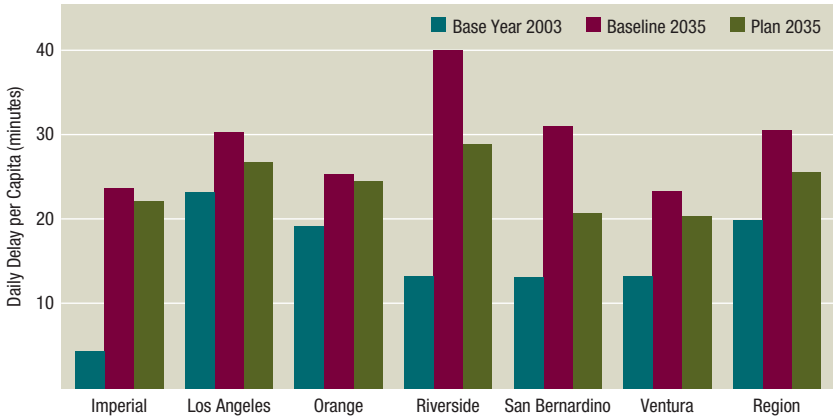


TABLE 17 PLAN 2035 DAILY VMT, VHT, DELAY, AND SPEED BY COUNTY AND CHANGE VS. BASELINE 2035

County	VMT	Change	VHT	Change	Delay (hours)	Change (hours)	Delay per capita (minutes)	Change (minutes)	Speed (mph)	Change (mph)
Imperial	15,288,000	-9,000	366,000	-10,000	78,000	-6,000	9.3	-1.9	44.9	+1.5
Los Angeles	262,159,000	-2,295,000	9,962,000	-628,000	3,712,000	-505,000	24.7	-3.5	26.5	+1.0
Orange	86,606,000	+1,319,000	2,990,000	-65,000	1,049,000	-44,000	23.6	-2.5	28.8	+1.2
Riverside	91,601,000	+3,646,000	3,084,000	-412,000	1,159,000	-461,000	23.3	-16.3	31.1	+6.3
San Bernardino	98,076,000	+1,824,000	2,718,000	-369,000	722,000	-370,000	20	-13.6	36.7	+6.1
Ventura	23,706,000	+22,000	767,000	-35,000	245,000	-35,000	19.5	-1.3	30.9	+0.5
Region	**577,436,000**	**4,508,000**	**19,887,000**	**-1,520,000**	**6,966,000**	**-1,421,000**	**23.3**	**-6.4**	**29.3**	**+2.4**

Numbers may not add due to rounding.

As seen in Table 18, the Plan scenario brings about a reduction in travel time for the average AM Peak home-based work trip in each county over the Baseline scenario, especially in Riverside County. However, commuters in all counties will drive longer distances to get to work, with the greatest average increase at 1 mile in Riverside County.

TABLE 18 PLAN 2035 HOME-BASED WORK TRIP AVERAGE STATISTICS AND CHANGE VS. BASELINE 2035 | AM PEAK

County	Time (minutes)	Change (minutes)	Distance (miles)	Change (miles)
Imperial	11.96	-0.27	7.36	+0.16
Los Angeles	31.32	-0.80	13.63	+0.22
Orange	23.65	-0.45	11.65	+0.37
Riverside	30.68	-3.43	15.75	+1.00
San Bernardino	30.70	-1.67	15.80	+0.88
Ventura	23.56	-0.06	12.48	+0.32
Region	**29.21**	**-1.15**	**13.69**	**+0.43**

Note: Numbers may not add due to rounding.

Delay will decrease for all types of roadways except HOV lanes, and speed will also increase on every type of roadway.

The following maps show the projected Plan average speeds of the freeway and arterial system during the AM and PM Peaks, and the projected improvement in speed between the Baseline 2035 and Plan 2035 scenarios on our highway system.

TABLE 19 PLAN 2035 DAILY VMT, VHT, DELAY, AND SPEED BY FACILITY TYPE AND CHANGE VS. BASELINE 2035

Facility Type*	VMT	Change	VHT	Change	Delay (hours)	Change (hours)	Speed (mph)	Change (mph)
Freeway (MF)*	252,321,000	+6,097,000	6,549,000	-463,000	2,695,000	-556,000	38.5	3.4
Freeway (HOV)*	28,080,000	+3,824,000	786,000	+64,000	348,000	+5,000	35.7	2.1
Arterial	207,001,000	-780,000	7,923,000	-588,000	2,437,000	-486,000	26.1	1.7
Collector	27,737,000	-4,011,000	1,261,000	-239,000	481,000	-131,000	22.0	0.8
Ramp	16,158,000	+217,000	1,529,000	-245,000	1,005,000	-253,000	10.6	1.6
Centroid Connector*	46,139,000	-840,000	1,839,000	-51,000	N/A	N/A	N/A	N/A
Region	**577,436,000**	**4,508,000**	**19,887,000**	**-1,520,000**	**6,966,000**	**-1,421,000**	**29.0**	**2.3**

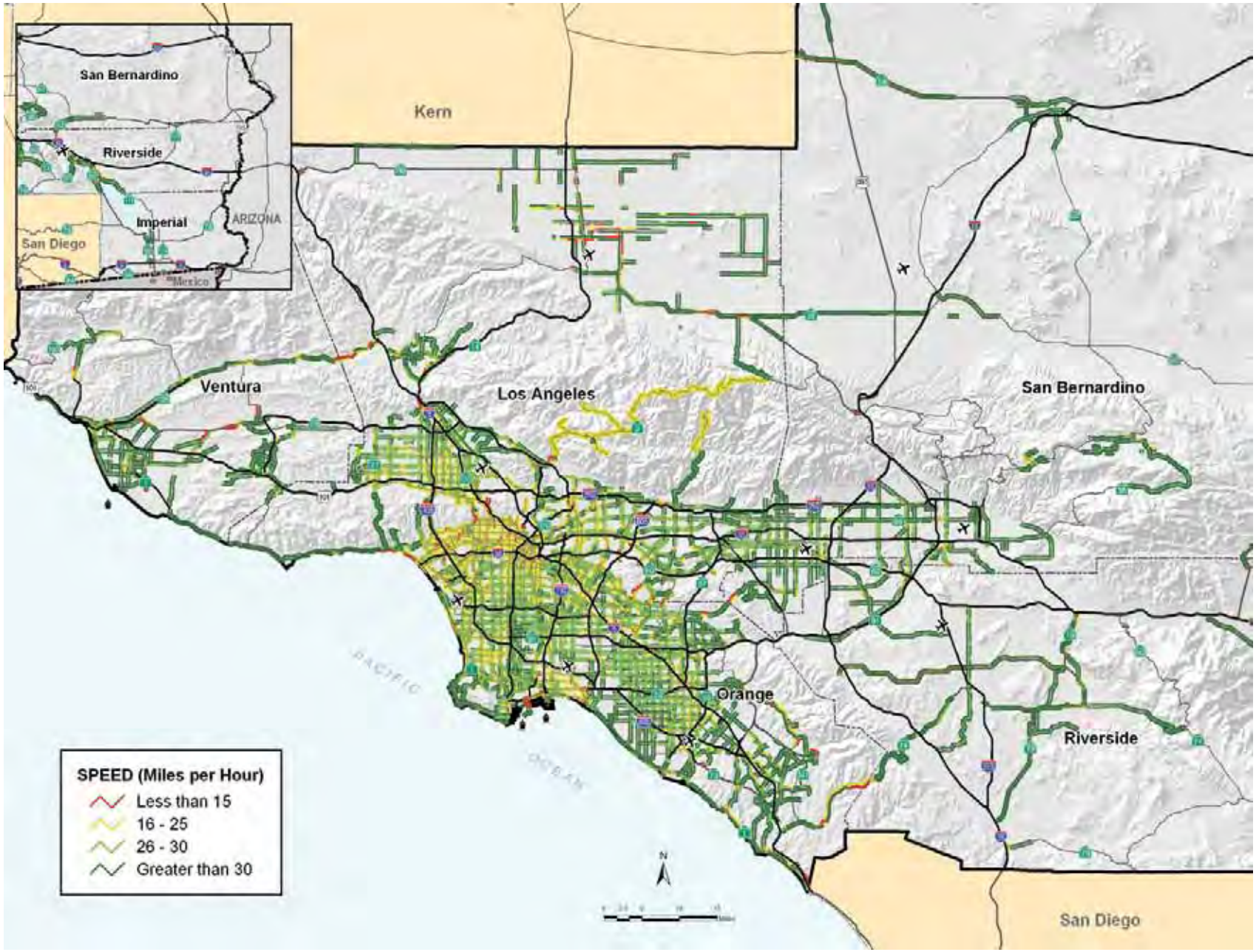
* Notes: MF for mixed flow or general purpose lanes, as opposed to HOV , high occupancy vehicle or carpool lanes. Centroid connectors are intra-zonal links used in regional travel demand models such as SCAG's to allocate trips from zone centroids to the highway network.
Numbers may not add due to rounding.

EXHIBIT 17 PLAN 2035 FREEWAY SPEED I AM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 18 PLAN 2035 ARTERIAL SPEED I AM PEAK



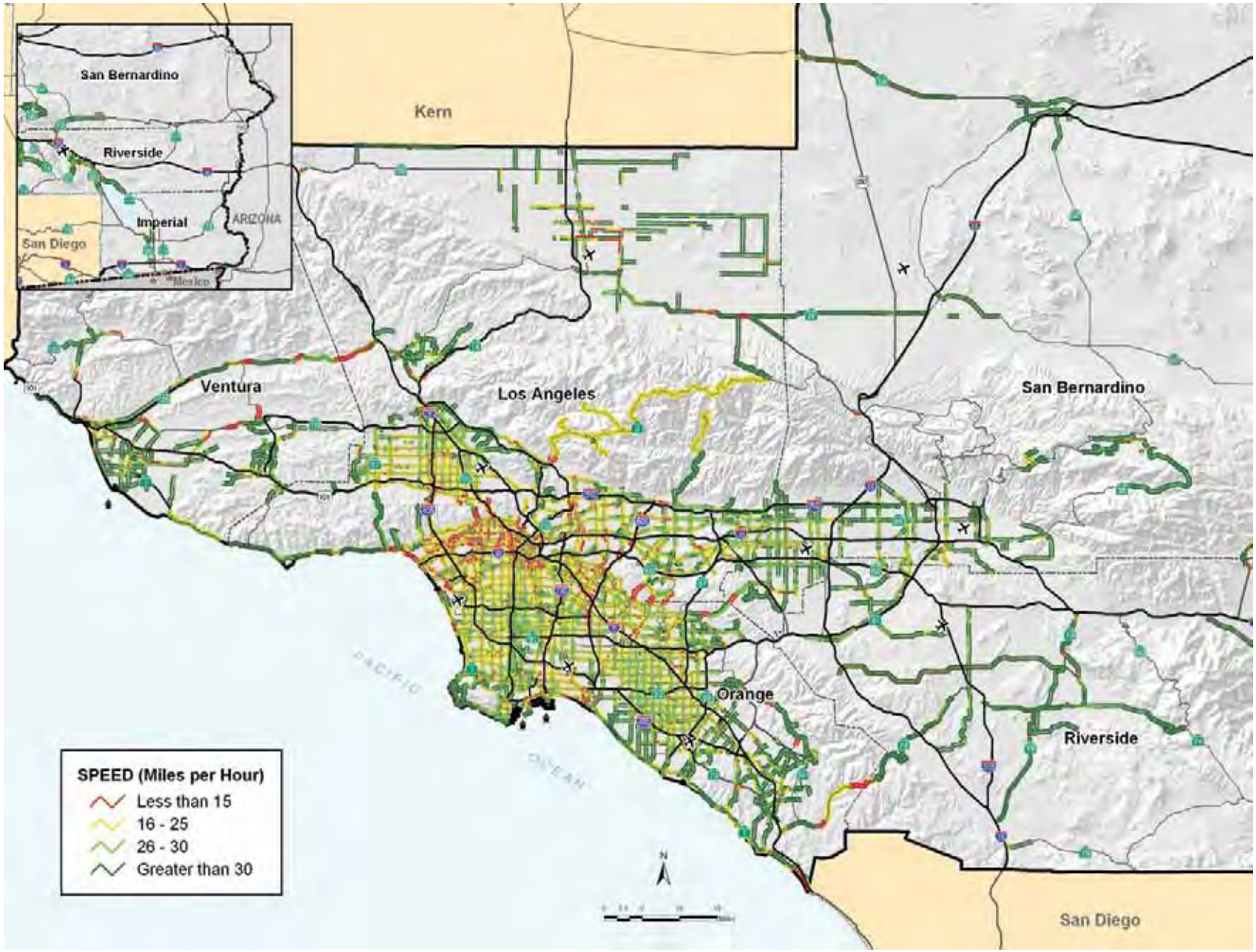
Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 19 PLAN 2035 FREEWAY SPEED | PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatla

EXHIBIT 20 PLAN 2035 ARTERIAL SPEED I PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 21 BASELINE 2035 VS. PLAN 2035 SPEED CHANGES AM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 22 BASELINE 2035 VS. PLAN 2035 SPEED CHANGES I PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

IMPROVED ACCESSIBILITY

The Plan 2035 system will bring about improvements in regional accessibility. Every county will see improvements in accessibility during the PM Peak Period not only over the Baseline 2035 scenario but also over the Base Year 2003 scenario (see Figure 12). Regionwide, the percent of the region's commute trips during the PM Peak period that can be completed in 45 minutes or less is expected to improve to 75 percent.

FIGURE 10 PLAN 2035 AUTO HOME-BASED WORK TRIP CUMULATIVE DISTRIBUTION | PM PEAK

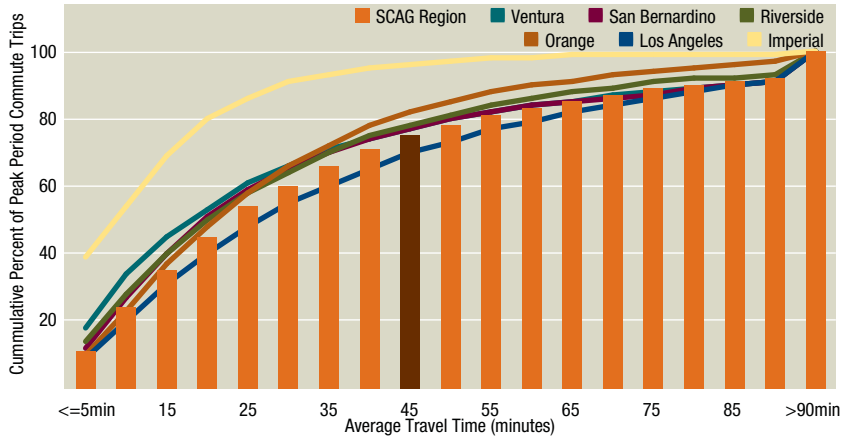


FIGURE 11 PLAN 2035 AUTO HOME-BASED WORK TRIP DISTRIBUTION PM PEAK

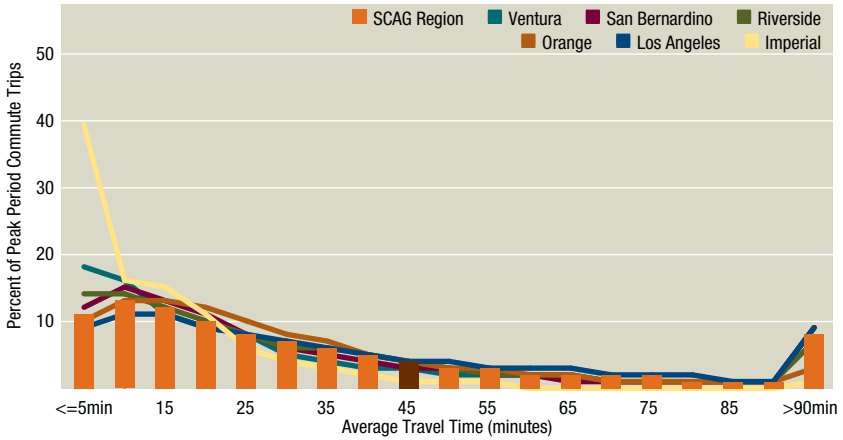
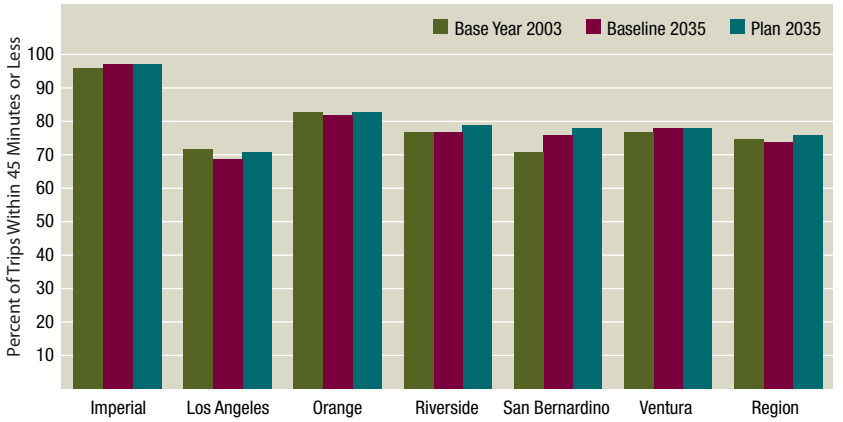


FIGURE 12 ACCESSIBILITY - BASE YEAR 2003 VS. BASELINE 2035 VS. PLAN 2035



Conclusion

From the performance measures used to demonstrate the results of our investments in our highway and arterial system, it is evident that the future of this region will lack the mobility and accessibility at the same levels that exist today. Great challenges lie ahead, and even the many investments that we are making today will not be enough for the region tomorrow.

Strategies other than simply building more roads are being undertaken to solve our region's complex transportation challenges. Due to environmental and health concerns as well as increasing roadway congestion, this region is placing a renewed emphasis on strategic planning, including the development of a more extensive public transportation system and the evaluation of integrated land use policies. At the same time, we have made significant investments over the last few decades in an extensive system of highways and arterials that can be improved by operational enhancements and expansions where necessary. As our region grows, we must carefully monitor the existing system to find the best use of our limited finances to keep Southern California moving. As a part of this effort, corridor projects have been identified in the Strategic Plan for long-term study (see RTP Chapter VII).

For those corridor projects, right-of-way preservation should be undertaken to begin laying the groundwork for advancing these long-range improvements. This region is pursuing an innovative, environmentally sensitive approach to considering future development and transportation projects. This approach envisions that transportation options will be developed with consideration for environmentally sensitive land-uses and habitat issues as part of the planning and design criteria. It would involve early and active involvement by all stakeholders at the local, state, and federal levels.

This approach draws on the Community and Environmental Transportation Acceptability Process (CETAP) undertaken in Riverside County, which serves as a template for other agencies and jurisdictions seeking to preserve rights-of-way for long-range transportation needs. The four CETAP corridors, two intra-county corridors—the Mid-County Parkway and the Winchester-Temecula Corridor—and two inter-county corridors—the Riverside County-Orange County Corridor (Corridor A) and the Moreno Valley-San Bernardino Corridor—are included in the financially constrained RTP.

As Riverside County has shown, it's important to identify and preserve corridors needed to expand or enhance transportation for future generations. Local governments will find it difficult to obtain optimal locations for these corridors unless efforts to preserve them are made early. The American Association of State Highway and Transportation Officials (AASHTO) Report on Corridor Preservation states that early efforts provide the following benefits:

- prevent inconsistent development
- minimize or avoid environmental, social and economic impacts
- prevent the loss of desirable corridor locations
- allow for the orderly assessment of impacts
- permit orderly project development, and
- reduce costs

Planners and policy-makers should start preparing strategies for preserving corridors now to prevent losing rights-of-way needed for transportation beyond the year 2035. Rights-of-way preservation is a reasonable concern, particularly in areas where development may block a long-range corridor. More opportunities to capitalize on preservation are available in less-urban areas, where local governments have an opportunity to obtain available land for new transportation facilities.

The first step in this kind of planning is to identify potential long-range corridors and determine if there is a need to preserve them. This will require intergovernmental coordination and should include a funding component. Next, criteria to evaluate and prioritize the selected corridors must be developed. Once a corridor is selected, environmental studies will be needed. Traditional preservation techniques include purchasing land or using government statutes to place a corridor alignment on a general plan land-use map. Other State and federal funds can be used to assist in acquiring land for long-range corridors.

Appendix

TABLE A1 BASE YEAR 2003 NETWORK SUMMARY STATISTICS

County	Centerline Miles	Lane Miles			
		AM Peak	Midday	PM Peak	Night
Freeway (Mixed Flow)					
Imperial	93	373	373	373	373
Los Angeles	638	4,619	4,619	4,619	4,619
Orange	169	1,257	1,257	1,257	1,257
Riverside	309	1,675	1,675	1,675	1,675
San Bernardino	464	2,263	2,263	2,263	2,263
Ventura	94	495	495	495	495
Subtotal	*1,767*	*10,683*	*10,683*	*10,683*	*10,683*
Toll					
Imperial	0	0	0	0	0
Los Angeles	0	0	0	0	0
Orange	63	308	308	308	308
Riverside	0	0	0	0	0
San Bernardino	0	0	0	0	0
Ventura	0	0	0	0	0
Subtotal	*63*	*308*	*308*	*308*	*308*
Major Arterial					
Imperial	85	322	322	322	322
Los Angeles	2,197	8,663	8,567	8,684	8,570
Orange	658	3,123	3,123	3,123	3,123
Riverside	337	1,185	1,185	1,185	1,185
San Bernardino	545	1,719	1,719	1,719	1,719
Ventura	256	875	875	875	875
Subtotal	*4,078*	*15,887*	*15,791*	*15,908*	*15,794*
Minor Arterial					
Imperial	342	670	670	670	670
Los Angeles	2,949	9,211	9,156	9,203	9,151
Orange	869	3,117	3,119	3,117	3,117
Riverside	1,103	3,017	3,017	3,017	3,017
San Bernardino	1,573	4,070	4,070	4,070	4,070
Ventura	358	983	983	983	983
Subtotal	*7,193*	*21,067*	*21,015*	*21,059*	*21,007*
Collector					
Imperial	1,175	2,374	2,374	2,374	2,374
Los Angeles	1,483	3,323	3,323	3,323	3,323
Orange	150	449	449	449	449
Riverside	1,475	3,397	3,397	3,397	3,397
San Bernardino	2,707	5,922	5,922	5,922	5,922
Ventura	267	623	623	623	623
Subtotal	*7,256*	*16,088*	*16,087*	*16,088*	*16,088*
Freeway (HOV)					
Imperial	0	0	0	0	0
Los Angeles	203	418	418	418	418
Orange	98	201	201	201	201
Riverside	24	50	50	50	50
San Bernardino	41	83	83	83	83
Ventura	0	0	0	0	0
Subtotal	*366*	*752*	*752*	*752*	*752*
Total All Facilities					
Imperial	1,695	3,738	3,738	3,738	3,738
Los Angeles	7,470	26,234	26,084	26,247	26,081
Orange	2,006	8,455	8,457	8,454	8,454
Riverside	3,247	9,325	9,325	9,325	9,325
San Bernardino	5,329	14,056	14,056	14,056	14,056
Ventura	976	2,976	2,976	2,976	2,976
Total	20,723	64,785	64,636	64,797	64,631

TABLE A2 BASE YEAR 2003 AVERAGE PERSON TRIP LENGTH BY COUNTY AND TIME PERIOD

County	Trip Purpose	Home-Based Work	Home-Based Non-Work	Home-Based School	Other-Based Other	Work-Based Others
			AM Peak			
Imperial	Time (minutes)	12.86	8.41	5.93	61.89	71.40
	Distance (miles)	8.75	5.76	3.84	50.66	58.37
Los Angeles	Time (minutes)	27.91	16.36	9.37	15.50	22.16
	Distance (miles)	12.48	7.53	4.19	6.99	10.15
Orange	Time (minutes)	24.27	15.61	8.15	14.52	20.49
	Distance (miles)	11.88	7.84	3.93	7.17	10.29
Riverside	Time (minutes)	32.81	22.15	9.35	17.66	26.75
	Distance (miles)	18.12	12.82	5.37	10.40	15.87
San Bernardino	Time (minutes)	35.89	21.15	8.41	17.44	27.03
	Distance (miles)	20.10	12.15	4.74	9.92	15.63
Ventura	Time (minutes)	26.17	16.34	6.66	13.54	21.34
	Distance (miles)	14.46	9.02	3.55	7.53	12.10
Region	**Time (minutes)**	**28.24**	**17.26**	**8.90**	**15.91**	**22.76**
	Distance (miles)	**13.67**	**8.66**	**4.30**	**7.92**	**11.37**
			Midday			
Imperial	Time (minutes)	12.38	8.70	5.38	72.96	60.79
	Distance (miles)	8.60	6.07	3.49	60.93	49.90
Los Angeles	Time (minutes)	23.84	14.02	7.47	13.60	17.23
	Distance (miles)	12.79	7.44	3.70	7.11	8.94
Orange	Time (minutes)	21.96	13.97	6.52	13.33	16.14
	Distance (miles)	12.48	7.90	3.44	7.39	9.03
Riverside	Time (minutes)	28.34	19.65	7.98	17.99	18.73
	Distance (miles)	18.98	13.21	4.74	12.13	12.44
San Bernardino	Time (minutes)	30.44	18.64	7.10	18.02	19.48
	Distance (miles)	20.72	12.42	4.16	11.91	12.70
Ventura	Time (minutes)	23.34	14.85	5.64	13.61	15.24
	Distance (miles)	15.05	9.34	3.16	8.48	9.64
Region	**Time (minutes)**	**24.42**	**15.07**	**7.23**	**14.76**	**17.43**
	Distance (miles)	**14.14**	**8.70**	**3.79**	**8.49**	**9.75**

TABLE A3 BASELINE 2035 NETWORK SUMMARY STATISTICS

County	Centerline Miles	Lane Miles			
		AM Peak	Midday	PM Peak	Night
Freeway (Mixed Flow)					
Imperial	93	373	373	373	373
Los Angeles	641	4,650	4,650	4,650	4,650
Orange	167	1,270	1,270	1,270	1,270
Riverside	310	1,701	1,701	1,701	1,701
San Bernardino	490	2,473	2,473	2,473	2,473
Ventura	94	521	521	521	521
Subtotal	*1,795*	*10,988*	*10,988*	*10,988*	*10,988*
Toll					
Imperial	0	0	0	0	0
Los Angeles	0	0	0	0	0
Orange	82	553	553	553	553
Riverside	0	0	0	0	0
San Bernardino	0	0	0	0	0
Ventura	0	0	0	0	0
Subtotal	*83*	*553*	*553*	*553*	*553*
Major Arterial					
Imperial	113	437	437	437	437
Los Angeles	2,208	8,810	8,718	8,831	8,720
Orange	658	3,183	3,183	3,183	3,183
Riverside	336	1,243	1,243	1,243	1,243
San Bernardino	551	1,784	1,784	1,784	1,785
Ventura	256	891	891	891	891
Subtotal	*4,123*	*16,349*	*16,256*	*16,369*	*16,259*
Minor Arterial					
Imperial	331	682	682	682	682
Los Angeles	2,960	9,334	9,280	9,326	9,275
Orange	874	3,139	3,142	3,139	3,139
Riverside	1,112	3,126	3,125	3,125	3,127
San Bernardino	1,583	4,230	4,230	4,230	4,230
Ventura	364	1,006	1,006	1,006	1,006
Subtotal	*7,225*	*21,517*	*21,465*	*21,509*	*21,459*
Collector					
Imperial	1,172	2,370	2,370	2,370	2,370
Los Angeles	1,486	3,343	3,343	3,343	3,343
Orange	150	450	450	450	450
Riverside	1,490	3,500	3,500	3,500	3,500
San Bernardino	2,711	6,036	6,004	6,004	6,004
Ventura	263	615	615	615	615
Subtotal	*7,272*	*16,313*	*16,281*	*16,281*	*16,281*
Freeway (HOV)					
Imperial	0	0	0	0	0
Los Angeles	282	510	510	510	510
Orange	114	225	225	225	225
Riverside	47	75	75	75	75
San Bernardino	53	93	93	93	93
Ventura	0	0	0	0	0
Subtotal	*497*	*903*	*903*	*903*	*903*
Total All Facilities					
Imperial	1,710	3,861	3,861	3,861	3,861
Los Angeles	7,577	26,648	26,501	26,661	26,499
Orange	2,046	8,821	8,823	8,821	8,821
Riverside	3,296	9,645	9,644	9,644	9,646
San Bernardino	5,388	14,616	14,583	14,583	14,584
Ventura	977	3,033	3,033	3,033	3,033
Total	20,994	66,624	66,447	66,603	66,444

TABLE A4 BASELINE 2035 AVERAGE PERSON TRIP LENGTH BY COUNTY AND TIME PERIOD

County	Trip Purpose	Home-Based Work	Home-Based Non-Work	Home-Based School	Other-Based Other	Work-Based Others
AM Peak						
Imperial	Time (minutes)	12.23	8.34	7.67	43.04	51.44
	Distance (miles)	7.19	4.91	4.68	28.65	33.76
Los Angeles	Time (minutes)	32.12	18.49	10.23	15.85	22.80
	Distance (miles)	13.41	7.96	4.26	6.85	9.97
Orange	Time (minutes)	24.11	15.70	9.69	15.14	21.17
	Distance (miles)	11.28	7.44	4.49	7.15	10.11
Riverside	Time (minutes)	34.11	24.74	17.41	15.39	23.14
	Distance (miles)	14.76	11.16	6.54	7.14	11.03
San Bernardino	Time (minutes)	32.37	22.57	12.39	15.84	24.36
	Distance (miles)	14.92	10.73	6.18	8.05	12.50
Ventura	Time (minutes)	23.61	16.04	7.06	12.80	20.36
	Distance (miles)	12.16	8.27	3.53	6.68	10.79
Region	**Time (minutes)**	**30.35**	**19.34**	**11.41**	**15.86**	**22.86**
	Distance (miles)	**13.26**	**8.71**	**4.89**	**7.36**	**10.67**
Midday						
Imperial	Time (minutes)	11.14	7.94	6.96	56.39	43.23
	Distance (miles)	6.93	5.01	4.39	38.33	29.11
Los Angeles	Time (minutes)	26.20	15.62	7.88	14.34	17.59
	Distance (miles)	13.60	8.02	3.79	7.24	8.81
Orange	Time (minutes)	21.37	13.81	7.77	14.08	16.49
	Distance (miles)	11.76	7.49	4.09	7.56	8.95
Riverside	Time (minutes)	27.73	20.84	11.90	16.22	16.85
	Distance (miles)	15.87	12.09	6.21	9.20	9.37
San Bernardino	Time (minutes)	27.18	19.21	10.15	17.07	18.56
	Distance (miles)	16.01	11.23	5.75	9.98	10.82
Ventura	Time (minutes)	20.93	14.07	5.96	13.14	14.30
	Distance (miles)	12.74	8.37	3.24	7.76	8.58
Region	**Time (minutes)**	**25.24**	**16.47**	**8.72**	**15.40**	**17.47**
	Distance (miles)	**13.74**	**8.96**	**4.47**	**8.36**	**9.30**

TABLE A5 PLAN 2035 NETWORK SUMMARY STATISTICS

County	Centerline Miles	Lane Miles			
		AM Peak	Midday	PM Peak	Night
Freeway (Mixed Flow)					
Imperial	100	412	412	412	412
Los Angeles	641	4,722	4,722	4,722	4,722
Orange	169	1,404	1,404	1,404	1,404
Riverside	316	1,903	1,903	1,903	1,903
San Bernardino	508	2,707	2,707	2,707	2,707
Ventura	94	550	550	550	550
Subtotal	*1,827*	*11,698*	*11,698*	*11,698*	*11,698*
Toll					
Imperial	0	0	0	0	0
Los Angeles	137	636	636	636	636
Orange	87	568	568	568	568
Riverside	47	123	123	123	123
San Bernardino	14	83	83	83	83
Ventura	0	0	0	0	0
Subtotal	*285*	*1,409*	*1,409*	*1,409*	*1,409*
Major Arterial					
Imperial	133	542	542	542	542
Los Angeles	2,243	9,123	9,031	9,143	9,032
Orange	659	3,202	3,201	3,201	3,201
Riverside	380	1,665	1,665	1,665	1,662
San Bernardino	713	2,859	2,859	2,859	2,859
Ventura	256	907	907	907	907
Subtotal	*4,384*	*18,298*	*18,206*	*18,318*	*18,203*
Minor Arterial					
Imperial	316	643	643	643	643
Los Angeles	2,948	9,333	9,279	9,325	9,274
Orange	878	3,155	3,157	3,155	3,155
Riverside	1,172	4,007	4,007	4,007	4,007
San Bernardino	1,622	4,884	4,884	4,884	4,884
Ventura	366	1,044	1,044	1,044	1,044
Subtotal	*7,302*	*23,066*	*23,015*	*23,058*	*23,007*
Collector					
Imperial	1,164	2,353	2,353	2,353	2,353
Los Angeles	1,479	3,332	3,332	3,332	3,332
Orange	150	442	442	442	442
Riverside	1,590	4,236	4,236	4,236	4,236
San Bernardino	2,632	5,951	5,951	5,951	5,951
Ventura	267	623	623	623	623
Subtotal	*7,282*	*16,937*	*16,937*	*16,937*	*16,937*
Freeway (HOV)					
Imperial	0	0	0	0	0
Los Angeles	313	564	564	564	564
Orange	121	242	242	242	242
Riverside	92	129	129	129	129
San Bernardino	154	208	208	208	208
Ventura	4	7	7	7	7
Subtotal	*684*	*1,151*	*1,151*	*1,151*	*1,151*
Total All Facilities					
Imperial	1,714	3,951	3,951	3,951	3,951
Los Angeles	7,761	27,711	27,564	27,723	27,560
Orange	2,063	9,012	9,015	9,012	9,012
Riverside	3,597	12,063	12,063	12,063	12,061
San Bernardino	5,642	16,692	16,692	16,692	16,692
Ventura	987	3,131	3,131	3,131	3,131
Total	21,764	72,561	72,416	72,573	72,406

TABLE A6 PLAN 2035 AVERAGE PERSON TRIP LENGTH BY COUNTY AND TIME PERIOD

County	Trip Purpose	Home-Based Work	Home-Based Non-Work	Home-Based School	Other-Based Other	Work-Based Others
AM Peak						
Imperial	Time (minutes)	11.96	8.20	7.59	42.45	50.15
	Distance (miles)	7.36	5.04	4.78	30.98	36.05
Los Angeles	Time (minutes)	31.32	18.05	10.24	16.07	23.05
	Distance (miles)	13.63	8.09	4.39	7.19	10.48
Orange	Time (minutes)	23.65	15.49	9.53	15.85	22.05
	Distance (miles)	11.65	7.75	4.59	7.94	11.25
Riverside	Time (minutes)	30.68	22.60	15.22	16.59	24.53
	Distance (miles)	15.75	11.84	6.94	8.74	13.31
San Bernardino	Time (minutes)	30.70	21.15	11.59	16.43	25.35
	Distance (miles)	15.80	11.15	6.34	9.06	14.12
Ventura	Time (minutes)	23.56	15.83	7.05	12.96	20.52
	Distance (miles)	12.48	8.38	3.60	6.91	11.13
Region	**Time (minutes)**	**29.21**	**18.56**	**10.94**	**16.35**	**23.45**
	Distance (miles)	**13.69**	**8.99**	**5.06**	**8.08**	**11.67**

County	Trip Purpose	Home-Based Work	Home-Based Non-Work	Home-Based School	Other-Based Other	Work-Based Others
Midday						
Imperial	Time (minutes)	11.00	7.83	6.93	56.38	43.01
	Distance (miles)	7.02	5.05	4.46	39.53	29.74
Los Angeles	Time (minutes)	25.91	15.31	7.92	14.55	17.85
	Distance (miles)	13.82	8.07	3.87	7.55	9.15
Orange	Time (minutes)	21.03	13.54	7.67	14.55	17.13
	Distance (miles)	11.96	7.60	4.12	8.18	9.71
Riverside	Time (minutes)	26.61	19.97	11.54	16.68	17.64
	Distance (miles)	16.45	12.40	6.46	10.18	10.65
San Bernardino	Time (minutes)	26.11	18.36	9.89	17.60	19.30
	Distance (miles)	16.51	11.47	5.90	10.96	12.00
Ventura	Time (minutes)	21.08	13.99	5.96	13.34	14.46
	Distance (miles)	12.96	8.42	3.27	7.97	8.76
Region	**Time (minutes)**	**24.75**	**16.02**	**8.63**	**15.73**	**17.92**
	Distance (miles)	**14.04**	**9.09**	**4.58**	**8.91**	**9.94**

TABLE A7 BASE YEAR 2003 DAILY VMT, VHT, DELAY, AND SPEED BY COUNTY AND TIME PERIOD

	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
County	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Imperial	837	76	18	1	1	*	47.2	53.7	913	19	2	47.7
Los Angeles	42,114	1,596	1,604	55	574	22	26.3	28.8	43,710	1,660	596	26.3
Orange	13,810	497	486	17	164	6	28.4	30.1	14,307	503	171	28.5
Riverside	8,019	569	221	12	55	2	36.3	46.8	8,587	233	58	36.8
San Bernardino	9,851	879	269	20	62	4	36.7	44.4	10,730	288	66	37.2
Ventura	3,685	161	108	4	27	1	34.2	37.4	3,846	112	28	34.3
Region Total	**78,316**	**3,778**	**2,706**	**110**	**884**	**36**	**28.9**	**34.4**	**82,094**	**2,815**	**920**	**29.2**
PM Peak												
Imperial	1,489	126	31	2	3	*	47.4	52.3	1,615	34	3	47.8
Los Angeles	70,753	2,587	3,272	111	1,484	56	21.6	23.2	73,340	3,384	1,540	21.7
Orange	23,058	806	914	31	363	15	25.2	25.6	23,864	945	378	25.2
Riverside	13,338	938	427	24	148	7	31.2	39.8	14,276	450	155	31.7
San Bernardino	16,296	1,466	489	37	142	11	33.3	40.0	17,762	526	153	33.8
Ventura	6,115	267	207	9	71	3	29.5	31.4	6,382	216	74	29.6
Region Total	**131,049**	**6,190**	**5,341**	**214**	**2,210**	**92**	**24.5**	**28.9**	**137,239**	**5,555**	**2,303**	**24.7**
Midday												
Imperial	1,370	221	28	4	2	*	49.2	53.7	1,591	32	2	49.8
Los Angeles	59,322	4,367	1,877	125	438	35	31.6	34.8	63,689	2,002	474	31.8
Orange	19,377	1,351	562	37	110	9	34.5	36.8	20,728	598	120	34.6
Riverside	11,930	1,515	284	30	38	4	42.0	49.7	13,445	315	43	42.7
San Bernardino	13,955	2,245	337	45	43	6	41.4	49.4	16,201	382	49	42.4
Ventura	4,965	418	130	10	18	2	38.3	42.7	5,383	139	20	38.6
Region Total	**110,920**	**10,117**	**3,217**	**252**	**650**	**57**	**34.5**	**40.2**	**121,037**	**3,469**	**708**	**34.9**

HIGHWAYS AND ARTERIALS REPORT 50

County	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
Night												
Imperial	638	184	12	3	*	*	51.5	56.7	822	16	*	52.6
Los Angeles	32,161	3,475	783	72	60	7	41.1	48.1	35,636	855	67	41.7
Orange	10,431	1,128	245	23	16	2	42.5	48.3	11,559	269	18	43.0
Riverside	6,199	1,502	129	26	5	1	48.1	58.9	7,701	154	6	49.9
San Bernardino	7,245	2,303	155	40	6	2	46.7	57.9	9,548	195	8	49.0
Ventura	2,633	367	60	7	3	*	43.8	51.3	3,000	67	3	44.6
Region Total	**59,307**	**8,958**	**1,384**	**171**	**90**	**12**	**42.8**	**52.3**	**68,265**	**1,556**	**102**	**43.9**
Daily												
Imperial	4,335	607	89	11	7	*	48.5	54.3	4,941	101	7	49.2
Los Angeles	204,350	12,025	7,537	364	2,556	120	27.1	33.0	216,375	7,901	2,675	27.4
Orange	66,676	3,783	2,207	108	654	32	30.2	35.0	70,458	2,315	687	30.4
Riverside	39,485	4,524	1,061	92	246	15	37.2	49.3	44,009	1,153	261	38.2
San Bernardino	47,348	6,892	1,250	142	253	23	37.9	48.7	54,240	1,392	276	39.0
Ventura	17,398	1,213	505	30	119	7	34.5	40.7	18,611	535	125	34.8
Region Total	**379,592**	**29,043**	**12,649**	**747**	**3,835**	**198**	**30.0**	**38.9**	**408,634**	**13,395**	**4,033**	**30.5**

* Value is less than 1,000.

Numbers may not add due to rounding.

TABLE A8 BASE YEAR 2003 DAILY VMT, VHT, DELAY, AND SPEED BY FACILITY TYPE AND TIME PERIOD

	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
Facility Type	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Freeway (MF) & Toll	35,211	2,598	972	63	431	24	36.2	41.1	37,809	1,035	455	36.5
Freeway (HOV)	2,360	0	59	0	22	0	40.1	N/A	2,360	59	22	40.1
Arterial	29,796	853	1,139	30	290	8	26.2	28.2	30,649	1,169	297	26.2
Collector	2,629	88	92	3	15	*	28.5	30.9	2,717	95	15	28.6
Ramp	2,494	100	207	8	125	5	12.1	13.0	2,594	215	130	12.1
Centroid Connector	5,826	138	237	6	N/A	N/A	N/A	N/A	5,964	243	N/A	N/A
Region Total	**78,316**	**3,778**	**2,706**	**110**	**884**	**36**	**28.9**	**34.4**	**82,094**	**2,815**	**920**	**29.2**
PM Peak												
Freeway (MF) & Toll	54,242	4,144	1,845	121	1,012	58	29.4	34.2	58,386	1,966	1,070	29.7
Freeway (HOV)	4,212	0	128	0	63	0	32.9	N/A	4,212	128	63	32.9
Arterial	53,689	1,499	2,356	61	812	21	22.8	24.5	55,188	2,417	833	22.8
Collector	4,929	175	211	7	64	2	23.4	24.6	5,105	218	66	23.4
Ramp	3,815	156	386	16	260	11	9.9	9.9	3,972	401	271	9.9
Centroid Connector	10,162	215	415	9	N/A	N/A	N/A	N/A	10,377	424	N/A	N/A
Region Total	**131,049**	**6,190**	**5,341**	**214**	**2,210**	**92**	**24.5**	**28.9**	**137,239**	**5,555**	**2,303**	**24.7**
Midday												
Freeway (MF) & Toll	52,550	7,094	1,136	144	329	37	46.2	49.2	59,644	1,281	365	46.6
Freeway (HOV)	2,364	0	47	0	10	0	50.7	N/A	2,364	47	10	50.7
Arterial	39,620	2,149	1,330	68	210	11	29.8	31.5	41,769	1,399	221	29.9
Collector	3,227	217	106	7	12	1	30.3	30.4	3,444	114	13	30.3
Ramp	3,708	287	212	17	90	8	17.5	16.6	3,995	229	98	17.4
Centroid Connector	9,451	370	386	15	N/A	N/A	N/A	N/A	9,821	401	N/A	N/A
Region Total	**110,920**	**10,117**	**3,217**	**252**	**650**	**57**	**34.5**	**40.2**	**121,037**	**3,469**	**708**	**34.9**

Facility Type	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
Night												
Freeway (MF) & Toll	33,456	7,092	567	116	52	9	59.0	61.0	40,548	684	61	59.3
Freeway (HOV)	590	0	10	0	1	0	60.3	N/A	590	10	1	60.3
Arterial	17,084	1,276	495	33	23	2	34.5	38.3	18,360	528	24	34.8
Collector	1,276	117	38	3	1	*	33.7	36.3	1,393	41	1	33.9
Ramp	2,448	245	94	9	14	1	26.1	26.6	2,693	103	15	26.2
Centroid Connector	4,453	228	181	9	N/A	N/A	N/A	N/A	4,680	190	N/A	N/A
Region Total	**59,307**	**8,958**	**1,384**	**171**	**90**	**12**	**42.8**	**52.3**	**68,265**	**1,556**	**102**	**43.9**
Daily												
Freeway (MF) & Toll	175,459	20,928	4,521	445	1,824	128	38.8	47.1	196,387	4,965	1,952	39.6
Freeway (HOV)	9,526	0	243	0	95	0	39.1	N/A	9,526	243	95	39.1
Arterial	140,190	5,777	5,320	193	1,335	42	26.4	29.9	145,967	5,513	1,376	26.5
Collector	12,061	597	447	20	91	4	27.0	29.4	12,658	468	95	27.1
Ramp	12,465	789	898	50	490	25	13.9	15.8	13,254	948	515	14.0
Centroid Connector	29,892	951	1,219	39	N/A	N/A	N/A	N/A	30,843	1,258	N/A	N/A
Region Total	**379,592**	**29,043**	**12,649**	**747**	**3,835**	**198**	**30.0**	**38.9**	**408,634**	**13,395**	**4,033**	**30.5**

* Value is less than 1,000.

Notes: MF for mixed flow or general purpose lanes, as opposed to HOV, high occupancy vehicle or carpool lanes. Centroid connectors are intra-zonal links used in regional travel demand models such as SCAG's to allocate trips from zone centroids to the highway network. Numbers may not add due to rounding.

TABLE A9 BASELINE 2035 DAILY VMT, VHT, DELAY, AND SPEED BY COUNTY AND TIME PERIOD

	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
County	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Imperial	2,641	141	72	3	21	*	36.6	47.9	2,782	75	21	37.0
Los Angeles	50,354	2,361	2,174	87	937	39	23.2	27.2	52,714	2,261	976	23.3
Orange	16,692	641	660	24	272	11	25.3	27.1	17,333	684	283	25.4
Riverside	15,879	1,110	723	36	374	17	22.0	30.4	16,990	760	390	22.4
San Bernardino	16,621	2,057	575	60	218	25	28.9	34.0	18,678	635	243	29.4
Ventura	4,458	237	153	8	54	3	29.1	31.7	4,696	160	57	29.3
Region Total	**106,645**	**6,547**	**4,357**	**218**	**1,875**	**96**	**24.5**	**30.0**	**113,191**	**4,575**	**1,971**	**24.7**
PM Peak												
Imperial	5,039	231	139	5	42	1	36.2	43.2	5,270	144	43	36.5
Los Angeles	85,111	3,722	4,493	176	2,332	99	18.9	21.1	88,833	4,669	2,431	19.0
Orange	27,740	1,045	1,245	47	584	26	22.3	22.0	28,785	1,293	611	22.3
Riverside	26,643	1,815	1,461	82	866	50	18.2	22.1	28,458	1,544	916	18.4
San Bernardino	27,399	3,446	1,146	129	542	70	23.9	26.6	30,845	1,275	612	24.2
Ventura	7,926	391	349	18	171	10	22.7	22.1	8,317	367	181	22.7
Region Total	**179,859**	**10,651**	**8,834**	**458**	**4,537**	**257**	**20.4**	**23.3**	**190,510**	**9,292**	**4,794**	**20.5**
Midday												
Imperial	4,429	387	101	8	17	1	43.9	49.2	4,815	109	18	44.3
Los Angeles	72,076	6,186	2,406	181	655	58	30.0	34.2	78,262	2,587	713	30.3
Orange	23,311	1,733	700	49	160	15	33.3	35.6	25,044	749	174	33.4
Riverside	24,037	2,945	772	86	252	34	31.1	34.4	26,982	858	286	31.5
San Bernardino	23,930	5,088	685	125	173	39	34.9	40.6	29,017	810	212	35.8
Ventura	6,249	608	174	15	34	4	35.8	40.2	6,857	189	37	36.2
Region Total	**154,033**	**16,946**	**4,839**	**464**	**1,290**	**150**	**31.8**	**36.6**	**170,978**	**5,302**	**1,440**	**32.2**

County	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
Night												
Imperial	2,067	362	41	6	2	*	50.3	56.1	2,430	48	2	51.1
Los Angeles	39,323	5,321	965	108	85	11	40.8	49.2	44,644	1,073	96	41.6
Orange	12,573	1,552	298	32	22	3	42.2	49.0	14,125	330	25	42.9
Riverside	12,447	3,078	280	56	22	5	44.5	54.7	15,525	336	27	46.2
San Bernardino	12,360	5,351	273	94	18	8	45.3	57.0	17,711	367	26	48.3
Ventura	3,263	552	75	11	4	*	43.3	51.7	3,815	86	5	44.3
Region Total	**82,032**	**16,216**	**1,931**	**307**	**153**	**29**	**42.5**	**52.8**	**98,248**	**2,238**	**182**	**43.9**
DAILY												
Imperial	14,176	1,121	353	23	81	3	40.1	49.6	15,297	376	85	40.7
Los Angeles	246,864	17,589	10,038	552	4,008	208	24.6	31.9	264,454	10,590	4,217	25.0
Orange	80,316	4,971	2,904	151	1,038	55	27.7	32.8	85,287	3,055	1,093	27.9
Riverside	79,006	8,948	3,236	260	1,514	106	24.4	34.4	87,955	3,497	1,619	25.2
San Bernardino	80,310	15,942	2,679	409	951	142	30.0	39.0	96,252	3,088	1,093	31.2
Ventura	21,897	1,788	752	51	263	17	29.1	35.1	23,684	803	281	29.5
Region Total	**522,568**	**50,360**	**19,961**	**1,446**	**7,855**	**532**	**26.2**	**34.8**	**572,928**	**21,407**	**8,387**	**26.8**

* Value is less than 1,000.

Numbers may not add due to rounding.

TABLE A10 BASELINE 2035 DAILY VMT, VHT, DELAY, AND SPEED BY FACILITY TYPE AND TIME PERIOD

	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
Facility Type	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Freeway (MF) & Toll	41,722	4,717	1,332	133	693	62	31.3	35.5	46,439	1,464	755	31.7
Freeway (HOV)	4,740	0	149	0	74	0	31.9	N/A	4,740	149	74	31.9
Arterial	41,431	1,251	1,798	48	674	16	23.0	25.9	42,682	1,846	690	23.1
Collector	7,023	228	319	9	123	3	22.0	24.1	7,250	328	126	22.1
Ramp	2,935	154	406	19	311	15	7.2	8.0	3,089	425	326	7.3
Centroid Connector	8,795	197	355	8	N/A	N/A	N/A	N/A	8,991	363	N/A	N/A
Region Total	**106,645**	**6,547**	**4,357**	**218**	**1,875**	**96**	**24.5**	**30.0**	**113,191**	**4,575**	**1,971**	**24.7**
PM Peak												
Freeway (MF) & Toll	64,482	7,452	2,638	271	1,651	159	24.4	27.5	71,934	2,909	1,810	24.7
Freeway (HOV)	7,745	0	326	0	205	0	23.8	N/A	7,745	326	205	23.8
Arterial	74,892	2,197	3,719	103	1,664	46	20.1	21.4	77,089	3,822	1,710	20.2
Collector	12,783	463	747	29	385	16	17.1	16.2	13,246	776	401	17.1
Ramp	4,481	236	777	44	632	36	5.8	5.4	4,717	821	668	5.7
Centroid Connector	15,477	301	626	12	N/A	N/A	N/A	N/A	15,778	639	N/A	N/A
Region Total	**179,859**	**10,651**	**8,834**	**458**	**4,537**	**257**	**20.4**	**23.3**	**190,510**	**9,292**	**4,794**	**20.5**
Midday												
Freeway (MF) & Toll	62,252	12,409	1,456	277	503	90	42.7	44.8	74,661	1,733	593	43.1
Freeway (HOV)	7,587	0	176	0	58	0	43.0	N/A	7,587	176	58	43.0
Arterial	57,365	3,129	1,978	105	444	25	29.0	29.9	60,493	2,082	469	29.1
Collector	7,912	482	291	21	72	8	27.2	23.0	8,394	312	79	26.9
Ramp	4,395	407	355	40	213	28	12.4	10.1	4,802	396	240	12.1
Centroid Connector	14,523	519	582	21	N/A	N/A	N/A	N/A	15,042	603	N/A	N/A
Region Total	**154,033**	**16,946**	**4,839**	**464**	**1,290**	**150**	**31.8**	**36.6**	**170,978**	**5,302**	**1,440**	**32.2**

Facility Type	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
Night												
Freeway (MF) & Toll	39,946	13,243	685	220	73	21	58.3	60.2	53,190	905	93	58.7
Freeway (HOV)	4,184	0	71	0	6	0	58.6	N/A	4,184	71	6	58.6
Arterial	25,462	2,055	708	52	49	4	36.0	39.2	27,517	760	53	36.2
Collector	2,628	229	77	7	5	*	34.0	32.8	2,857	84	5	33.9
Ramp	2,967	365	117	15	21	3	25.5	24.7	3,332	131	24	25.4
Centroid Connector	6,844	324	273	13	N/A	N/A	N/A	N/A	7,169	286	N/A	N/A
Region Total	**82,032**	**16,216**	**1,931**	**307**	**153**	**29**	**42.5**	**52.8**	**98,248**	**2,238**	**182**	**43.9**
Daily												
Freeway (MF) & Toll	208,402	37,822	6,112	901	2,921	331	34.1	42.0	246,223	7,012	3,251	35.1
Freeway (HOV)	24,255	0	722	0	343	0	33.6	N/A	24,255	722	343	33.6
Arterial	199,150	8,632	8,202	308	2,831	92	24.3	28.0	207,782	8,510	2,922	24.4
Collector	30,346	1,402	1,434	66	584	28	21.2	21.2	31,748	1,500	612	21.2
Ramp	14,778	1,163	1,655	118	1,176	82	8.9	9.8	15,941	1,773	1,258	9.0
Centroid Connector	45,638	1,341	1,836	54	N/A	N/A	N/A	N/A	46,979	1,890	N/A	N/A
Region Total	**522,568**	**50,360**	**19,961**	**1,446**	**7,855**	**532**	**26.2**	**34.8**	**572,928**	**21,407**	**8,387**	**26.8**

* Value is less than 1,000.

Notes: MF for mixed flow or general purpose lanes, as opposed to HOV, high occupancy vehicle or carpool lanes. Centroid connectors are intra-zonal links used in regional travel demand models such as SCAG's to allocate trips from zone centroids to the highway network. Numbers may not add due to rounding.

TABLE A11 PLAN 2035 VMT, VHT, DELAY, AND SPEED BY COUNTY AND TIME PERIOD

	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
County	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Imperial	2,636	141	69	3	19	*	38.1	49.2	2,776	72	19	38.5
Los Angeles	49,828	2,342	2,041	81	832	34	24.4	29.1	52,170	2,121	866	24.6
Orange	16,997	649	650	23	266	10	26.2	28.3	17,646	673	277	26.2
Riverside	16,683	1,133	633	32	274	12	26.4	35.0	17,815	665	286	26.8
San Bernardino	17,085	2,004	512	51	153	17	33.4	39.4	19,089	563	170	33.9
Ventura	4,446	239	142	7	43	2	31.4	34.3	4,686	149	46	31.5
Region Total	**107,674**	**6,508**	**4,046**	**197**	**1,587**	**77**	**26.6**	**33.1**	**114,183**	**4,243**	**1,664**	**26.9**
PM Peak												
Imperial	5,036	231	135	5	39	1	37.4	44.3	5,267	140	40	37.6
Los Angeles	84,242	3,683	4,134	160	2,026	85	20.4	23.1	87,925	4,294	2,111	20.5
Orange	28,358	1,044	1,206	45	551	24	23.5	23.4	29,403	1,250	576	23.5
Riverside	28,371	1,833	1,214	67	595	35	23.4	27.3	30,204	1,282	630	23.6
San Bernardino	28,196	3,395	955	101	351	44	29.5	33.5	31,591	1,056	395	29.9
Ventura	7,963	396	329	16	150	9	24.2	24.0	8,359	345	159	24.2
Region Total	**182,166**	**10,582**	**7,972**	**395**	**3,713**	**198**	**22.8**	**26.8**	**192,748**	**8,367**	**3,911**	**23.0**
Midday												
Imperial	4,430	386	99	8	16	1	44.7	50.0	4,816	107	17	45.0
Los Angeles	71,729	6,164	2,321	174	594	52	30.9	35.5	77,894	2,495	646	31.2
Orange	23,638	1,734	693	48	158	14	34.1	36.3	25,372	741	172	34.2
Riverside	24,832	2,974	726	78	195	26	34.2	38.3	27,805	804	221	34.6
San Bernardino	24,468	5,025	627	109	112	24	39.0	46.2	29,493	736	136	40.1
Ventura	6,258	611	173	15	32	3	36.1	40.9	6,869	188	36	36.5
Region Total	**155,355**	**16,894**	**4,640**	**430**	**1,106**	**120**	**33.5**	**39.3**	**172,249**	**5,070**	**1,227**	**34.0**

County	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
Night												
Imperial	2,067	362	41	6	2	*	50.9	56.6	2,429	47	2	51.7
Los Angeles	38,871	5,298	945	107	78	11	41.1	49.6	44,170	1,052	89	42.0
Orange	12,626	1,559	294	32	22	3	42.9	49.4	14,185	326	25	43.6
Riverside	12,698	3,078	279	55	18	4	45.6	55.9	15,776	334	22	47.3
San Bernardino	12,563	5,340	271	92	15	6	46.3	57.9	17,903	363	21	49.3
Ventura	3,242	550	75	11	4	*	43.3	51.8	3,792	85	5	44.4
Region Total	**82,069**	**16,186**	**1,905**	**303**	**139**	**26**	**43.1**	**53.5**	**98,256**	**2,207**	**165**	**44.5**
DAILY												
Imperial	14,169	1,119	344	22	75	3	41.2	50.4	15,288	366	78	41.8
Los Angeles	244,671	17,488	9,441	521	3,530	182	25.9	33.6	262,159	9,962	3,712	26.3
Orange	81,620	4,986	2,843	147	997	52	28.7	33.9	86,606	2,990	1,049	29.0
Riverside	82,584	9,017	2,852	232	1,081	77	29.0	38.8	91,601	3,084	1,159	29.7
San Bernardino	82,312	15,763	2,365	353	631	91	34.8	44.6	98,076	2,718	722	36.1
Ventura	21,910	1,796	718	49	230	15	30.5	36.7	23,706	767	245	30.9
Region Total	**527,265**	**50,171**	**18,563**	**1,324**	**6,545**	**421**	**28.4**	**37.9**	**577,436**	**19,887**	**6,966**	**29.0**

* Value is less than 1,000.

Numbers may not add due to rounding.

TABLE A12 PLAN 2035 VMT, VHT, DELAY, AND SPEED BY FACILITY TYPE AND TIME PERIOD

	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
Facility Type	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
AM Peak												
Freeway (MF) & Toll	43,193	4,768	1,226	120	565	48	35.2	39.7	47,961	1,346	613	35.6
Freeway (HOV)	5,634	0	165	0	77	0	34.1	N/A	5,634	165	77	34.1
Arterial	41,170	1,205	1,671	44	572	14	24.6	27.4	42,375	1,715	585	24.7
Collector	6,069	191	263	8	93	3	23.1	23.4	6,260	271	96	23.1
Ramp	2,996	150	377	17	280	12	7.9	9.0	3,146	394	292	8.0
Centroid Connector	8,612	194	344	8	N/A	N/A	N/A	N/A	8,806	351	N/A	N/A
Region Total	**107,674**	**6,508**	**4,046**	**197**	**1,587**	**77**	**26.6**	**33.1**	**114,183**	**4,243**	**1,664**	**26.9**
PM Peak												
Freeway (MF) & Toll	67,380	7,575	2,408	237	1,377	123	28.0	32.0	74,955	2,645	1,500	28.3
Freeway (HOV)	9,523	0	350	0	202	0	27.2	N/A	9,523	350	202	27.2
Arterial	74,404	2,094	3,379	89	1,372	36	22.0	23.5	76,498	3,469	1,408	22.1
Collector	11,082	386	603	23	289	13	18.4	16.4	11,468	627	302	18.3
Ramp	4,598	230	623	33	474	26	7.4	6.9	4,828	656	499	7.4
Centroid Connector	15,179	297	608	12	N/A	N/A	N/A	N/A	15,476	620	N/A	N/A
Region Total	**182,166**	**10,582**	**7,972**	**395**	**3,713**	**198**	**22.8**	**26.8**	**192,748**	**8,367**	**3,911**	**23.0**
Midday												
Freeway (MF) & Toll	63,538	12,488	1,398	259	425	71	45.5	48.2	76,026	1,657	496	45.9
Freeway (HOV)	8,513	0	195	0	63	0	43.6	N/A	8,513	195	63	43.6
Arterial	57,620	3,066	1,897	99	377	22	30.4	31.1	60,686	1,996	399	30.4
Collector	6,918	422	263	20	69	9	26.3	20.6	7,339	284	78	25.9
Ramp	4,467	405	318	32	172	19	14.1	12.7	4,872	349	191	13.9
Centroid Connector	14,300	513	569	20	N/A	N/A	N/A	N/A	14,812	589	N/A	N/A
Region Total	**155,355**	**16,894**	**4,640**	**430**	**1,106**	**120**	**33.5**	**39.3**	**172,249**	**5,070**	**1,227**	**34.0**

Facility Type	VMT (thousands)		VHT (thousands)		Delay (thousands)		Speed (mph)		Total (Auto + Truck)			
	Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck	VMT	VHT	Delay	Speed
Night												
Freeway (MF) & Toll	40,102	13,276	683	219	68	19	58.7	60.7	53,378	902	87	59.2
Freeway (HOV)	4,410	0	75	0	7	0	58.5	N/A	4,410	75	7	58.5
Arterial	25,419	2,023	693	51	41	3	36.7	40.0	27,442	743	44	36.9
Collector	2,467	202	73	6	4	*	33.7	32.5	2,669	79	5	33.6
Ramp	2,947	365	114	14	19	3	25.8	25.4	3,312	129	22	25.7
Centroid Connector	6,724	321	266	13	N/A	N/A	N/A	N/A	7,045	279	N/A	N/A
Region Total	**82,069**	**16,186**	**1,905**	**303**	**139**	**26**	**43.1**	**53.5**	**98,256**	**2,207**	**165**	**44.5**
Daily												
Freeway (MF) & Toll	214,214	38,107	5,714	835	2,434	261	37.5	45.6	252,321	6,549	2,695	38.5
Freeway (HOV)	28,080	0	786	0	348	0	35.7	N/A	28,080	786	348	35.7
Arterial	198,613	8,388	7,641	282	2,362	75	26.0	29.7	207,001	7,923	2,437	26.1
Collector	26,536	1,201	1,203	58	456	25	22.1	20.6	27,737	1,261	481	22.0
Ramp	15,008	1,150	1,432	96	945	60	10.5	12.0	16,158	1,529	1,005	10.6
Centroid Connector	44,815	1,324	1,787	53	N/A	N/A	N/A	N/A	46,139	1,839	N/A	N/A
Region Total	**527,265**	**50,171**	**18,563**	**1,324**	**6,545**	**421**	**28.4**	**37.9**	**577,436**	**19,887**	**6,966**	**29.0**

* Value is less than 1,000.

Notes: MF for mixed flow or general purpose lanes, as opposed to HOV, high occupancy vehicle or carpool lanes. Centroid connectors are intra-zonal links used in regional travel demand models such as SCAG's to allocate trips from zone centroids to the highway network. Numbers may not add due to rounding.



SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2008
RTP REGIONAL TRANSPORTATION PLAN

Making the Connections

Goods Movement Report

GOODS MOVEMENT

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Goods movement activities thrive in the SCAG region because of the numerous advantages the region offers, including deep-water marine ports, highly developed networks of highways and railways, an abundance of trans-loading facilities, and a large internal market. As a result, the region serves as a major gateway for both international and domestic commerce, with goods movement being the fastest growing segment of the region's transportation sector. Additionally, goods movement plays a vital role in the local, regional, state, and national economies with one out of every seven jobs in Southern California linked to trade related industries.

While all projections indicate continued robust growth in trade volumes, the existing goods movement system is highly constrained. Over time, this trend will undermine the efficiency, reliability, and productivity of the system, and contribute to negative environmental and community impacts. Without improvements to the current system, projected growth in trade will worsen traffic congestion, pushing the region toward massive gridlock. Ultimately, this will lead to delays in goods delivery, which will increase costs to consumers and reduce quality of service, potentially undermining the region's competitive advantages. Additionally, the air quality and public health effects of diesel emissions are expected to worsen if no action is taken to mitigate these negative impacts. Current research suggests that health impacts associated with diesel emissions include lung malfunctioning, arterial thickening, birth defects, low birth weights, premature deaths, and increased rates of cancer and asthma. These and other environmental and public health impacts have increasingly led communities and policy makers to demand mitigation strategies and challenge proposals for infrastructure capacity enhancements.

Goods movement activities in the SCAG region have enormous impacts on the local, regional, state, and national economies, as well as local residents' quality of life. Infrastructure constraints, their associated impacts on operational efficiency, and associated adverse health impacts are critical issues which will continue to impact the SCAG region throughout the RTP period and beyond, requiring a coordinated regional framework to realize accelerated infrastructure improvements. As such, this RTP proposes three key goods movement strategies to address these challenges.

1. Freight Rail Investments, which consist of accelerating mainline capacity, grade separations, and locomotive engine upgrades;
2. Dedicated lanes for clean technology trucks, which focus upon adding roadway capacity along truck intensive corridors; and
3. High-Speed Regional Transport (HSRT) for freight, which includes exploration of HSRT systems that can provide greater freight throughput and reliability, with near zero emissions.

Economic Impacts of Goods Movement

INTERNATIONAL TRADE

Trade activities in the SCAG region produce a wide range of economic impacts at the local, regional, state, and national levels, and generate significant employment opportunities ranging from entry level to white-collar managerial positions. Businesses and services supported by trade activities include wholesale, supply chain management, courier services, vessel operations services, cargo handling, surface transportation (rail and truck), air cargo, trade finance, freight forwarding, customs brokers, insurance, and government agencies.

The total trade value of containerized trade through the San Pedro Bay ports (the Ports of Los Angeles and Long Beach) was $256 billion in 2005. According to the U.S. Department of Transportation, the Port of Los Angeles became the nation's most valuable trade conduit in 2003 surpassing John F. Kennedy International Airport for total value of goods imported and exported through a freight gateway. The total economic output associated with international containerized trade through the Ports in 2005 was approximately $364 billion. Containerized trade has generated, directly or indirectly, approximately $107.5 billion in income, approximately 3.3 million jobs, and $28.3 billion in state and local taxes, as shown in Table 1. However, it is important to note

that the majority of these tax revenues were not reinvested to provide capacity enhancements to the regional goods movement system.

TABLE 1 SUMMARY OF TRADE IMPACTS FOR CONTAINERIZED TRADE VIA THE PORTS OF LOS ANGELES AND LONG BEACH IN 2005 ($ BILLIONS)

Item	Exports	Imports	Total
Trade Value	$35.4	$220.6	$256.0
Economic Impacts:			
• Output	$78.7	$285.2	$364.0
• Income	$18.8	$88.3	$107.5
• Total Jobs	446,000	2,840,000	3,306,000
• State & Local Taxes	$2.0	$26.3	$28.3

Source: BST Associates, PIERS, US Department of Commerce, U.S. Bureau of Economic Analysis, WISER Trade.

LOCAL MANUFACTURING AND LOGISTICS INDUSTRY

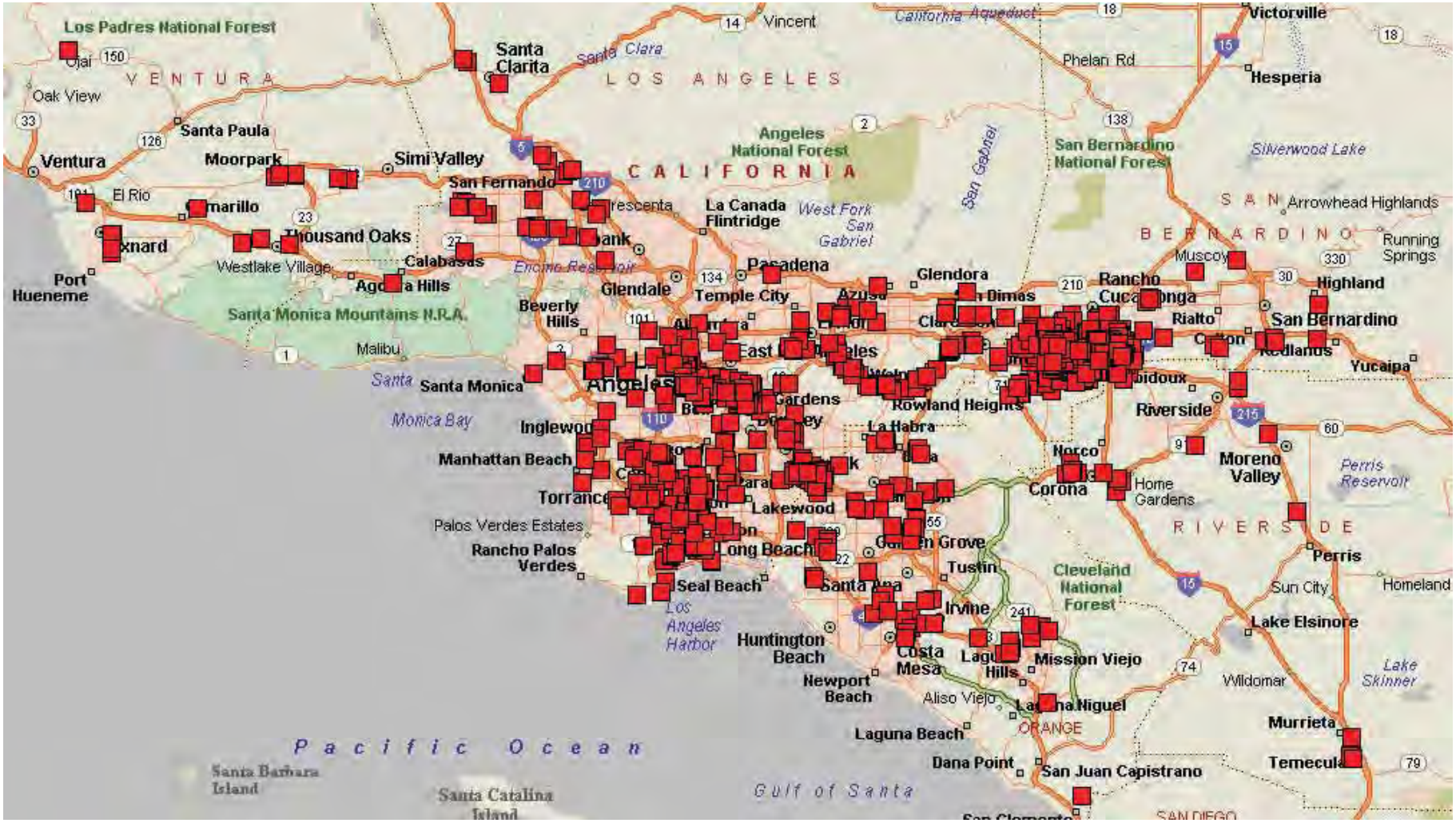
Although the region's manufacturing sector has been declining, it is still one of the largest in the nation. Los Angeles County ranks 1st, Orange County 8th, and the Riverside-San Bernardino area 16th largest in the nation. These data indicate that the region represents a significant market for all types of suppliers. Major products produced in the region include computer & electronic products, apparel, transportation equipment, fabricated metal products, plastics & rubber products, textile and food. Most of the region's manufacturing centers are clustered in the area bounded by SR-60, I-710 and Los Angeles/Orange county line, the South Bay area, the San Fernando Valley, the San Gabriel Valley (the City of Industry), and northern parts of Orange County and Inland Empire.

According to studies by Dr. John Husing, the manufacturing sector historically played a key role in the regional economy by providing upward income mobility to entry-level workers with marginal education. Manufacturing has enabled unskilled workers to gain necessary skills and experience via on-the-job training, and given them the means to enter the middle class. Recent technology advancements, however, have increased operational efficiency and have led to significant declines in employment demand for this sector. Another factor contributing to this trend is the high cost of conducting business in Southern California, including increasing workers compensation costs, rising energy costs, and an expensive housing market. These high costs and the need to compete in the global marketplace, have increasingly led manufacturers to outsource their activities to achieve lower costs. As a result, international trade continues to grow rapidly in the region, as goods and products manufactured overseas are shipped to the United States through Southern California's ports. This has created an exponential growth in the logistics sector, as these imported goods are transported from Southern California's ports to the rest of the United States. Current data suggests that Southern California's logistics sector will continue to experience both sustained and rapid growth well into the future.

The logistics industry is now filling the employment needs created by the region's declining manufacturing sector. Similar to manufacturing, the logistics industry provides good-paying jobs that are well above the minimum wage for entry-level workers with limited education. The success of the logistics industry in the SCAG region is due in part to "Just-in-Time" systems used by the nation's manufactures and retailers, which makes the logistics sector one of the most capital and information-intensive industries in the region.

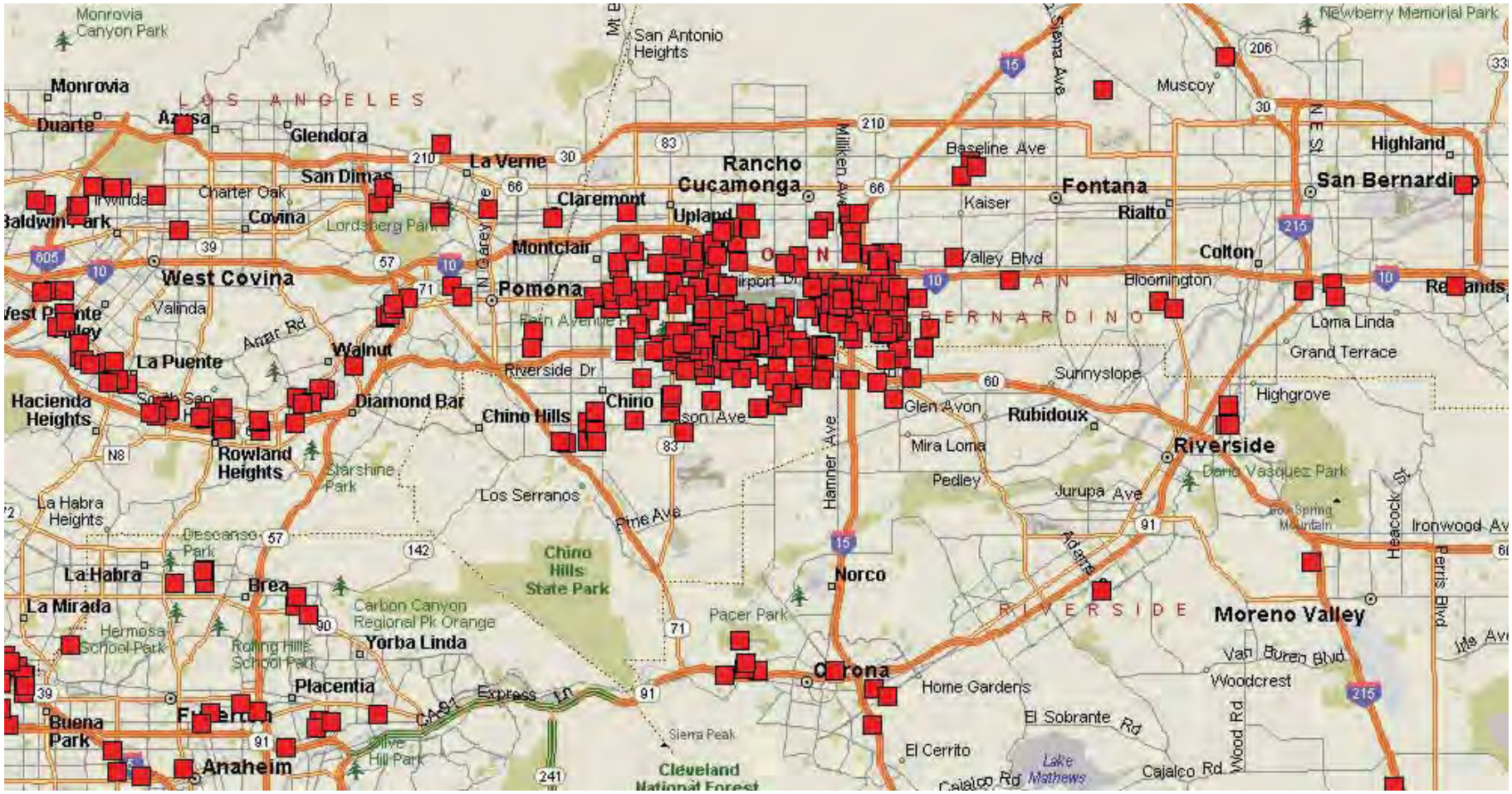
The locations of logistics centers tend to overlap with manufacturing centers as these sectors are complementary to one another. Throughout the region, warehousing, distribution, and intermodal facilities occupy more than 1.5 billion square feet of space with more than 32 million square feet currently in development. Services provided by these facilities account for 15% of the total U.S. market and 60% of the West Coast market. Exhibits 1 and 2 display the distribution of warehouses and distribution centers in the SCAG region.

EXHIBIT 1 WAREHOUSES AND DISTRIBUTION CENTERS IN THE SCAG REGION



Source: Inland Port Feasibility Study, SCAG, 2006.

EXHIBIT 2 WAREHOUSES AND DISTRIBUTION CENTERS IN THE INLAND EMPIRE



Source: Inland Port Feasibility Study, SCAG, 2006.

CROSS-BORDER TRADE ACTIVITY

Cross-border trade activity between California and Baja California, Mexico increased significantly following the passage of NAFTA in 1993, resulting in economic benefits for both countries. In the SCAG region, there are three Ports of Entry (POEs) located in Imperial County (Calexico, Calexico East and Andrade). The total value of goods transported through these POEs increased from $3.4 billion in 1995 to $10.8 billion in 2005. The Calexico POE was the second busiest land crossing along the California/Baja California border with approximately 17 million people crossing northbound in 2003 and 600,000 annual truck crossings. Incoming border-crossing truck volumes through Imperial County's POEs rose from over 182,000 in 1994 to almost 322,000 in 2005, a 77% increase.

This increase in truck traffic is primarily due to the maquiladora industry, (manufacturing / assembly plant operations along the Border), which has grown over 472% since 1978. Caltrans estimates that border trade activity will continue to grow, with approximately 5.6 million border crossings expected by 2030. Railroads also contribute to border-crossing trade activity. In the SCAG region, a Union Pacific rail line connects Mexicali in Baja California to Calexico and El Centro in Imperial County. This line handles approximately 160 railcars per day, six days a week.

Existing Regional Goods Movement System

The region's major ports and airports handle an enormous amount of imported goods, mainly from Asia, as well as exports. Goods enter and exit the region via ocean carriers, railroads, trucks, and aircraft and are transported to final destinations or to local warehousing and distribution centers for sorting, consolidation, and distribution. Exhibit 3 illustrates the existing regional goods movement system. The following sections discuss each of the components in detail.

EXHIBIT 3 EXISTING REGIONAL GOODS MOVEMENT SYSTEM



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

Maritime Activity

The Ports of Los Angeles and Long Beach, also known as the San Pedro Bay (SPB) ports, constitute the nation's busiest seaport and the fifth largest container port complex in the world. In 2005, the Ports accounted for approximately 24 percent of all U.S. export container traffic and approximately 40 percent of import container traffic. The Ports handled 14.2 million twenty-foot equivalent Units (TEUs) in 2005 and 15.8 million TEUs in 2006.

Table 2 shows forecasted growth for cargo containers moving through the SPB ports through 2030. The forecasts are capacity constrained forecasts based on current development strategies at the Ports. The US Department of Transportation has noted that unconstrained demand could be as high as 60 million TEUs. The ability of the Ports to handle projected growth in containerized cargo volumes is critical to the continued health of the local, regional, state, and national economies.

TABLE 2 SAN PEDRO BAY PORTS CONTAINERIZED CARGO FORECASTS

Year	TEUs (Million)	Share of California Total
2006 (actual)	15.8	86.8%
2010	19.7	86.8%
2020	36.0	85.7%
2030	42.5	86.7%

Source: Growth of California Ports – Opportunities and Challenges, A Report to the Legislature, April 2007

The breakdown of cargo types and volumes received by both Ports is illustrated in Table 3.

TABLE 3 PORTS OF LOS ANGELES AND LONG BEACH CARGO TYPES AND VOLUMES

Cargo Types	2006 Cargo Volume (Millions of Metric Revenue Tons)		
	Port of Los Angeles	Port of Long Beach	Total (Both Ports)
General Cargo	155.3	127.2	282.5
Liquid Bulk	22.8	33.2	56.0
Dry Bulk	3.6	9.4	13.0
Total	181.7	169.8	351.5

Sources: Port of Los Angeles 2006 Financial Statement; and Port of Long Beach 2006 Monthly Tonnage Summary Report.

Seventy percent of imported goods arriving at the Ports are intended for markets outside of the region. Despite efforts to develop alternative West Coast gateways, such as enhancing cargo handling capacity, the SPB ports are expected to remain the primary West Coast gateway to the rest of the nation well into the future.

The Port of Hueneme also plays an important role in the region's goods movement system. Located approximately 60 miles northwest of Los Angeles, the Port of Hueneme is the only deep-water harbor between Los Angeles and San Francisco. Roughly $7.5 billion in cargo moves through the Port of Hueneme each year, which mostly includes automobiles, fresh fruit, and produce. The Port's location near the Santa Barbara channel has also made the Port one of the primary support facilities for the offshore oil industry. Port related activity contributes over $650 million to the local economy, and supports an additional 5,000 jobs (directly and indirectly) in Ventura County.

PORT RELATED RAIL ACTIVITIES: ON-DOCK, NEAR-DOCK AND OFF-DOCK FACILITIES

More than half of the international import and export container market utilizes the region's intermodal rail system. There are two main types of international intermodal movements in Southern California, depending on cargo handling and intermodal transfer practices:

- Direct Intermodal: The direct loading/unloading of marine containers on/off intermodal trains, without intermediate cargo handling, and
- Transload Intermodal: The transfer of cargo from marine containers to domestic trailers at transload/consolidation facilities and warehouses, and includes subsequent transfer to railcars. This offers advantages by expediting the return of empty marine containers back to port terminals and enhancing the cost-effectiveness of intermodal movements since domestic trailers offer the ability to move larger shipment volumes per rail car compared to marine containers. Approximately 10% of total port container throughput is currently estimated to be transloaded and moved on the rail system.

Depending on the location of the intermodal yards relative to port terminals, intermodal logistics movements associated with port containers can be categorized into the following types:

- On-Dock Intermodal Rail: Loading/unloading of containers directly on/off intermodal trains on the docks. On-dock intermodal accounted for more than 24% of the SPB ports intermodal throughput in 2006.
- Near-Dock Intermodal Rail: Loading/unloading of containers directly on/off intermodal trains at an intermodal rail yard located near the docks. Currently, the only near-dock intermodal yard in Southern California is the Intermodal Container Transfer Facility (ICTF) owned and operated by the Union Pacific Railroad. The ICTF handled approximately 8% of the SPB ports intermodal cargo in 2006.
- Off-Dock Intermodal Rail: Loading/unloading of containers on/off intermodal trains at an intermodal yard located farther away from terminals than a near-dock intermodal yard. Off-dock intermodal facilities in Southern California are located in downtown Los Angeles, approximately 25 miles north of the Ports. They are operated by both BNSF and UP. Off-dock intermodal facilities handled approximately 20% of Port container cargo throughput in 2006, though this share has been declining due to increased movement of containers using on-dock rail.
- On-dock intermodal rail requires no truck movements on local and regional roadway systems. Remaining intermodal market movements require at least one truck trip to a near dock or off-dock intermodal facility. Compared to off-dock intermodal, on-dock and near-dock intermodal operations play a key role in minimizing port truck trips and reducing truck VMT, resulting in lower emissions and increased safety benefits to the region. The increased efficiency of intermodal yards has an impact on the overall productivity of the regional goods movement system.

As of 2005, 3.8 million TEUs, or 24 %, of intermodal cargo were handled at on-dock rail yards at the SPB ports. With planned improvements at the Ports, this number is projected to increase to 12.9 million TEUs, or approximately 30 %, by 2030. If this projected volume were handled exclusively by trucks, the increased truck traffic would cripple regional traffic flows, and adversely impact air quality. In recognition of these challenges, stakeholders are proceeding with projects to enhance intermodal facility capacity and connectivity with the SPB ports by developing several on-dock rail yard projects and working with shipping lines and terminal operators to improve efficiency. However, demand is projected to outpace capacity making near-dock rail yard expansion critical.

The SPB ports have initiated the Rail Enhancement Program (REP) for the phased development and implementation of key on-dock rail projects and key rail infrastructure projects. Projects included in the REP have been supported by industry stakeholders who believe these projects are imperative to maintain efficient operations at the SPB ports. Table 4 highlights planned on-dock and near-dock facilities in the SPB ports area, and Table 5 highlights rail infrastructure projects.

TABLE 4 PLANNED ON-DOCK RAIL YARD PROJECTS AT THE SAN PEDRO BAY PORTS

Rail Yard Project		Sponsor	Development Cost ($ millions)
Phase I Short-term (by end of 2007)			
	No Rail Yard Projects		
Phase II Near-term (by end of 2010)			
	Pier A On-Dock Rail Yard Expansion to Carrack	POLB	19.6
	Pier S On-Dock Rail Yard	POLB	34.3
	New Near-Dock-South of Sepulveda (potential)	POLA	Na
	Pier G-New North Working Yard	POLB	14.1
	Pier G-South Working Yard Rehabilitation	POLB	40.7
	West Basin East-New ICTF (Phase I)	POLA	45.4
Phase III Medium-term (by end of 2015)			
	Navy mole Road Storage Rail Yard	POLB	10.0
	Middle Harbor Terminal Rail Yard	POLB	68.9
	Pier J On-Dock Rail Yard Reconfiguration	POLB	100.0
	Pier 400 On-Dock Rail Yard Expansion (Phase I)	POLA	33.4
	Pier 300 On-Dock Rail Yard Expansion	POLA	23.4
	Terminal Island ICTF Rail Yard Expansion	POLA	18.9
	West Basin ICTF Rail Yard Expansion (Phase I)	POLA	6.2
Phase IV Long-term (beyond 2015)			
	Pier A On-Dock Rail Yard East of Carrack	POLB	31.4
	Pier 400 On-Dock Rail Yard Expansion (Phase II)	POLA	16.3
	West Basin ICTF Rail Yard Expansion (Phase II)	POLA	12.5
	West Basin East-ICTF Expansion (Phase II)	POLA	7.8
	Subtotal POLA Cost (millions)		163.9
	Subtotal POLB Cost (millions)		318.9
	Total Potential Rail Yard Cost (millions)		482.8

Source: San Pedro Bay Port Rail Study Update, December 2006

TABLE 5 LIST OF RAIL INFRASTRUCTURE PROJECTS (OUTSIDE MARINE TERMINALS)

	Rail Infrastructure Project	Sponsor	Development Cost ($ millions)
Phase I Short-term (by end of 2007)			
I.1	Closure of Edison Avenue Grade Crossing	POLB	0.3
I.2	Expanded Control Points to POLB/POLA	ACTA	4.9
I.3	Thenard Track Connecion at Alameda Street/K-Pac	ACTA	4.6
Phase II Near-term (by end of 2010)			
II.2	Terminal Island Wye Track Realignment	POLB	3.6
II.4	Pier B Street Realignment	POLB	12.6
II.6	Constrain Badger Bridge Lifts	POLB/LA	1.0
II.7	Track Realignment at Ocean Boulevard/Harbor Scenic Drive	POLB	20.0
II.8	Pier F Support Yard	POLB	3.4
II.11	Double Track Access from Pier G to Pier J	POLB	1.7
II.12	West Basin Rail Access Improvements	POLA	150.0
Phase III Medium-term (by end of 2015)			
III.1	Pier B Rail Yard Expansion (Phase I)	POLB	85.4
III.2	Pier B Rail Yard Expansion (Phase II)	POLB	159.9
III.3	Grade Separation for Reeves Crossing	POLB/LA	60.0
III.4	Closure of Reeves At-grade Crossing	POLB/LA	1.0
III.6	Pier 400 Second Lead Track	POLA	7.7
III.7	Reconfiguration at CP Mole	POLB/LA	20.0
Phase IV Long-term (beyond 2015)			
IV.1	Triple Track Badger Bridge	ACTA	91.0
IV.2	Triple Track South of Thenard Jct.	ACTA	16.5
	Subtotal ACTA Cost (millions)		$117.0
	Subtotal POLA Cost (millions)		$157.7
	Subtotal POLB Cost (millions)		$286.9
	Subtotal Shared POLB/LA Cost (millions)		$82.0
	Total Potential Infrastructure Cost (millions)		$643.6

Source: San Pedro Bay Ports Rail Study Update, December 2006.

Rail

RAIL CHARACTERISTICS

Railroads have been involved in moving freight through California for over 140 years. As of 2005, 29 freight railroads operate 7,335 track miles statewide, including trackage rights. The Union Pacific Railroad (UP) operates on 3,358 miles of track, a 46% share of the State's rail network. The Burlington Northern Santa Fe Railway (BNSF) operates on 2,130 miles, a 29% share. Regional, local, and short-line carriers serve the remaining 25% of the State's track miles.

With an extensive network throughout the SCAG region, rail serves as a vital link in the goods movement supply chain. Railroads are best known for the ability to move large volumes of goods over long distances. The current system sees 5 million lifts annually, of which 64% are intermodal containers.

MAINLINE RAIL

The region has an extensive mainline rail network. BNSF operates a single mainline network in the SPB ports region, the Transcon, which runs from downtown Los Angeles to Barstow with a terminus in Chicago. UP operates multiple lines in and out of the Los Angeles basin. Typically referred to as the Alhambra and Los Angeles lines, UP operates two mainlines between downtown Los Angeles and the Colton Crossing. Along these lines, UP performs "directional running" operations, where all eastbound through-trains are routed along the Los Angeles lines and westbound through-trains along the Alhambra line. North of West Colton, UP operates the Palmdale line which parallels BNSF's Transcon line, ascending the south slope of the Cajon Pass between San Bernardino and the San Gabriel Mountains. Compared to other UP lines, the Palmdale line carries relatively little traffic. UP also runs trains on BNSF's Transcon between West Riverside and Barstow-utilizing trackage rights agreements.

A key component of the Southern California rail network is the Colton Crossing. The Colton Crossing is an at-grade railroad crossing located south of I-10 between Rancho Avenue and Mount Vernon Avenue in the City of Colton, where BNSF's San Bernardino Line crosses UP's Alhambra/Yuma Lines.

In 2000, the Colton Crossing saw on average 90 freight trains per day on the BNSF San Bernardino Line, and 31 freight trains per day on the UP line. By 2010, these numbers are projected to increase by 50%, with an average of 137 BNSF freight trains and 45 UP trains transiting the Colton Crossing on a daily basis. This high volume of trains, which is expected to further increase by an additional 46% in 2025, clearly poses serious congestion, safety, and air quality challenges for the region.

Another key component of the regional rail network is the Alameda Corridor, a 20-mile, four-lane freight rail expressway that began operations in April 2002. The corridor links the SPB ports with the transcontinental rail network near downtown Los Angeles, and is composed of a series of underpasses, overpasses, and bridges that separate freight trains from passenger trains and automobiles. Since 2002, the Alameda Corridor has improved operating efficiency, and provided safety and environmental benefits for the entire region. In 2006, an average of 55 intermodal trains per day transited the Alameda Corridor, an approximate increase of 15% since 2005.

Freight rail traffic is projected to increase due to trade growth at the Ports, and robust population growth. These trends are projected to have a significant impact on the mainline rail network described above. Table 6 illustrates actual and projected freight and passenger train volumes along some of the most utilized rail segments in the region.

TABLE 6 PASSENGER AND FREIGHT TRAIN TRAFFIC VOLUMES PER PEAK DAY BY LINE SEGMENT

Line Segment	Train Type	2000	2010	2025
BNSF Hobart - Fullerton Jct.	Freight	50.0	74.1	111.9
	Psgr	46.0	96.0	106.0
	Total	96.0	170.0	207.9
BNSF Fullerton Jct. - Atwood	Freight	50.0	74.1	111.9
	Psgr	5.0	20.0	34.0
	Total	55.0	94.1	145.9
BNSF Atwood - West Riverside	Freight	57.0	82.2	121.3
	Psgr	16.0	38.0	62.0
	Total	73.0	120.2	183.3
West Riverside - Colton	UP Freight	35.2	49.8	72.9
	BNSF Freight	57.0	82.2	121.3
	Psgr	11.0	24.0	36.0
	Total	103.2	156.0	230.2
Colton Crossing	BNSF Line	90.2	137.1	201.8
	UP Yuma Line	31.0	44.6	64.7
	Total	121.2	181.7	266.5
Colton - San Bernardino	UP Freight	22.2	30.9	44.5
	BNSF Freight	57.0	82.2	121.3
	Psgr	11.0	24.0	36.0
	Total	68.0	106.2	157.3
Lines over Cajon Pass	Freight	93.7	130.0	186.7
(including BNSF/UP Cajon Line and UP Palmdale Line)	Psgr	2.0	6.0	8.0
	Total	95.7	136.0	194.7
UP Mira Loma - W. Riverside plus	Freight	64.2	90.4	126.2
UP West Colton - Colton	Psgr	14.0	26.0	44.0
	Total	78.2	116.4	170.2
UP Yuma Line	Freight	42.0	59.5	87.1
	Psgr	2.0	4.0	8.0
	Total	44.0	63.5	95.1

Source: Inland Empire Railroad Main Line Study, SCAG, June 2005.

RAIL SYSTEM CONSTRAINTS AND ISSUES

INTERMODAL RAIL YARD CAPACITY CONSTRAINTS

The region's intermodal rail yards are reaching capacity, resulting in time delays in moving both international and domestic containers between trains and trucks. According to the 2006 San Pedro Bay Ports Rail Study Update, off-dock rail yards in Southern California, which handle direct intermodal, transload, and domestic intermodal cargo, will exceed capacity between 2010-2015, meaning all direct international intermodal demand will need to be accommodated at on-dock and near-dock intermodal yards. Assuming full on-dock rail capacity enhancements are realized at the Ports in the future, Table 7 illustrates the resulting shortfall in intermodal lift capacity if no new near-dock or off-dock intermodal yards are developed in the region. This indicates that, even when considering all planned on-dock rail capacity enhancements, total direct intermodal demand will likely exceed capacity by over 2.2 million TEUs.

TABLE 7 FORECAST PORT DIRECT INTERMODAL DEMAND AND AVAILABLE INTERMODAL LIFT CAPACITY

Direct Intermodal excludes Transload All values in millions of TEU	2005 Actual	2010	2015	2020	2030
SPB Cargo Forecast (Demand)	14.20	20.20	27.10	36.20	42.50
SPB Direct Intermodal (Demand)	5.70	8.10	10.84	14.48	17.01
POLB On-Dock Capacity	1.09	2.27	4.15	5.49	6.10
POLA On-Dock Capacity	1.84	2.79	4.33	6.25	6.84
SPB Off-Dock Capacity	1.69	0.67	0.04	0.00	0.00
SPB Near-Dock Capacity	1.08	1.40	1.84	1.84	1.84
SPB Variance (negative = shortfall)	0.00	-0.97	-0.48	-0.90	-2.23

Source: San Pedro Bay Port Rail Study Update, December 2006

RAIL NETWORK CAPACITY CONSTRAINTS

SCAG has identified rail mainline capacity constraints east of Los Angeles as a critical issue facing the region. In 2000, train delays averaged more than 30 minutes and are projected to increase by over 40% by 2010 without capacity improvements. Overall, mainline capacity constraints reduce system velocity, which results in delays of time-sensitive shipments to customers nationwide.

TABLE 8 YEAR 2000 AND 2010 TRAIN DELAYS ON EXISTING TRACKAGE

Year	Train Type	Average Delay Per Train
2000	BNSF Freight	31.9 minutes
	UP Freight	30.4 minutes
2010	BNSF Freight	206.3 minutes
	UP Freight	196.9 minutes

Source: Inland Empire Railroad Main Line Study, SCAG, June, 2005.

The Colton Crossing has been identified in several previous studies as a major rail bottleneck that slows freight movement and has delayed the implementation of additional passenger rail service in the Inland Empire. The majority of freight rail traffic moving between Southern California and the rest of the nation must transit the Colton Crossing. Increasing international trade and regional population growth led the Southern California Regional Rail Authority (SCRRA) to conduct a network rail operation analysis to identify potential bottlenecks in the vicinity of the Colton Crossing. The study confirmed the need to make capital improvements to the crossing to reduce rail congestion and operational conflicts. The Inland Empire Railroad Main Line Study also confirmed the critical need for grade-separations.

The Cajon Pass is another critical transcontinental rail segment requiring capacity improvements to ensure efficient freight movement. Steep grades and curves along the Cajon Pass pose operational challenges that significantly slow trains. Presently, approximately 90 trains per day traverse the Cajon Pass.

The Inland Empire Railroad Main Line Study projected that, by 2010, the BNSF line segment between Colton Crossing and Barstow will require a minimum of three main tracks while the segment between San Bernardino and Barstow will require four main tracks by 2025. There is also a need for four main tracks on the UP lines between Los Angeles and Riverside/Colton.

Trucks

PORT RELATED TRUCKING

Given the number of truck trips generated by the Ports, port truck traffic associated with the logistics of container movements in the region must be analyzed. Depending on the geographic concentration of warehouses, distribution centers, transload facilities, and other inland facilities, some port cargo movements may be associated with high-density truck flows between origin-destination pairs including:

- Truck trips between marine terminals and near-dock/off-dock intermodal yards;
- Truck trips between marine terminals and transload/cross-dock facilities; and
- Truck trips between marine terminals and warehouse/distribution centers.

The high concentration of intermodal yards near downtown Los Angeles has resulted in significant container movements on freight corridors connecting the Ports and these facilities. However, due to the scattered nature of logistics and manufacturing facilities in the region, container movements on freight corridors between marine terminals and logistics and manufacturing facilities may not be as significant as movements between marine terminals and intermodal yards. But logistics and manufacturing facilities may generate secondary truck trips that create significant truck demand along many of the region's freight corridors.

Most port truck cargo movements associated with intermodal yards, transload facilities, and warehouses are primarily related to import containers from the SPB ports. However, there are significant empty container truck movements

between these facilities and the Ports that generate high-density port truck movements. Examples include empty container return truck trips from transload facilities and warehouses to the port terminals, and truck trips associated with empty container repositioning from off-dock intermodal yards to port terminals.

The magnitude and distribution of port-related truck traffic in the region warrants careful consideration of the feasibility of dedicated lanes for clean technology trucks to address future growth in port truck traffic volumes. A major factor in determining the feasibility of such facilities is whether high-density truck traffic exists between major origin-destination pairs. Consequently, in examining the feasibility of such facilities on certain corridors between the Ports and inland facilities, key issues pertaining to truck traffic flows and patterns must be understood. These include:

- Total truck traffic demand along the corridors between the Ports and inland facilities;
- Origin-destination (O-D) patterns of truck trips along these corridors; and
- Major generators of truck traffic demand along these corridors.

Table 9 shows the shares of port truck trips along I-710 and SR-60. For other major freight corridors in the region, please refer to Appendix A.

TABLE 9 TOTAL AND PORT TRUCK TRAFFIC ALONG I-710 AND SR-60, 2003

Highways	Segments	Total Daily Vehicle Volume	Total Daily Truck Volume	Daily Port Truck Volume	Total Trucks as % of Total Vehicle Volume	Port Trucks as % of Total Truck Volume
I-710	I-105 to I-10	324,000	15,900	2,485	4.9%	15.6%
	PCH to Willow	146,000	25,400	23,900	17.4%	94.1%
	Willow to I-405	161,000	27,100	23,235	16.8%	85.7%
	I-405 to SR-91	186,000	31,400	20,045	16.9%	63.8%
	SR-91 to I-105	227,000	38,300	15,315	16.9%	40.0%
	I-105 to I-5	237,000	34,600	11,685	14.6%	33.8%
	I-5 to SR-60	199,000	24,200	1,025	12.2%	4.2%
	SR-60 to I-10	132,000	11,300	845	8.6%	7.5%
SR-60	SR-57 to I-605	265,000	23,200	1,560	8.8%	6.7%

Source: "Baseline Transportation Study", Port of Los Angeles, 2004; Caltrans Truck Volumes 2004 (Year 2003 data).

As illustrated in Table 9, I-710 has a larger share of port-related trucks than SR-60. Port-related truck traffic and its share of total truck volume along I-710 are more highly concentrated along segments closer to the Ports. This indicates that a large number of port truck access facilities exist along I-710.

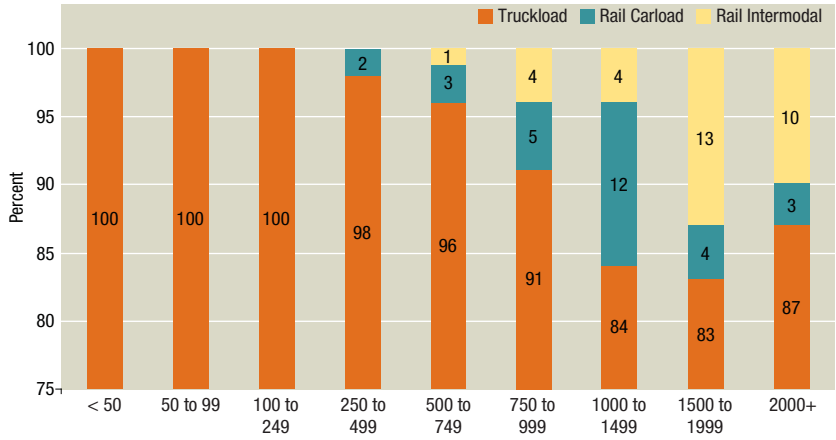
The I-710 major corridor study analyzed growth in truck traffic along I-710 based on expected growth in port container volumes. The study projected total heavy-duty truck traffic to more than double on the I-710 by 2025, with truck shares reaching up to 35% of total traffic volumes along high volume segments compared to the current shares of between 14% - 19%. Considering

the magnitude and distribution patterns of port truck trips along I-710, forecasts indicate that demand would be favorable to the implementation of dedicated lanes for clean technology trucks on I-710. Future near-dock intermodal yard capacity expansions associated with the expansion of the ICTF and the development of the Southern California International Gateway (SCIG), which is privately funded by BNSF, may also play a key role in addressing the growth of high-density truck traffic.

LOCAL TRUCKS

The vast majority of imports through the SPB ports are retail goods. SCAG's Port and Modal Elasticity study calculated local container volume based on local purchasing power associated with retail sales. According to the study, 23 % of traffic generated by the SPB ports is local traffic, meaning goods either originate or are ultimately consumed in the region which is defined as Southern California, Southern Nevada, Arizona, and New Mexico. In 2005, local consumption of the total import trade value of $256 billion was $58.8 billion. With over 75% of truck tonnage in the region moving less than 50 miles, the effect on local truck traffic is dramatic. The modal shares and lengths of haul by rail and truck are shown in Figure 1.

FIGURE 1 MODAL SHARES AND LENGTH OF HAUL



Source: Goods Movement Truck and Rail Study Executive Summary, SCAG, 2003.

SCAG's Travel Demand Model suggests that regional daily truck VMT will increase from 29.0 million in 2003 to 50.4 by 2035, an 82.7% increase. Daily delay will also increase as shown in Table 10.

TABLE 10 PROJECTED DAILY DELAY IN THE REGION

	Daily Delay (Hours)		
	2003 Base Year	2035 Baseline	2035 Plan
Autos	3,711,266	7,545,518	6,155,229
Trucks	192,555	592,733	466,598

Source: Travel Demand Model Output, SCAG, 2007.

This increase in regional VMT will reduce average freeway speeds from 51 mph in 2005 to approximately 37.5 mph in 2035. The average speed on the regional freeway system for 2003, the 2035 Baseline, and the 2035 Plan are illustrated in Exhibits 4, 5, and 6. Delays caused by congestion could increase the cost of transporting goods by as much as 50%-250%.

EXHIBIT 4 BASE YEAR 2003 FREEWAY SPEED | PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 5 BASELINE 2035 FREEWAY SPEED I PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 6 PLAN 2035 FREEWAY SPEED I PM PEAK



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

Environmental Impacts

Mitigating the community and environmental impacts of goods movement is critical to the region. Perhaps the most visible and pressing environmental impacts are the increasing volumes of criteria air pollutant emissions surrounding the Ports and major freight corridors. While trade activities in the SCAG region are key contributors to the economy, air pollution from these activities poses serious health hazards to the region, especially for communities located near the Ports and trade corridors. The California Air Resource Board (CARB) has identified particulate matter (PM) as a toxic air contaminant linked to increased health risks. Table 11 lists CARB's assessment of PM2.5 health effects on residents of the Southern California Air Basin. Table 10 chronicles other goods movement related pollutants and their health effects.

TABLE 11 CARB ASSESSMENT OF PM HEALTH EFFECTS ON SOUTHERN CALIFORNIA AIR BASIN RESIDENTS

Health Effect	Cases Per Year
Premature Deaths	5,400
Hospitalizations	2,400
Asthma & Lower Respiratory Symptoms	140,000
Lost Work Days	980,000
Minor Restricted Activity Days	5,000,000

Source: California Air Resources Board

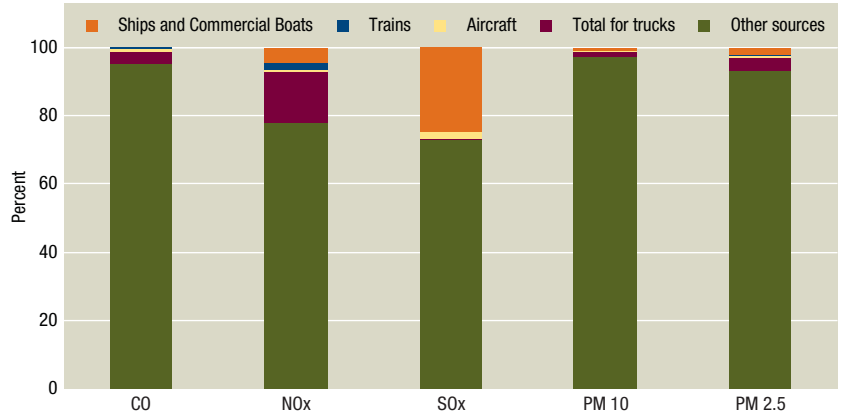
TABLE 12 OTHER GOODS MOVEMENT RELATED POLLUTANTS AND THEIR HEALTH EFFECTS

Pollutant	Health Effects
Ozone (O_3)	Breathing Difficulties, Lung Tissue Damage
Nitrogen Dioxide (NO_X)	Lung Irritation and Damage
Sulfur Dioxide (SO_X)	Increases in Lung Disease and Breathing Problems for Asthmatics
Respirable Particulate Matter (PM_{10})	Increased Respiratory Disease, Lung Damage, Cancer, Premature Death
Carbon Monoxide (CO)	Chest Pain in Heart Patients, Headaches, Reduced Mental Alertness

Source: California Air Resources Board

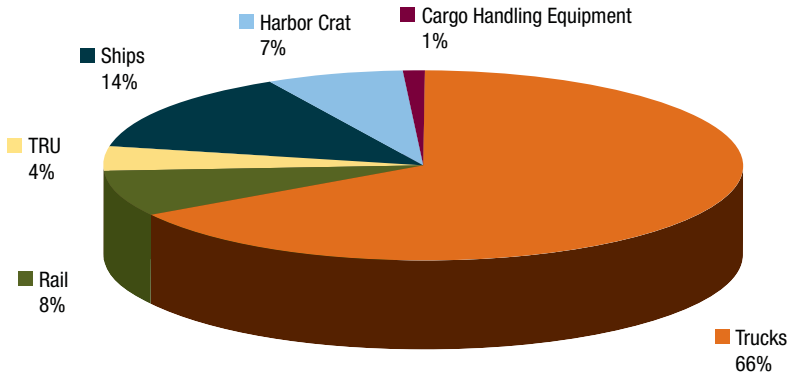
Port-related sources, which were approximately 25% of regional diesel PM emissions in 2002, are projected to increase to 50% of regional PM emissions in 2020. The CARB assessment of PM2.5 health effects indicates that the South Coast Air Basin suffers disproportionate exposure to pollutants relative to other parts of California and the rest of nation. Residents of the South Coast Air Basin are exposed to PM2.5 levels that are 82% higher than the exposure of residents statewide and 52% higher than national exposure. As shown in Figure 2, goods movement related sources contribute substantially to the region's total emissions of Nitrogen Oxides (NOX), Sulfur Oxides (SoX), PM10, PM2.5, and Carbon Monoxide (CO). Figure 3 shows statewide emissions of diesel particulate matter by goods movement sources. Air pollution is just one of many goods movement related environmental impacts identified. Other impacts include noise, vibration, aesthetic, safety, and natural resource depletion.

FIGURE 2 2008 ESTIMATED ANNUAL AVERAGE EMISSIONS IN THE SOUTH COAST AIR BASIN



Source: 2007 Air Quality Management Plan, SCAQMD

FIGURE 3 STATEWIDE EMISSIONS OF DIESEL PARTICULATE MATTER BY GOODS MOVEMENT SOURCE, 2001



Source: Emission Reduction Plan for Ports and Goods Movement in California, California EPA and California Air Resources Board (ARB), March, 2006

Safety and Security Concerns

With the growth in trade volume, accidents involving trucks and trains are expected to increase, without needed safety improvements. Accident data collected on the I-710 between 2002 and 2004 identified an average of five accidents per day between Ocean Boulevard and SR-60 on the I-710. These data also suggest that highest incident locations were primarily tied to three factors: 1) design deficiencies, 2) high traffic volumes, and 3) the mix between autos and trucks. Accidents on truck-intensive facilities are particularly problematic due to their increased severity relative to auto-exclusive accidents.

Truck-related accidents also have a significant safety impact on other modes in the transportation system. According to an FHWA report, 78 % of victims in truck-related fatalities are drivers of other vehicles and 8% are pedestrians. For a detailed discussion on truck collisions, please refer to Appendix B.

Growth in rail service also increases the potential for automobile / train interactions and rail-related fatalities at grade crossings. These emerging concerns point to the need for the region to research and implement appropriate mitigation strategies including grade separations and other grade crossing improvements.

The SCAG region is vulnerable to many types of safety and security challenges including catastrophic events, which could significantly disrupt the regional goods movement system. These challenges include earthquakes, floods, fires, hazardous material incidents, transportation accidents, and human-caused incidents such as acts of terrorism. To ensure the safety and security of residents, as well as regional economic activities, SCAG is coordinating and collaborating with various stakeholders to improve transportation security. To date, these stakeholders have developed a number of efforts and strategies to prepare for unforeseen events. Some of these efforts and strategies include:

- Identification of the operation and maintenance needs of the interstate and state highway system within the SCAG region, including the Strategic Highway Network;

- A Border Master Plan developed by California Department of Transportation (Caltrans) to ensure border security;
- A comprehensive risk analysis and security plan for the regional railroad system developed by the Railroad Security Task Force;
- Integration of security into the regional ITS architecture; and
- Collaboration of federal agencies and local law enforcement agencies to ensure safety and security at the Ports.

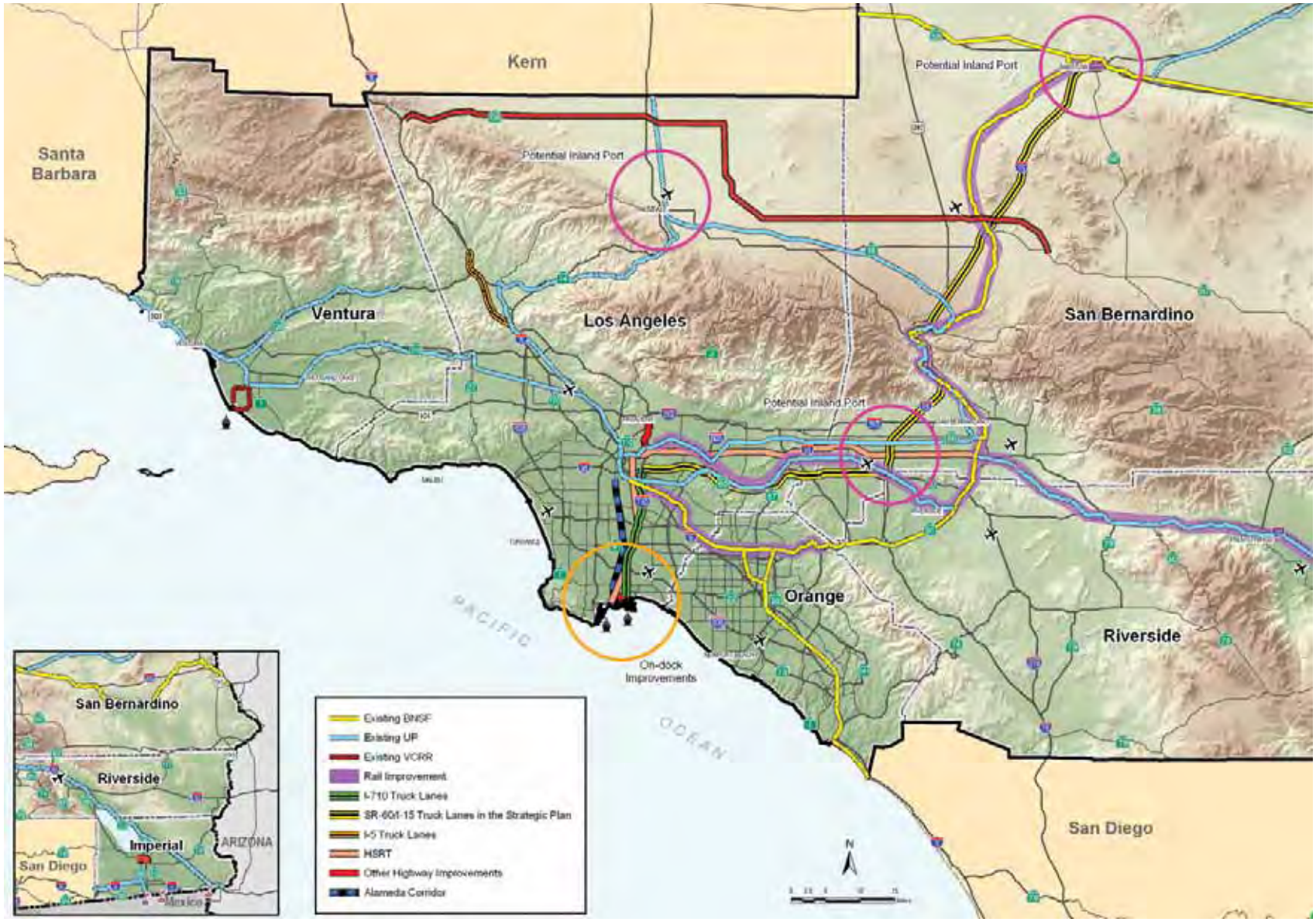
The primary agencies with responsibility for port security at the federal level include the Department of Homeland Security, United States Coast Guard, the Bureau of Customs and Border Protection (CBP), Transportation Security Administration (TSA), and the United States Maritime Administration (MARAD).

Within the port facilities themselves, security is maintained by a combination of agencies, including the U.S. Coast Guard, Customs and Border Protection, Los Angeles Port Police at the Port of Los Angeles, and the Long Beach Police Department at the Port of Long Beach who coordinate to ensure the security of the port. While all of these agencies have the authority to access all areas of the port, maintaining security inside the individual port terminals is the responsibility of the terminal operators, who are required to comply with the Maritime Transportation Security Act of 2002. This act requires terminal facilities to establish restricted areas, security patrols, access control measures, personnel identification procedures, and develop plans to address identified vulnerabilities.

In addition, the Ports of Los Angeles and Long Beach partner and coordinate their security planning with other local law enforcement agencies, such as the Los Angeles Police Department, Los Angeles County Sheriff's Department, and California Highway Patrol.

For detailed information on transportation safety and security, please see the Safety and Security reports.

EXHIBIT 7 2035 PLANNED GOODS MOVEMENT SYSTEM



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

SCAG's Regional Strategies

Exhibit 7 illustrates planned goods movement system.

REGIONAL TRUCK STRATEGIES

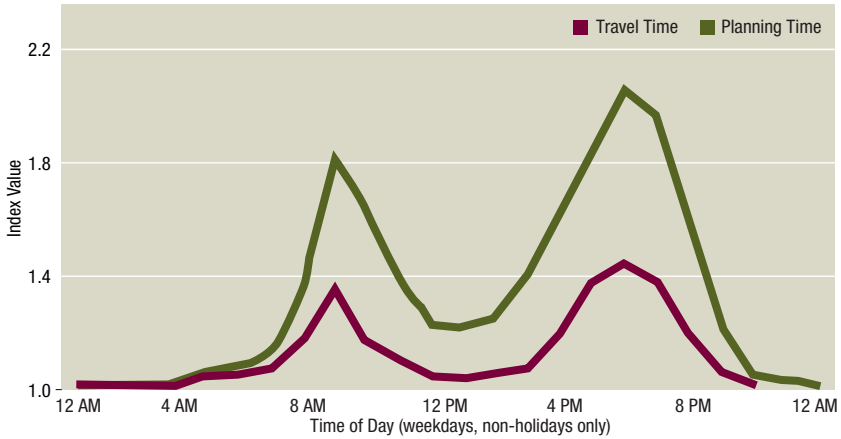
While a variety of modes of transportation are used for the movement of goods, on-road trucks perform the majority of goods movement activities in the SCAG region. Trucks utilizing the current system of local arterial streets, state highways, and interstate freeways carry approximately 80% of the total value of U.S. freight shipments. Approximately 75% of all port related freight movements are made by truck for at least one trip segment. Consequently, trucks have contributed to rising concerns about traffic congestion and public health impacts. Trucks consume upwards of 40% of total highway capacity while representing only 15% of the total number of vehicles. Forecasted growth in freight traffic has placed a greater emphasis on the need for regional efforts in addressing road congestion, air quality, and infrastructure capacity.

DEDICATED LANES FOR CLEAN TECHNOLOGY TRUCKS

Truck-related delay impacts the efficiency of goods movement in the region and ultimately increases prices paid by consumers for goods and services. Additionally, the unreliability of the highway system also increases costs of transportation as shippers build buffer times into their estimated travel times to account for the possibility of severe traffic in the region. Estimated buffer times in Southern California are twice as long as average nationwide delay for the trucking industry.

Figure 4 illustrates the variances of buffer times throughout the day in Southern California. Free-flow traffic is assigned a value of 1. For example, if the travel time index is roughly 1.3, travel time is roughly 30 % higher than free flow time. Given necessary buffer times, significant costs are incurred by trucking companies in Southern California to provide on-time service to their customers.

FIGURE 4 AVERAGE TRAVEL TIME AND BUFFER TIME VARIATIONS IN SOUTHERN CALIFORNIA



Source: SCAG

SCAG has been exploring dedicated lanes for clean technology trucks and refining the concept of user-supported, dedicated truck facilities to improve the flow of goods within the region. Operationally, these facilities would be aligned to focus on connecting freight-intensive locations such as the Ports, warehousing/distribution center locations, and manufacturing locations. Dedicated lanes would have less ingress/egress points than typical urban freeways and would be physically separated from mixed flow traffic to smooth the flow of trucks on these facilities. A network of dedicated lanes for clean technology trucks would be most advantageous for trucks that are traveling long distances and those traveling between freight-intensive locations. The corridors under consideration for such enhancements are I-710, an east-west corridor parallel to SR-60/I-10/I-210, and I-15.

Such facilities have the potential to relieve many negative truck impacts in the region, including recurrent delay, pavement deterioration, safety, emissions, and reliability. For instance, trucks are responsible for significant roadway damage including pavement deterioration. On average, one fully loaded, 80,000-pound truck causes as much pavement wear as 10,000 automobiles. By separating trucks onto designated truck lanes, pavement dam-

age and maintenance costs could be significantly reduced on the mainline freeway system. Though dedicated truck lanes may generate intensive truck use requiring expensive design and maintenance, the net result would likely be a significant reduction in total maintenance costs for the overall freeway network.

The development of such facilities would also have the potential to significantly improve the regional roadway system by addressing current system deficiencies such as:

- On/off ramps proximity to interchanges;
- Low speed/capacity connections (loop ramps);
- Missing interchanges from major freeway connections;
- Close proximity of merging ramps to interchanges;
- Non-standard weaving distances;
- Narrow or Non-Existent Shoulders; and
- Narrow Lane Widths

Despite high capital costs and the need for further analyses on environmental impacts and equity issues, the magnitude of truck volumes on regional freight corridors requires urgent mitigation. Dedicated lanes for clean trucks along I-710 could address numerous adverse impacts associated with existing truck volumes, ensuring reliable system operation and reducing adverse environmental impacts. SCAG recommends including dedicated lanes for clean trucks on I-710, creating two lanes in each direction along existing alignments extending from the Ports to SR-60. This represents an investment of over $5 billion in nominal dollars. At the same time, SCAG recognizes the need for a comprehensive system that addresses regional truck-related issues, and considers the I-710 portion the first segment of a comprehensive regional system. Other corridors, such as an east-west corridor parallel to SR-60/I-10/I-210, and I-15, which complement the comprehensive system, are in the Strategic Plan for further analyses.

TRUCK CLIMBING LANES

Truck climbing lanes are additional lanes located outside mixed-flow lanes, which permit slower-moving trucks to operate at their own pace. This enables other vehicles to move at a faster pace, thereby reducing congestion. These lanes are typically placed where slow-moving trucks would cause an obstruction to other vehicles, such as hillsides or other areas with significant grade increases. Inclusion of these lanes would add capacity to existing roadways and help reduce truck emissions by reducing delay. However, this strategy is limited to areas with significant grade increases and may only have minimum benefits on the regional transportation system. Corridors identified suitable for truck climbing lanes are I-5, I-10, I-15, I-215, SR-57 and SR-60.

HIGH DESERT CORRIDOR

In an effort to avoid the congested metropolitan area, many trucks traverse SR-138, the east-west corridor linking the Antelope and Victor Valleys. However, SR-138 currently lacks adequate infrastructure to handle heavy truck volumes. The proposed High Desert Corridor between I-15 and I-5 will accommodated an expected three- to six-fold increase in traffic, providing a new level of accessibility and carry trucks and other through traffic safely around existing communities.

TRUCK EMISSION CONTROL STRATEGIES

Heavy-duty trucks are usually powered by diesel, which contributes to regional NOX and PM emissions. New EPA emission standards taking effect in 2007 and 2010 will require strict emission reductions in both NOX and PM. Truck emission reduction strategies are listed below. While these strategies do not address congestion or capacity issues, they do provide support for the mitigation of freight emissions.

- Truck Replacement: This strategy assumes that truck owners replace older model trucks with newer trucks, with proof of disposal to prohibit resale within the SCAG region.

- Engine Repowering: This strategy is generally feasible for pre-1994 trucks and can be obtained at lower capital costs than replacing the entire truck. This strategy replaces older diesel truck engines with cleaner diesel or alternative fuel engines. Similar to the truck replacement strategy, proof of disposal is required to ensure that the engine is not resold into the region.
- Exhaust Treatment Device Retrofit: Diesel particulate filters (DPFs), flow-through filters (FTFs), and diesel oxidation catalysts (DOCs) are easily retrofitted to existing trucks with only minor modifications to the existing system. While CARB has not certified emission reduction amounts, DPFs, FTFs and DOCs are expected to reduce PM emissions by at least 50% and 25% respectively.
- Alternative Fuels: There are a variety of alternative fuels that can reduce truck emissions such as emulsified diesel, bio-diesel, natural gas, propane, and new hybrid-electric technologies.

Due to the costs associated with truck emission control strategies, monetary incentives may be necessary for implementation purposes. Various agencies are finalizing their incentive programs to support similar truck emission reduction programs. These incentive programs include:

- The Clean Air Action Plan – Technology Advancement Program by the SPB ports;
- The Port of Los Angeles' Port Air Quality Mitigation Incentive (PAQMIP); and
- The Carl Moyer Program by South Coast air Quality management District (SCAQMD) .

REGIONAL RAIL STRATEGIES

Given its superior connections to inland locations, freight rail is key to the region's economy. Over the next 25 years, at least half of the containers coming through the Ports will be transported via rail. Table 13 illustrates this growth. Over the same period, commuter rail needs will also double. To address these issues, SCAG is proposing rail system capacity enhancements, rail grade separations, and alternative strategies to reduce rail emissions.

TABLE 13 SAN PEDRO BAY PORTS CARGO GROWTH FORECASTS* (TEUS IN MILLIONS)

	2005 (Actual)	2010	2015	2020	2030
Total Port Container Throughput	14.2	20.3	27.1	36.2	42.5
Regional Truck Demand	6.8	9.7	13.0	17.4	20.4
Long Haul Truck Demand	0.1	0.2	0.3	0.4	0.4
Total Rail Demand**	7.2	10.3	13.8	18.5	21.7
Rail Share of Total Throughput	50.7%	50.7%	50.9%	51.1%	51.1%

* Total San Pedro Bay projections are based on Mercer Management forecast as adjusted by Port of Los Angeles and Port of Long Beach
** Includes transload to rail

Source: The San Pedro Bay Ports

RAIL MAINLINE CAPACITY IMPROVEMENTS

As a system, rail transports goods more efficiently, and emits three times less pollutants than trucks. While the current system manages both passenger rail and freight rail, current projections indicate severe system shortfalls in near the future. To ensure sound operations, existing system infrastructure must be expanded and grade separations at critical crossings must be completed. Exhibit 8 identifies planned projects for regional rail capacity enhancements. Critical mainline track capacity improvements in the region are associated with UP and BNSF lines. BNSF's Transcon track capacity improvements include:

- Additional 3rd and 4th mainline tracks between Hobart/Commerce and Fullerton;
- Additional 3rd mainline tracks for Fullerton - Placentia, Placentia - Yorba Linda, Prado Dam – Riverside, and Highgrove - M.P. 2.9 segments; and
- Additional 4th mainline track between Riverside and Colton.

UP's mainline capacity improvements include:

- Additional 2nd main track for West Riverside - Riverside, Riverside - Pedley, and Bon view - Ontario segments; and
- Additional 2nd main track for Pomona - Montclair, and Alhambra - Walnut.

Colton Crossing is also a highly important capacity enhancement project which involves both BNSF and UP lines. Improvements would provide significant public and private sector benefits to the region including:

- Improved operational efficiency resulting from increased speed through the crossing;
- Increased rail network capacity resulting in increased train throughput;
- Economic benefits resulting from increased employment associated with increased throughput through the crossing;
- Environmental benefits due to emissions reductions resulting from elimination of train idling, and enhanced train speeds through the crossing; and
- Environmental benefits associated with commuter VMT reduction resulting from increased commuter rail service.

RAIL GRADE SEPARATIONS

Vehicle delay at grade crossings is expected to triple between 2000 and 2025. Allowing two intersecting axes of traffic to move concurrently, grade crossings eliminate vehicle delay and decrease associated emissions by reducing vehicle idling times. This also means that longer trains may be formed, thus increasing operating efficiencies by permitting the transport of larger volumes of goods per trip.

The projected growth in freight and passenger train volumes make it critical to separate grade crossings in order to ensure an efficient goods movement system, to reduce traffic congestion and delays, and to meet regional air quality conformity requirements. Grade separations also address other rail crossing related concerns such as noise and safety.

Throughout the SCAG region, 131 grade crossings requiring grade separations were identified by the Alameda Corridor-East Trade Corridor Plan. These grade separation projects would cost an estimated $5.99 billion to implement.

Exhibits 9, 10, 11, and 12 show proposed grade separation projects planned in the region by county.

LOCOMOTIVE ENGINE UPGRADES

Upgrading locomotives to cleaner engines is another strategy to reduce diesel emissions. In March 2007, the EPA proposed new Tier 3 and Tier 4 engine standards to reduce emissions from diesel locomotives. Tier 3 standards are near-term engine-out emission reduction standards for PM and NOX. Tier 4 standards are longer-term standards for newly-built engines. These standards will be phased in over time, and would be based on the application of high-efficiency catalytic aftertreatment technologies which would be enabled by the availability of ultra low sulfur diesel fuel. Tier 3 engines are expected to be available in 2009, and Tier 4 engines are expected to be available in 2015. While these technologies may reduce emissions significantly, Tier 3 engines will not reduce emissions by the amount required to meet the EPA's attainment deadline for PM2.5, and Tier 4 engines will not be available to meet the 2014 deadline. However, these strategies can be implemented at substantially lower capital costs than other alternatives such as system electrification. SCAG is exploring methods to accelerate implementation of this strategy through measures such as financial incentives to engine manufacturers and railroads.

EXHIBIT 8 PLANNED PROJECTS FOR REGIONAL RAIL CAPACITY ENHANCEMENT



Rail Capacity Improvements

No	Railroad	County	Improvements
1A	BNSF	Orange/Los Angeles	3rd main track, Fullerton(Basta) - City of Commerce (Bandini)
1B	BNSF	Orange/Los Angeles	4th main track, Hobart-Fullerton
2A	BNSF	Orange	3rd main track, Placentia(Atwood) - Yorba Linda(Esperanza), Prado Dam-Riverside, and Highgrove to MP 2.9
2B	BNSF	Orange	3rd main track, Fullerton-Placentia(Atwood)
3	BNSF	Riverside/San Bernardino	4th main track, Riverside-Colton
4	BNSF	Riverside	Flying Junction at Riverside
5	BNSF	San Bernardino	Colton Crossing to Barstow
6	UP	Riverside/San Bernardino	2nd main track, W. Riverside-Riverside (Streeter), Riverside (Arlington)-Pedley, Bon View-Ontario(Tower)
7	UP	Los Angeles	2nd main track, Pomona(Oak)-Montclair (Roselawn)
8	UP	Los Angeles	2nd main track, Alhambra - Walnut
9	UP	San Bernardino	Flying junction of Palmdale Line at West Colton (Rancho)
10	UP	Riverside/San Bernardino	Colton Crossing to Indio
11		San Bernardino	Grade Sep. @ Colton Crossing (Rail to Rail)
12	UP	Los Angeles	Flying junction at Pomona

Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

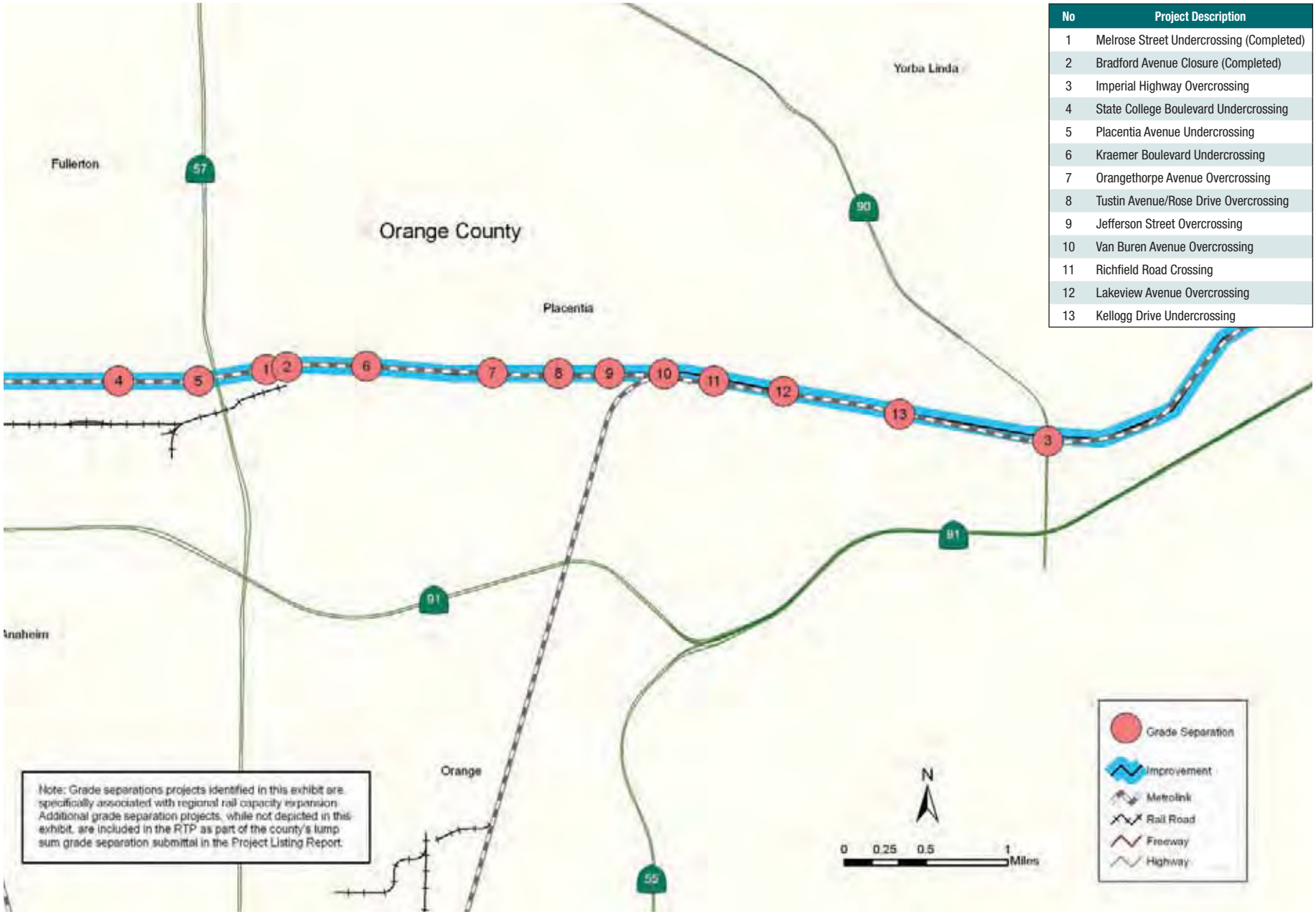
EXHIBIT 9 GRADE SEPARATION PROJECTS IN LOS ANGELES COUNTY



No	Project Description
1	Nogales Street/SP - Industry (Completed)
2	Ramona Boulevard/SP - El Monte
3	East End Avenue/SP&UP - Pomona
4	Reservoir Street/SP&UP - Pomona
5	Temple Avenue/SP - Pomona
6	Brea Canyon Road/UP - Industry
7	Sunset Avenue/SP - Industry
8	Baldwin Avenue/SP - El Monte
9	Nogales Street/UP - Industry
10	Valley Boulevard/SP - Los Angeles
11	Passons Boulevard/BNSF - Pico Rivera
12	Valley View Avenue/BNSF - Santa Fe Springs
13	Rosecrans Avenue/BNSF - Santa Fe Springs
14	Norwalk/BNSF - Santa Fe Springs/Gateway
15	Durfee Avenue/UP - Pico Rivera
16	San Gabriel Trench - San Gabriel
17	Turnbull Canyon Road/UP - Industry
18	Rose Hills/UP - Industry
19	Puente Avenue/SP - Industry
20	Fairway Drive/SP - Industry
21	Fairway Drive/UP - Industry
22	Montebello Boulevard/UP - Montebello
23	Fullerton Road/SP - Industry
24	Temple Avenue/SP - Industry
25	Lemon Avenue/SP - Industry
26	Brea Canyon Road/SP - Industry
27	San Antonio Avenue/SP&UP - Pomona
28	Lower Azusa Road/SP - Temple City
29	Fullerton Road/UP - Industry
30	Hamilton Boulevard/SP&UP - Pomona
31	Park Avenue/SP&UP - Pomona
32	Temple City Boulevard/SP - El Monte
33	California Avenue/SP - Industry
34	Walnut Grove Avenue/SP - Rosemead
35	Lemon Avenue/UP - Industry
36	Vineland Avenue/SP - Industry
37	Arden Drive/SP - El Monte
38	Stimson Avenue/UP - Industry
39	Palomares Street/SP&UP - Pomona
40	Cogswell Road/SP - El Monte

Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

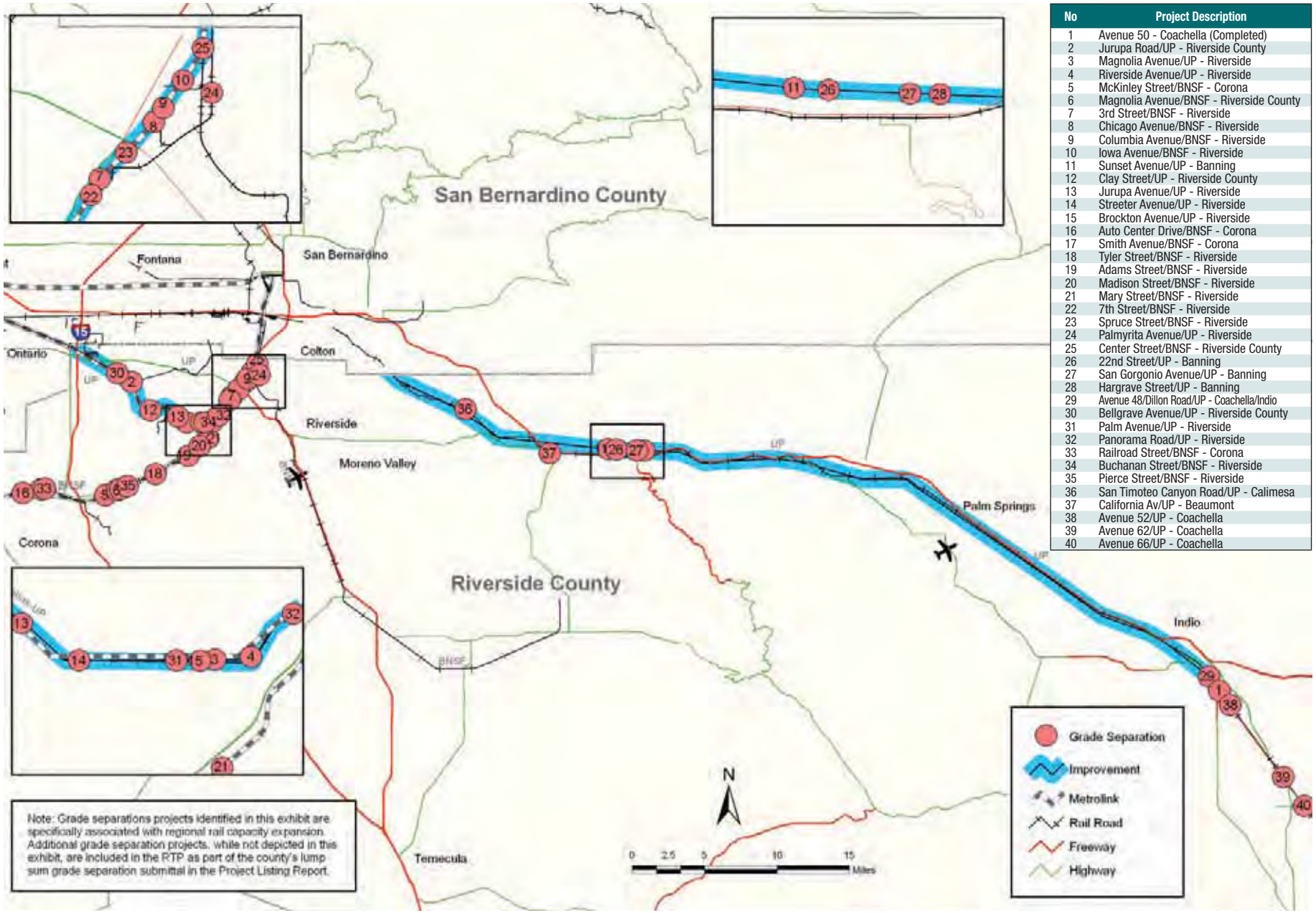
EXHIBIT 10 GRADE SEPARATION PROJECTS IN ORANGE COUNTY



No	Project Description
1	Melrose Street Undercrossing (Completed)
2	Bradford Avenue Closure (Completed)
3	Imperial Highway Overcrossing
4	State College Boulevard Undercrossing
5	Placentia Avenue Undercrossing
6	Kraemer Boulevard Undercrossing
7	Orangethorpe Avenue Overcrossing
8	Tustin Avenue/Rose Drive Overcrossing
9	Jefferson Street Overcrossing
10	Van Buren Avenue Overcrossing
11	Richfield Road Crossing
12	Lakeview Avenue Overcrossing
13	Kellogg Drive Undercrossing

Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

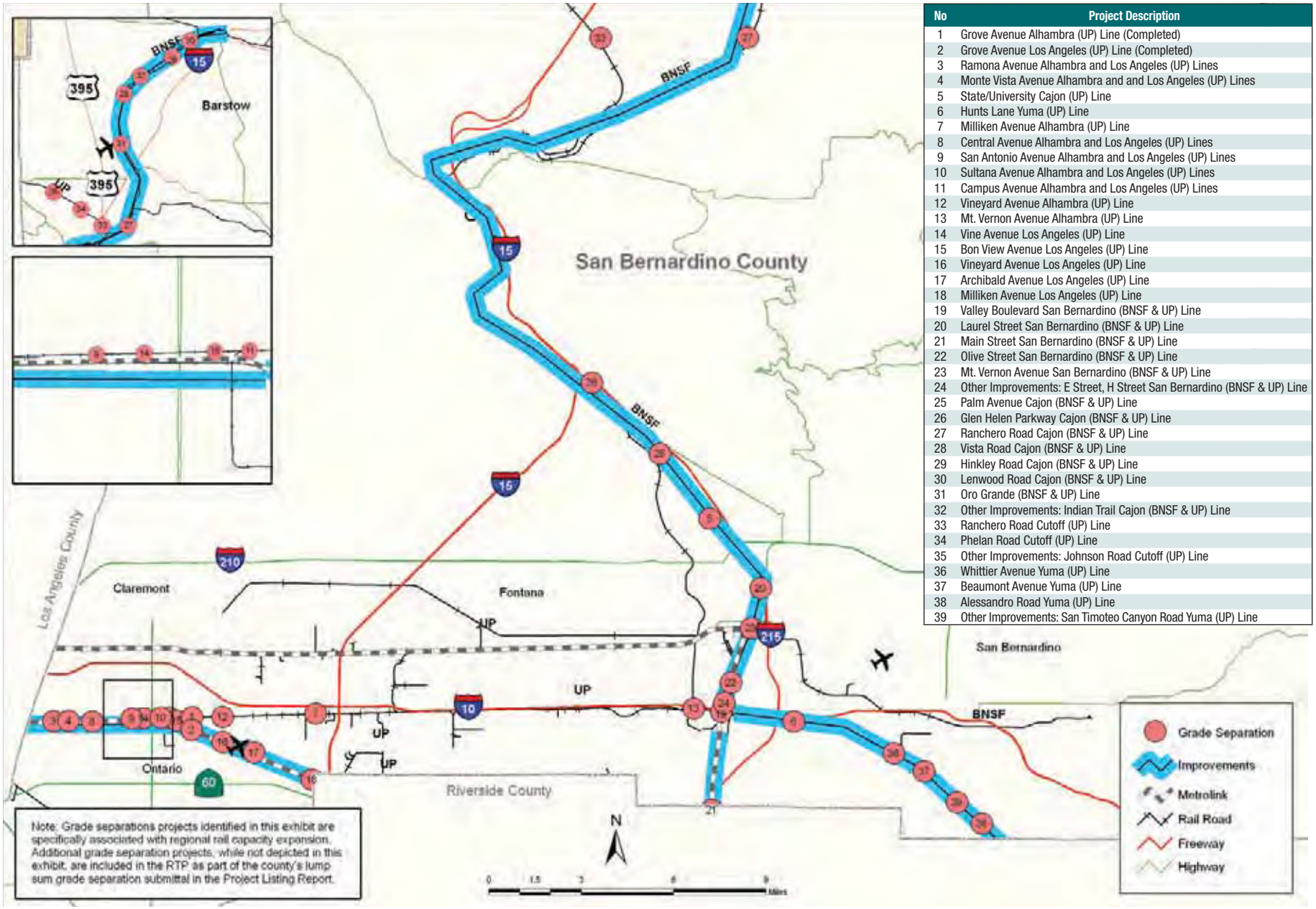
EXHIBIT 11 GRADE SEPARATION PROJECTS IN RIVERSIDE COUNTY



No	Project Description
1	Avenue 50 - Coachella (Completed)
2	Jurupa Road/UP - Riverside County
3	Magnolia Avenue/UP - Riverside
4	Riverside Avenue/UP - Riverside
5	McKinley Street/BNSF - Corona
6	Magnolia Avenue/BNSF - Riverside County
7	3rd Street/BNSF - Riverside
8	Chicago Avenue/BNSF - Riverside
9	Columbia Avenue/BNSF - Riverside
10	Iowa Avenue/BNSF - Riverside
11	Sunset Avenue/UP - Banning
12	Clay Street/UP - Riverside County
13	Jurupa Avenue/UP - Riverside
14	Streeter Avenue/UP - Riverside
15	Brockton Avenue/UP - Riverside
16	Auto Center Drive/BNSF - Corona
17	Smith Avenue/BNSF - Corona
18	Tyler Street/BNSF - Riverside
19	Adams Street/BNSF - Riverside
20	Madison Street/BNSF - Riverside
21	Mary Street/BNSF - Riverside
22	7th Street/BNSF - Riverside
23	Spruce Street/BNSF - Riverside
24	Palmyrita Avenue/UP - Riverside
25	Center Street/BNSF - Riverside County
26	22nd Street/UP - Banning
27	San Gorgonio Avenue/UP - Banning
28	Hargrave Street/UP - Banning
29	Avenue 48/Dillon Road/UP - Coachella/Indio
30	Bellgrave Avenue/UP - Riverside County
31	Palm Avenue/UP - Riverside
32	Panorama Road/UP - Riverside
33	Railroad Street/BNSF - Corona
34	Buchanan Street/BNSF - Riverside
35	Pierce Street/BNSF - Riverside
36	San Timoteo Canyon Road/UP - Calimesa
37	California Av/UP - Beaumont
38	Avenue 52/UP - Coachella
39	Avenue 62/UP - Coachella
40	Avenue 66/UP - Coachella

Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

EXHIBIT 12 GRADE SEPARATION PROJECTS IN SAN BERNARDINO COUNTY



No	Project Description
1	Grove Avenue Alhambra (UP) Line (Completed)
2	Grove Avenue Los Angeles (UP) Line (Completed)
3	Ramona Avenue Alhambra and Los Angeles (UP) Lines
4	Monte Vista Avenue Alhambra and and Los Angeles (UP) Lines
5	State/University Cajon (UP) Line
6	Hunts Lane Yuma (UP) Line
7	Milliken Avenue Alhambra (UP) Line
8	Central Avenue Alhambra and Los Angeles (UP) Lines
9	San Antonio Avenue Alhambra and Los Angeles (UP) Lines
10	Sultana Avenue Alhambra and Los Angeles (UP) Lines
11	Campus Avenue Alhambra and Los Angeles (UP) Lines
12	Vineyard Avenue Alhambra (UP) Line
13	Mt. Vernon Avenue Alhambra (UP) Line
14	Vine Avenue Los Angeles (UP) Line
15	Bon View Avenue Los Angeles (UP) Line
16	Vineyard Avenue Los Angeles (UP) Line
17	Archibald Avenue Los Angeles (UP) Line
18	Milliken Avenue Los Angeles (UP) Line
19	Valley Boulevard San Bernardino (BNSF & UP) Line
20	Laurel Street San Bernardino (BNSF & UP) Line
21	Main Street San Bernardino (BNSF & UP) Line
22	Olive Street San Bernardino (BNSF & UP) Line
23	Mt. Vernon Avenue San Bernardino (BNSF & UP) Line
24	Other Improvements: E Street, H Street San Bernardino (BNSF & UP) Line
25	Palm Avenue Cajon (BNSF & UP) Line
26	Glen Helen Parkway Cajon (BNSF & UP) Line
27	Ranchero Road Cajon (BNSF & UP) Line
28	Vista Road Cajon (BNSF & UP) Line
29	Hinkley Road Cajon (BNSF & UP) Line
30	Lenwood Road Cajon (BNSF & UP) Line
31	Oro Grande (BNSF & UP) Line
32	Other Improvements: Indian Trail Cajon (BNSF & UP) Line
33	Ranchero Road Cutoff (UP) Line
34	Phelan Road Cutoff (UP) Line
35	Other Improvements: Johnson Road Cutoff (UP) Line
36	Whittier Avenue Yuma (UP) Line
37	Beaumont Avenue Yuma (UP) Line
38	Alessandro Road Yuma (UP) Line
39	Other Improvements: San Timoteo Canyon Road Yuma (UP) Line

Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

TABLE 14 SBD CAPACITY SHARED GUIDEWAY WITH PASSENGER SERVICE - 9.2M TEU

Operating Period				Trains/Day/Direction		Potential Capacity				
	Hr/Day	Trains/Hr/Direction		Passenger	Freight	Per Day and Direction				Per Year and Direction
		Passenger	Freight			Passenger	Freight			(24/7 Operation)
							20 ft	40 ft	TEU	TEU
Peak	8	6	6	48	48	42,528	96	1,824	3,744	1,366,560
Off-Peak	10	3	9	30	90	26,580	180	3,420	7,020	2,562,300
Night	2	0	12	0	24	-	48	912	1,872	683,280
Maintenance	4	0	0	0	0	-	-	-	-	-
Total	24	9	27	78	162	69,108	324	6,156	12,636	4,612,140
Total Passengers/Freight in Both Directions						**138,216**	**648**	**12,312**	**25,272**	**9,224,280**

Source: IBI Group

GOODS MOVEMENT HIGH SPEED RAIL TRANSPORT (HSRT) FOR FREIGHT

The region is also exploring new HSRT systems that may provide greater throughput and reliability with near zero emissions. A recent analysis carried out by the IBI Group considered the application of a HSRT system for the movement of containers (logistics and systems technology) to and from the SPB ports. The HSRT container movement system would provide a high capacity, fast, efficient, and environmentally sensitive method of moving containerized cargo from the Ports to inland port facilities in San Bernardino. The HSRT system capitalizes on the inherent savings of multiple uses on a single infrastructure by operating on shared alignments with a HSRT passenger system. The technology permits operation of HSRT freight vehicles on a shared guideway with passenger vehicles even during peak hour service. Freight vehicle trips can be interspersed with passenger trips while still meeting required passenger vehicle headways. Additionally, full utilization of the freight line can be achieved during the passenger system's off-peak hours.

The freight component of the HSRT system would begin at the Ports and connect to the Initial Operating Segment (IOS) at a point just east of Los Angeles Union Passenger Terminal. The assumed alignment would run north-south and follow a route parallel to the I-710/Alameda Corridor. After connecting to the IOS and other segments, the freight-only service would be interspersed with passenger service.

Table 14 shows current estimates, which indicate that a HSRT container movement system is capable of moving over 25,272 containers per day or over 9.2 million TEUs annually. The total freight component is estimated to cost nearly $18 billion in nominal dollars.

INLAND PORT STRATEGY

The region is confronting serious long-term freight mobility issues. Straightforward capacity increases that worked in the past – more highways, larger ports – are not enough for the future and may endanger the environment, tax the budget, and impact communities. Inland ports and related initiatives have been proposed as solutions to freight mobility issues. An inland port would be located further away from the Ports with transportation systems other than existing freight corridors moving goods between the Ports and the inland port. The broad potential benefits of an inland port include facilitating goods movement, encouraging economic development, reducing traffic congestion, and promoting regional objectives. The development of

inland ports is also critical to the HSRT system. Based on studies conducted by SCAG, development of inland ports served by rail shuttle trains would reduce net truck VMT, lower net emissions, and encourage efficient patterns of industrial development and land use. Establishment of inland port facilities would require ongoing operating subsidies along with significant capital investment. Implementation of an inland port/rail shuttle facility would require identification of a target market, securing of sites, improvements in the existing port rail network, and cooperation with railroads. The Inland Empire area has been recognized as the most promising location for an inland port facility to address existing goods movement needs due to current demand and infrastructure. However, land availability in the area for an inland port facility is rapidly decreasing. This suggests that more suitable candidates for a future inland port facility may be found in areas where land scarcity is not a pressing concern- areas such as Barstow, Victorville, and North Los Angeles County. However, inland port facilities and associated costs need to be further evaluated.

Next Steps

SCAG strives to ensure quality of life beyond the 2008 RTP as reflected by its ongoing efforts to identify innovative solutions for the region's goods movement system. Several projects have been included in the RTP's Strategic Plan for feasibility analyses and to promote a long-term policy dialogue regarding potential solutions to the region's goods movement challenges.

These strategic projects include an extensive network of dedicated lanes for clean technology trucks, an extension of planned HSRT, establishment of inland port facilities at strategic locations, and freight rail electrification. In addition to these efforts, SCAG is currently preparing two regionally significant studies. One study would be a careful evaluation of regional goods movement system and potential implementation strategies. The other focuses on pricing mechanisms and identification of reliable financing sources for the entire system, including goods movement projects of regional significance.

Finding solutions to many of the problems faced by the region will require the involvement of stakeholders from both the public and private sectors. Private entities have recognized the challenges related to goods movement in the region and are increasingly embarking upon efforts to improve system efficiency. One example has been UP's plan to modernize ICTF, which would double this facility's capacity while at the same time improving operational efficiency and environmental standards. The BNSF has also proposed developing a privately funded near-dock facility called SCIG, which is projected to accommodate increasing trade volumes while also reducing truck traffic on the I-710.

Goods movement is a vital component of the region's transportation system as well as the economy. Based upon trends identified in this RTP, it is evident that growth in this sector will continue to have lasting impacts upon the region, its transportation systems, and the environment. By pursuing best suited solutions and collaborating with stakeholders, SCAG will continue working to develop a better future for goods movement systems in the region.

Appendix A: Comparison of Port Truck Volumes to Total Daily Truck Volumes on Regional Roadways, Year 2003

Highways	Segments	Total Daily Vehicle Volume	Total Daily Truck Volume	Daily Port Truck Volume	Total Trucks as % of Total Vehicle Volume	Port Trucks as % of Total Truck Volume
I-110	PCH to Sepulveda	148,000	9,900	7,810	6.7%	78.9%
	Sepulveda to I-405	226,000	11,900	7,335	5.3%	61.6%
	I-405 to SR-91	266,000	23,900	6,015	9.0%	25.2%
	SR-91 to I-105	247,000	17,800	4,680	7.2%	26.3%
I-710	I-105 to I-10	324,000	15,900	2,485	4.9%	15.6%
	PCH to Willow	146,000	25,400	23,900	17.4%	94.1%
	Willow to I-405	161,000	27,100	23,235	16.8%	85.7%
	I-405 to SR-91	186,000	31,400	20,045	16.9%	63.8%
	SR-91 to I-105	227,000	38,300	15,315	16.9%	40.0%
	I-105 to I-5	237,000	34,600	11,685	14.6%	33.8%
	I-5 to SR-60	199,000	24,200	1,025	12.2%	4.2%
	SR-60 to I-10	132,000	11,300	845	8.6%	7.5%
I-405	I-605 to I-710	289,000	15,700	1,875	5.4%	11.9%
	I-710 to I-110	283,000	15,400	2,965	5.4%	19.3%
	I-110 to SR-91	270,000	14,600	1,960	5.4%	13.4%
	SR-91 to I-105	294,000	12,100	1,810	4.1%	15.0%
	I-105 to I-10	310,000	12,800	1,590	4.1%	12.4%
SR-91	SR-57 to I-5	250,000	21,800	1,135	8.7%	5.2%
	I-5 to I-605	283,000	39,900	1,470	14.1%	3.7%
	I-605 to I-710	263,000	37,100	2,870	14.1%	7.7%
	I-710 to I-110	212,000	13,700	1,385	6.5%	10.1%
	I-110 to I-405	67,000	1,500	195	2.2%	13.0%
I-105	I-605 to I-710	212,000	18,800	2,800	8.9%	14.9%
	I-710 to I-110	231,000	14,700	1,605	6.4%	10.9%
	I-110 to I-405	243,000	13,800	390	5.7%	2.8%

Highways	Segments	Total Daily Vehicle Volume	Total Daily Truck Volume	Daily Port Truck Volume	Total Trucks as % of Total Vehicle Volume	Port Trucks as % of Total Truck Volume
I-5	SR-57 to SR-91	223,000	21,400	225	9.6%	1.1%
	SR-91 to I-605	199,000	18,600	160	9.3%	0.9%
	I-605 to I-710	249,000	23,200	195	9.3%	0.8%
	I-710 to SR-60	267,000	20,600	1,800	7.7%	8.7%
	SR-60 to I-10	247,000	20,400	710	8.3%	3.5%
SR-60	SR-57 to I-605	265,000	23,200	1,560	8.8%	6.7%
I-105	SR-57 to I-605	259,000	18,100	1,775	7.0%	9.8%
	I-605 to I-710	234,000	14,200	585	6.1%	4.1%
	I-710 to I-5	254,000	9,000	190	3.5%	2.1%
	SR-60 to I-110	284,000	21,600	300	7.6%	1.4%
I-605	I-405 to SR-91	245,000	11,300	20	4.6%	0.2%
	I-105 to I-5	297,000	41,900	4,100	14.1%	9.8%
	I-5 to SR-60	265,000	37,400	3,825	14.1%	10.2%
	SR-60 to I-10	224,000	26,800	1,815	12.0%	6.8%
SR-57	I-5 to SR-91	276,000	18,800	10	6.8%	0.1%
	SR-91 to SR-60	296,000	23,400	135	7.9%	0.6%
	SR-60 to I-10	139,000	9,100	40	5.8%	0.5%

Source: "Baseline Transportation Study", Port of Los Angeles, 2004; Caltrans Truck Volumes 2004 (Year 2003 data).

Appendix B: Truck-involved Traffic Collisions in Southern California

This section summarizes key findings of truck-involved traffic collisions in Southern California by using the Statewide Integrated Traffic Records System (SWITRS) data. The results include historical trends analysis (1996 – 2005) and characteristics of collisions involving trucks in 2005.

TABLE B1 TRUCK-INVOLVED FATAL COLLISIONS (1996 – 2005)

County/Region/State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Imperial	4	5	8	5	8	9	3	6	8	3
Los Angeles	65	70	54	48	63	72	55	56	60	50
Orange	10	16	10	15	9	14	12	14	15	15
Riverside	21	25	28	27	25	20	21	28	30	22
San Benardino	29	36	32	36	34	27	28	29	36	34
Ventura	6	7	6	3	4	5	7	9	6	2
SCAG Region	135	159	138	134	143	147	126	142	155	126
Percent of CA	36%	44%	40%	40%	39%	41%	37%	42%	45%	37%
California, excluding SCAG region	238	205	205	200	223	215	219	197	187	217
California	373	364	343	334	366	362	345	339	342	343

TABLE B2 TRUCK-INVOLVED INJURY COLLISIONS (1996 - 2005)

County/Region/State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Imperial	61	63	71	57	43	55	42	54	50	46
Los Angeles	2,520	2,375	2,307	2,428	2,446	2,511	2,344	2,338	2,087	2,210
Orange	524	544	563	537	560	487	449	461	497	524
Riverside	337	370	404	412	429	441	455	544	562	558
San Benardino	614	614	626	693	633	692	679	755	781	703
Ventura	134	166	141	136	143	155	166	151	124	133
SCAG Region	4,190	4,132	4,112	4,263	4,254	4,341	4,135	4,303	4,101	4,174
Percent of CA	50%	49%	49%	49%	49%	50%	50%	52%	52%	53%
California, excluding SCAG region	4,158	4,289	4,335	4,360	4,441	4,388	4,095	3,938	3,848	3,636
California	8,348	8,421	8,447	8,623	8,695	8,729	8,230	8,241	7,949	7,810

TABLE B3 PERCENTAGE OF TRUCK-INVOLVED COLLISIONS, 2005

County/Region/State	Fatal	Injury	Property-Damage-Only	Total
Imperial	7.7%	7.0%	11.7%	9.8%
Los Angeles	7.2%	3.8%	7.6%	6.2%
Orange	7.9%	3.3%	6.1%	5.1%
Riverside	7.3%	5.4%	8.4%	7.3%
San Benardino	9.4%	6.5%	9.3%	8.4%
Ventura	3.2%	3.1%	5.0%	4.3%
SCAG Region	7.6%	4.2%	7.6%	6.3%
California, excluding SCAG region	10.0%	3.7%	6.5%	5.5%
California	9.0%	3.9%	7.0%	5.9%

TABLE B4 TYPES OF TRUCK-INVOLVED COLLISIONS, 2005

	Fatal		Injury		Property-Damage-Only		Total	
County/Region/State	Collisions	Percent	Collisions	Percent	Collisions	Percent	Collissions	Percent
Imperial	3	1.8%	47	28.7%	114	69.5%	164	100%
Los Angeles	50	0.5%	2,229	23.8%	7,077	75.6%	9,356	100%
Orange	15	0.7%	531	24.6%	1,608	74.7%	2,155	100%
Riverside	22	1.1%	571	27.3%	1,495	71.6%	2,088	100%
San Benardino	34	1.2%	721	25.6%	2,065	73.2%	2,820	100%
Ventura	2	0.4%	134	26.7%	366	72.9%	502	100%
SCAG Region	126	0.7%	4,233	24.8%	12,726	74.5%	17,085	100%
California, excluding SCAG region	217	1.5%	3,577	25.0%	10,537	73.5%	14,331	100%
California	343	1.1%	7,810	24.9%	23,263	74.0%	31,416	100%

TABLE B5 TOP TWENTY HIGHWAYS WITH MOST TRUCK-INVOLVED COLLISIONS, 2005

Rank	Primary Road	Collisions	Percent
1	RT 10	1,571	9.2%
2	RT 5	1,548	9.1%
3	RT 15	946	5.5%
4	RT 60	938	5.5%
5	RT 405	725	4.2%
6	RT 91	725	4.2%
7	RT 101	549	3.2%
8	RT 710	545	3.2%
9	RT 215	432	2.5%
10	RT 210	420	2.5%
11	RT 605	418	2.4%
12	RT 57	305	1.8%
13	RT 110	262	1.5%
14	RT 118	145	0.8%
15	RT 14	142	0.8%
16	RT 105	127	0.7%
17	RT 40	106	0.6%
18	RT 55	95	0.6%
19	RT 22	91	0.5%
20	RT 134	85	0.5%
Top 20 Routes Total		10,175	60%
Grand Total		17,085	100%

TABLE B6 TYPE OF TRUCK-INVOLVED COLLISIONS, 2005

Type of Collision	Collisions	Percent
Sidewipe	7,314	43%
Rear End	5,175	30%
Hit Object	1,747	10%
Broadside	1,706	10%
Overturned	365	2%
Head-On	265	2%
Vehicle/Pedestrian	60	0.4%
Other	453	3%
Total	17,085	100%

TABLE B7 CONTRIBUTING FACTORS OF TRUCK-INVOLVED COLLISIONS

Violation Category	Collisions	Percent
Unsafe Speed	4,417	25.9%
Unsafe Lane Change	4,186	24.5%
Improper Turning	3,305	19.3%
Other Than Driver (or Pedestrian)	821	4.8%
Automobile Right of Way	740	4.3%
Improper Passing	477	2.8%
Driving Under the Influence of Alcohol or Drug	459	2.7%
Other Hazardous Violation	443	2.6%
Other Equipment	348	2.0%
Traffic Signals and Signs	335	2.0%
Following too Closely	235	1.5%
Wrong Side of Road	228	1.3%
Other Improper Driving	122	0.7%
Brakes	94	60.0%
Pedestrian Violation	32	20.0%
Hazardous Parking	27	20.0%
Impeding Traffic	20	10.0%
Lights	15	10.0%
Pedestrain Right of Way	8	0.05%
Fell Asleep	5	0.03%
Not Stated	228	1.3%
Unknown	522	3.1%
Total	17,085	100.0%

FIGURE B1 PERCENT OF TRUCK-INVOLVED AND PASSENGER-CAR-ONLY COLLISIONS BY HOUR

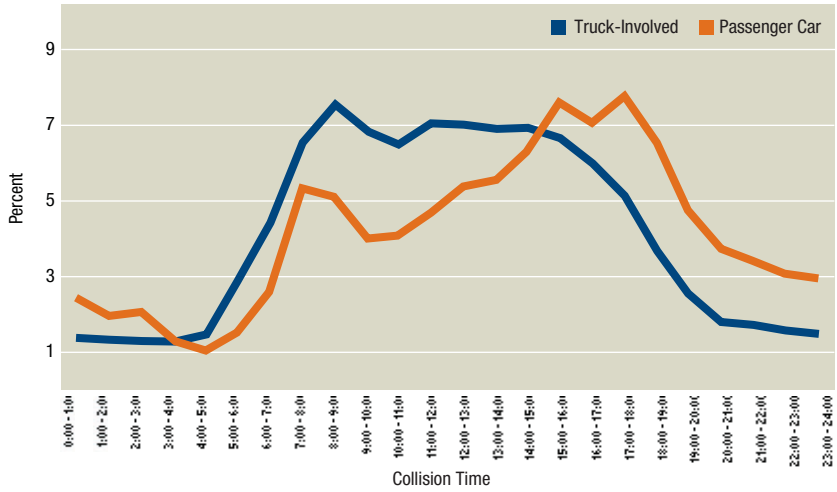
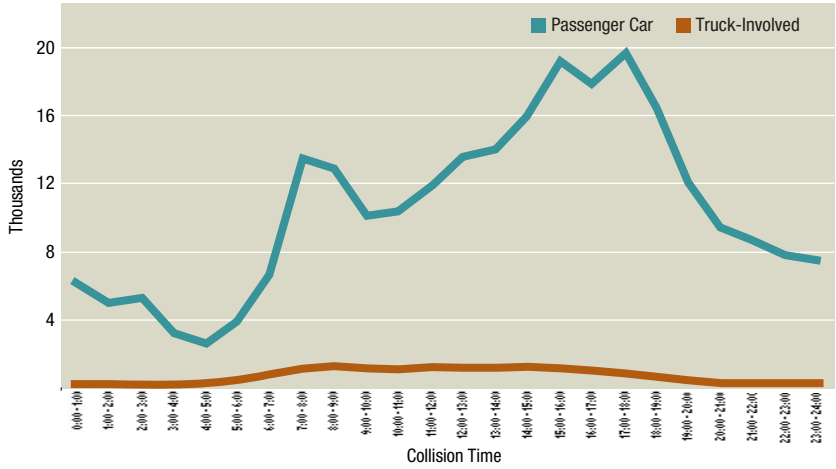


FIGURE B2 TRUCK-INVOLVED AND PASSENGER-CAR-ONLY COLLISIONS BY HOUR



Appendix C: Freight Rail Electrification Report of Findings

Memorandum
From: Cambridge Systematics
Date: August 24, 2007

As part of an effort to target clean technology investments and reduce emissions from freight rail movements in the Los Angeles Basin, the Southern California Association of Governments (SCAG) performed a preliminary evaluation of alternative scenarios for freight rail electrification and locomotive upgrades. The findings were included in the Freight Rail Emission Reduction Discussion Paper, an internal draft document dated July 17, 2007. Three of the scenarios involve rail electrification alone; the remaining two scenarios involve upgrades to lower emission diesel locomotives to reduce emissions.

Following the issuance of the discussion paper, SCAG commissioned System Metrics Group, Inc. and its subcontractor Cambridge Systematics, Inc. to conduct a study to:

- Obtain updated electrification infrastructure and electric locomotive costs vis-à-vis the Southern California Accelerated Rail Electrification Study (1992) prepared for the Southern California Regional Rail Authority (SCRRA), from which costs were derived for the 2007 discussion paper;
- Estimate electrification implementation time, including what can be accomplished by 2014; and
- Estimate electric power consumption, in order to determine emissions from incremental power generation (a separate study).

These objectives are intended to support SCAG's overall goal of assessing the feasibility of implementing freight rail electrification to contribute to significant regional emission reductions by 2014.

Three electrification scenarios for the Los Angeles Basin described in the SCRRA 1992 study are the focus of the current feasibility assessment. The scenarios are as follows:

1. Scenario 1 – Primary East/West Freight Line Electrification from the Ports of Los Angeles and Long Beach to Colton and San Bernardino;
2. Scenario 2 – Electrification Extension to Barstow and Indio; and
3. Scenario 3 – Electrification Extension to Chatsworth and San Fernando.

The current study was conducted over a three-week period and represents a high level planning assessment. The findings do not reflect engineering analysis or detailed field reviews.

The purpose of this memorandum is to present the results of the study. The results include estimated electrification costs (per mile, per electric locomotive, and for each scenario), appropriate electrification milestones and their durations, and electric power consumption associated with electrified rail.

ELECTRIFICATION COSTS

The initial object of investigation was the cost of electrifying existing rail line per mile. The unit electrification infrastructure cost and the cost of an electric locomotive (described later) allow us to estimate the scenario costs. At the outset, our attention was directed to two electrification projects: Northeast Corridor and Caltrain. Electrification of the Northeast Corridor is complete, while Caltrain electrification has not yet begun.

NORTHEAST CORRIDOR

The Northeast Corridor Improvement Project (NECIP) is the most recently completed major rail electrification project in the U.S. It included the electrification of the Amtrak mainline between New Haven, Connecticut and Boston, a distance of 157 miles. The project extended the electrified railroad that already existed between Washington, DC and New Haven, where previously electric locomotives were switched for diesel-powered locomotives for the trip

to Boston. Electrification began in July 1996 and was completed in July 2000 (the date commonly given for completion, but see the next paragraph), about three years later than scheduled. The NEC provides primarily passenger services, with freight service provided through trackage rights.

The cost of electrifying the New Haven – Boston line is variously reported, ranging from $680 million in 2000 to $727 million in 2003, exclusive of electric locomotives acquired for the electrified operations. In 2000 most of the electrification work had been completed, but several work elements remained. Hence, between 2000 and 2003 costs to electrify the line were still accruing. Overall, the estimated cost of electrification increased from $300 million in 1992 to $727 million in 2003.

Electrification costs for the New Haven – Boston line included only the installation of an electrical system between the two points, covering construction work, such as the overhead catenary system and electrical substations and facilities, related to electrifying the line. The catenary system delivers 25kV AC electrical power to the locomotive for traction (movement).

Generally, what constitutes electrification costs will vary depending on how costs are tracked and reported. Variables include trackage, signal systems, grade separations, and construction of terminals, yards, bridges, and tunnels, in addition to the electrical system itself. As stated, for the NECIP, only the electrical system was included in the costs of electrification.

The New Haven – Boston electrification project was fraught with difficulties that caused both delays and cost overruns, including changed electrification contractors in 1995 when the original contractor went out of business, unanticipated and difficult working conditions in the Boston area due to the Central Artery Project ("Big Dig"), and various contractor problems. Amtrak reportedly documented numerous instances in which the contractor did not have the necessary equipment, personnel, and/or supplies in place to conduct work in a timely fashion, causing relocation of electrification work and unanticipated need for safety protection measures.

CALTRAIN

Caltrain plans to electrify its commuter rail line between San Francisco and San Jose (Tamien station), a distance of 52 miles, at a cost of $471 million. Electric rolling stock will be acquired at an additional cost. Two options are being considered: electric locomotives combined with new or overhauled, non-powered passenger cars, or electric multiple units (commonly called EMUs), self-propelled passenger power cars. Electrification is scheduled for completion in 2012.

Electrification components of the San Francisco – San Jose line include an electrical system that will provide 25kV AC electrical power through an overhead catenary system and infrastructure modifications for compatibility with the electrical system. (Recall that for the Northeast Corridor such infrastructure modifications were not counted in the costs of electrification.)

- **Electrical system**. This includes electrical facilities (electric power supply substations and switching stations), overhead catenary system to distribute power to the trains, and supervisory control of the electrical facilities and wayside switches.
- **Infrastructure modifications**. Some infrastructure modifications are necessary to facilitate the construction of and compatibility with the electrification system. These include modifications to signals, communications, track, and grade crossings. For example, tracks may need to be shifted or lowered to allow foundations for poles supporting the overhead catenary system to be installed or for the overhead wires to be run under bridges; grade crossing warning devices may need to be upgraded; and signal changes may be required to the wayside signals and track circuit.

The line between San Francisco and San Jose is primarily two tracks, similar to the Northeast Corridor, and like the latter, will deliver 25kV AC electrical power through overhead wires. In the U.S., 12.5kV and 25kV are commonly used, with 25kV considered to be the preferred system for high speed and long distance operations. The 25kV AC configuration is considered to be the "mod-

ern" way of electrifying a railroad line, and is used in the United Kingdom, France, Taiwan, and other countries.

Caltrain is implementing a number of capital improvement projects deemed necessary to facilitate the transition to electrified rail operations and to enable increased service levels. The projects and estimated costs (in 2006 dollars) are shown in the table below.

Capital Improvement	Electric Locomotives Option
State of Good Repair Projects (a)	$425 M
Rolling Stock Replacement	$296 M
Platform Modifications - Level Boarding	$190 M
Enhancement Projects (b)	$854 M
Electrification	$471 M
Positive Train Control (c)	$30 M
Fleet Expansion and Infrastructure	$598 M
Total of Capital Improvement Costs	**$2,864 M**

M - Millions

Source: Peninsula Corridor Joint Powers Board, Project 2025, November 30, 2006, page 30.
(a) Replacement and rehabilitation of equipment and infrastructure that have reached the end of their "useful" life or require rehabilitation.
(b) Construction of new terminals, yards and maintenance or storage facilities, and grade separations.
(c) Signal system that among other functions determines and displays the location of all trains within a specific area. The new level of performance will maximize the capacity potential of electrification.

As stated earlier, Caltrain electrification costs per se include the installation of the electrical system and implementation of necessary associated infrastructure modifications. Other improvements (as shown in the table), however related to electrification, are included under different cost categories.

INFRASTRUCTURE

Of primary interest was the calculation of the unit cost of the electrification infrastructure (as opposed to rolling stock), in the form of cost per route mile. The table below lists the derived costs (in millions of dollars) for the electrified New Haven – Boston (Northeast Corridor) line and the San Francisco – San Jose (Caltrain) line that is yet to be electrified.

Rail Line	Cost/Route Mile (Year)	Cost/Route Mile in 2007 Base on Consumer Price Index	Cost/Route Mile in 2007 Based on 6% Increase per Year
New Haven - Boston, NEC	$4.63 M (2003)	$5.24 M	$5.85 M
San Francisco - San Jose, Caltrain	$9.06 M (2007)	$9.06 M	$9.06 M

M - Millions

Unit costs in 2007 dollars are considerably different between the Northeast Corridor and Caltrain. Possible reasons for the difference include the following:

- Caltrain costs include infrastructure modifications directly related to electrification as well as the electrical system. NEC costs pertain to the electrical system only, and it was not possible within the scope of this study to ascertain the additional amount that could be attributed to comparable infrastructure modifications.
- Caltrain electrification will require considerable night and weekend work because of the large number of trains that run daily (almost 100), whereas fewer trains (26 trains at the outset) were running when Amtrak electrified the New Haven - Boston line.
- Raw materials (copper, steel, and concrete in particular) costs have experienced "steep" increases in recent years.
- Given the much longer NEC line, economies of scale could have lowered total NEC costs.
- Caltrain costs are estimated expenditures; NEC costs are already expended.

A review of the literature revealed no other concrete electrification projects in the U.S. from which to derive comparative projected costs.

It is recommended that the Caltrain cost of $9.06 million per mile be used to produce estimated costs for the Los Angeles Basin railroad electrification

scenarios (identified on pages 1-2). Many similar infrastructure modifications would be required for Southern California as for Caltrain

In fact, electrification costs in the SCRRA 1992 study included at least some, if not all, of the infrastructure modifications included in Caltrain electrification costs. The lower NEC unit cost would certainly be higher (although to what degree is unknown) if some infrastructure modifications were included as in the Caltrain cost. Moreover, using the Caltrain cost ncorporates regional cost assumptions (e.g., labor costs) that are applicable to the Southern California scenarios, in comparison to the NEC experience that began a decade ago.

The larger Caltrain unit cost is offered as the better high level planning tool.

ELECTRIC LOCOMOTIVE

Capital costs of electrification also include electric locomotives which propel trains of nonpowered trailer cars. The electric locomotive is powered by electricity from an external source such as an overhead line. If Caltrain selects the electric locomotive option (as opposed to EMUs, as described earlier), the Bombardier ALP 46 electric locomotive will be deployed. The ALP 46 is the newer of the two major electric locomotives in use in the U.S. It is used by New Jersey Transit on the Northeast Corridor.

Cost of the ALP 46 electric locomotive is approximately $5.5 million. In comparison, a diesel freight locomotive is reported by the Electro-Motive Division (EMD) of General Motors to cost $2.2 million (SD-70M-2 DC locomotive).

LOS ANGELES BASIN SCENARIOS

Electrification and electric locomotive costs were produced for the three scenarios using the unit infrastructure cost of $9.06 million per mile and locomotive cost of $5.5 million. The results are shown in the table below.

Scenario	Mileage	Cost of Electrification	Number of Electric Locomotives	Cost of Electric Locomotives	Total cost
1 - Primary East/West Freight Line - Ports to Colton & San Bernardino	250 Miles	$2.27 B	360	$1.98 B	4.25 B
2 - Extension to Barstow & Indio	170 Miles	$1.54 B	360	$1.98 Billion	$3.52 B
3 - Extension to Chatsworth and San Fernando	40 Miles	$0.36 B	55	$0.36 B	$0.66 B
Total, All Scenarios	**460 Miles**	**$4.17 B**	**775**	**$4.26 B**	**$8.43 B**

B - Billions

The total cost of the three scenarios based on the new unit and locomotive costs is 31 percent greater than the total cost proposed in SCAG's 2007 discussion paper ($6.43 billion), due in large part to the much higher number used for the electric locomotive ($5.5 million compared to $2.0 million).

In contrast, the figure used by SCAG for the cost of electrification was a derived cost of $10.6 million per mile (based on the unit cost estimated in the SCRRA 1992 study adjusted for six percent increase per year to 2007), which being higher than the $9.06 million per mile used to produce the requirements shown in the table above, served to temper the increased locomotive costs.

ELECTRIFICATION MILESTONES AND DURATIONS

Implementation time for the scenarios also was a study objective, centered on what can be accomplished by 2014. The three scenarios are incremental. Therefore, implementation of Scenario 1 was the focus.

Caltrain sources provided the best information on applicable milestones and approximate durations that was accessible during this study. Information from the SCRRA 1992 study was used to validate milestones and their durations that were identified from information provided by the Caltrain electrification project.

Electrification of the New Haven – Boston line (157 miles) required four years assuming 2000 is used as the completion date, yielding .31 month per mile, an arguably quick pace. Characteristics of the NEC electrification do not make it a realistic benchmark for extrapolating construction time. First, during construction relatively few trains were running and this minimized construction delays brought about by train operations. Second, the electrification timeline did not include infrastructure modifications, which were performed separately from the electrification per se. Caltrain electrification, on the other hand, will take place amidst almost 100 trains a day, and infrastructure modifications are a part of the electrification timeline. These characteristics contribute to a more realistic model for estimating construction time in the Los Angeles Basin.

As a result, a construction rate derived from the Caltrain projections will be used to estimate the construction time for Scenario 1. The rate equates to .69 month per mile based on the projected electrification of the 52-mile San Francisco – San Jose line in a three-year timeframe.

Scenario 1 comprises two railroads with three parallel lines. In order to accelerate the project schedule, work could be conducted concurrently on all three lines, instead of being conducted

on each line sequentially, and time requirements would be drastically reduced. This is the premise behind the construction timeframe depicted in the table below. The table shows milestones, rough estimates of durations of these milestones, and applicable years for the implementation of Scenario 1.

Milestone	Scenario 1 Duration	Years
Preliminary Engineering and Institutional Processes (a)	3.0	2007-2009
Environmental Approvals (b)	1.5	2010-2011
Final Design	1.0	2011-2012
Procurement and Contract	0.5	2012
Construction (c)	5.2	2013-2017
Electrification Interface Testing; Locomotives Commissioning and Test	1.0	2018
Total	**12.2**	2007-2018

(a) Includes project definition, conceptual design, railroad and utility agreements, access rights, regulatory approvals, and full funding plan. Duration may potentially be reduced if consensus building can be accelerated.
(b) Includes a Request for Proposals (RFP) for environmental studies and environmental documentation. Duration may potentially be reduced if consensus building can be accelerated.
(c) Based on a construction rate of .69 month per mile as derived from Caltrain, San Francisco - San Jose projections (36 months to electrify 52 miles), applied to the 90-mile Burlinton Northern Santa Fe (BNSF) line in Scenario 1. Electrification of the two shorter Union Pacific (UP) lines will occur at the same time as the BNSF line. Construction includes overhead catenary system poles and wires, traction power substations, switching stations and paralleling stations; pantograph inspection platforms; associated infrastructure modifications; etc.
(d) Procurement and manufacture of locomotives occurs during construction.

Construction time of slightly over five years as shown in the table is an optimistic estimate. It requires the deployment of three full construction crews, one devoted to each of the parallel lines. The five-year estimate is based on the time needed to complete the longest line (90 miles).

It is more reasonable to assume that additional time will be needed. The railroads run freight trains 24 hours a day, seven days a week. Work has to be halted when the trains pass. In the Caltrain case, however, night work is productive because the passenger trains do not run 24 hours (making this an assumption of the Caltrain construction rate). Clearly, density and frequency

of train operations will help determine how much work can be accomplished during a 24-hour period.

How much time is associated with productivity, and any other, issues cannot be determined with any certainty. Seven years construction time may be a good, realistic estimate. This would push the completion of construction to about the end of 2019, and completion of testing to about the end of 2020. However, as noted previously, work must proceed on all three lines at the same time, requiring three crews and very possibly additional costs. Diversion of trains also may be necessary to allow work to proceed at an acceptable pace given that trains run 24x7.

ELECTRIC POWER CONSUMPTION

One of the benefits of an electrified system is the reduction of diesel emissions. The final study objective was to estimate electric power consumption per mile to support estimates of total annual power consumption and the associated emissions from the incremental power generation. The objective was limited to identifying unit consumption. Subsequent analysis will be conducted by SCAG or a third party.

According to the American Public Transportation Association (2007), "heavy rail" power consumption equates to 5.83 kilowatt hours per vehicle mile. Heavy rail, as opposed to light rail, is an electric railway that can support a heavy volume of traffic, is capable of high speed and/or rapid acceleration, and is primarily grade-separated.

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Appendix D: San Pedro Bay Port Goods Movement Strategies

The SPB ports are planning and developing specific strategies to increase capacity and enhance operational efficiency. At the same time, these strategies attempt to minimize the impacts of goods movement activities on the environment and public health.

ON-DOCK RAIL CAPACITY ENHANCEMENTS

Table D1 documents the growth in on-dock rail intermodal throughput compared to near-dock and off-dock intermodal throughput.

TABLE D1 EXISTING TRENDS IN SAN PEDRO BAY PORT ON-DOCK RAIL THROUGHPUT, AND COMPARISONS WITH NEAR-DOCK AND OFF-DOCK INTERMODAL THROUGHPUT TRENDS, 2003 TO 2006

TEU	2003	2004	2005	2006
On-Dock	1,885,642	2,369,853	2,934,850	3,801,892
Percent of Port Throughput	15.9%	18.1%	20.7%	24.1%
Near Dock	962,197	936,428	1,081,350	1,271,327
Percent of Port Throughput	8.1%	7.1%	7.6%	8.1%
Off-Dock	1,805,791	1,846,199	1,689,890	1,671,489
Percent of Port Throughput	15.3%	14.1%	11.9%	10.6%
Total Direct Intermodal	4,653,630	5,152,469	5,706,090	6,744,708
Percent of Port Throughput	39.3%	39.3%	40.2%	42.8%
Total Port Throughput	11,837,064	13,101,292	14,194,442	15,759,219

Source: San Pedro Bay Port Rail Study Update, December 2006

Table D2 lists projected on-dock intermodal throughput through 2030 based on planned on-dock rail investments at the Ports.

TABLE D2 PROJECTED SAN PEDRO BAY PORT ON-DOCK RAIL THROUGHPUT

(millions of TEU)	2010	2015	2020	2030
POLB	2.27	4.15	5.49	6.10
Percent of Port Throughput	23%	32%	32%	30%
POLA	2.79	4.33	6.25	6.84
Percent of Port Throughput	27%	31%	33%	31%
Total SPB	5.06	8.47	11.74	12.94
Percent of Port Throughput	25%	31%	32%	30%

Source: San Pedro Bay Port Rail Study Update, December 2006

An on-dock rail capacity enhancement strategy at the Ports will be crucial in addressing critical landside capacity constraints and environmental issues in the region. Key constraints and issues include the following: 1) lack of capacity at off-dock intermodal yards; 2) congestion and safety issues on port access routes; and 3) air quality impacts from port truck traffic.

A report by the California Marine and Intermodal Transportation System Advisory Council (CALMITSAC) observes that recent trends in increased on-dock rail activity at the Ports can be partly attributed to the imposition of quotas by BNSF at the Hobart off-dock intermodal yard. The Hobart yard has eliminated free time, with the imposition of a $150 per day demurrage fee for containers. It has been estimated that transload and domestic cargo will exceed off-dock rail yard capacity by the 2010-2015 timeframe.

REDUCTION IN TRUCK TRIPS AND TRUCK VMT

The Port Truck Trip Reduction Strategies study analyzed the impact of increased on-dock rail on truck trips on four major access roadways around the Ports (I-710, I-110, SR-103, and Alameda Street). In one approach, baseline scenarios for 2010 and 2030, which already include on-dock rail investment, were compared against revised baseline scenarios for these years, which assumed on-dock rail capacity to be capped at 2005 levels. The study demonstrated reductions in truck traffic on these roadways and total truck VMT attributable to on-dock rail investments. Tables D3 and D4 highlight reductions

in truck traffic for 2010 and 2030 in baseline scenarios compared to alternative baselines (assuming 2005 on-dock capacity). Significant truck traffic and peak hour congestion reductions are shown in Table D4.

TABLE D3 IMPACTS OF ON-DOCK RAIL ON TRUCK TRAFFIC AND VMT (2010)

Weekday Port Container Truck Volumes by Period of Day and By Roadway and Percentage Change from 2010 Baseline				
Time Period	I-710	SR 47/ SR 103	HF/ Alameda	I-110
AM Peak (6:00 am - 9:00 am)	3,958	980	692	1,470
	-4.8%	-5.6%	-5.2%	-6.1%
Midday (9:00 am - 3:00 pm)	15,134	2,860	4,077	6,248
	-4.5%	-4.5%	-5.1%	-5.1%
PM Peak (3:00 pm - 7:00 pm)	5,339	1,113	1,436	2,254
	-4.7%	-4.6%	-5.2%	-7.0%
Subtotal (Daytime: 6:00 am - 7:00 pm)	24,611	4,953	6,205	9,972
	-4.6%	-4.8%	-5.1%	-5.7%
Night (7:00 pm - 6:00 am)	2,398	600	741	1,511
	-5.3%	-4.8%	-6.4%	-5.7%
Total	27,009	5,553	6,946	11,483
	-4.7%	-4.8%	-5.2%	-5.7%

Total Weekday Container Truck Trips by Port and by Truck Type					
	Bobtails	Chassis	Loads	Empties	Total
POLB	1,161	3,294	9,598	7,400	31,453
	-3.6%	-8.3%	-4.6%	0.0%	-3.7%
POLA	18,576	3,617	14,218	11	47,184
	-6.9%	-19.1%	-8.4%	0.0%	-7.0%
Total	29,737	6,911	23,816	18,174	78,637
	-5.7%	-14.3%	-6.9%	0.0%	-5.7%
Total VMT	1,205,617				
	-5.7%				

Source: Port Truck Trip Reduction Strategies, Final Report, December 2005

TABLE D4 IMPACTS OF ON-DOCK RAIL ON TRUCK TRAFFIC AND VMT (2030)

Weekday Port Container Truck Volumes by Period of Day and By Roadway and Percentage Change from 2030 Baseline Capped at 2005 On-Dock Capacity Levels				
Time Period	I-710	SR47/ SR103	HF/ Alameda	I-110
AM Peak (6:00 am - 9:00 am)	9,391	2,061	1,468	2,177
	-19.0%	-18.0%	-18.0%	-22.0%
Midday (9:00 am - 3:00 pm)	37,367	6,201	8,703	9,557
	-19.0%	-18.0%	-19.0%	-20.0%
PM Peak (3:00 pm - 7:00 pm)	13,258	2,441	3,066	3,375
	-19.0%	-19.0%	-20.0%	-23.0%
Subtotal (Daytime: 6:00 am - 7:00 pm)	60,015	10,703	13,237	15,109
	-19.0%	-18.0%	-19.0%	-22.0%
Night (7:00 pm - 6:00 am)	5,223	1,147	1,393	2,270
	-17.0%	-16.0%	-18.0%	-22.0%
Total	65,238	11,849	14,630	17,379
	-19.0%	-18.0%	-19.0%	-22.0%

Total Weekday Container Truck Trips by Port and by Truck Type					
	Bobtails	Chassis	Loads	Empties	Total
POLB	32,147	8,570	27,333	22,546	90,596
	-20.0%	-41.0%	-23.0%	0.0%	-20.0%
POLA	29,819	6,047	22,445	18,845	77,156
	-19.0%	-43.0%	-23.0%	0.0%	-19.0%
Total	61,966	14,617	49,778	41,391	167,752
	-19.0%	-42.0%	-23.0%	0.0%	-19.0%
Total VMT	2,571,855				
	-19.0%				

Source: Port Truck Trip Reduction Strategies, Final Report, December 2005

TABLE D5 EMISSION REDUCTION FROM INCREASED ON-DOCK RAIL

Scenarios	Truck VMT Per Day	Change in Truck VMT Per Day	Net Emissions (Tons Per Day)				Percent Reductions from Base			
			ROG	CO	NO_x	PM_{10}	ROG	CO	NO_x	PM_{10}
2005 Scenarios										
Increased On-Dock Rail (1 eastbound train per week per terminal)	999,691	-17,807	-0.010	-0.048	-0.2178	-0.0035	-1.33%	-1.61%	-1.13%	-1.03%
2010 Scenarios										
On-Dock Rail Base 2010 Comparison with Revised 2010 Baseline		-72,302	-0.037	-0.120	-0.916	-0.010	-4.75%	-4.59%	-4.95%	-3.81%

Source: Port Truck Trip Reduction Strategies, Final Report, December 2005

One on-dock intermodal trains can eliminate approximately 750 truck trips from the local highway networks around the Ports. Given forecasted growth in cargo volumes, and full on-dock capacity available by 2030, on-dock rail is estimated to remove nearly 29,000 daily truck trips.

EMISSION REDUCTION

The Port Truck Trip Reduction Strategies study performed a detailed analysis of emission reduction benefits from increased on-dock rail for the region. Two on-dock rail scenarios were tested in the study to analyze their performance in emission reduction by type of pollutant, which included:

- A 2005 increased on-dock rail scenario involving 1 eastbound train per week per terminal, and
- The 2010 baseline scenario compared to the 2010 alternative baseline that assumed on-dock rail capped at the 2005 level in 2010.

Table D5 presents emission reductions from the above two scenarios in percent reduction of emissions compared to baseline by type of pollutant. Statistics in Table 5 show that increased on-dock rail has notable emission reduction benefits for each of the four pollutant types.

PRODUCTIVITY BENEFITS

The movement of containerized cargo by on-dock rail has higher efficiency and productivity than near-dock or off-dock intermodal yards. This is because:

- Movement of cargo by on-dock rail involves one-time loading or unloading, whereas near-dock or off-dock rail require trucks to transport cargo between docks and railcars;
- There can be delays in truck loading/unloading at marine terminals due to delays at gates, which can affect productivity;
- Congestion on the highway system can impact reliability and productivity for near-dock and off-dock yards; and
- On-dock yards only involve direct intermodal cargo, whereas transloaded cargo moving through off-dock yards requires transload-

ing/distribution facilities, which increases container lead times and reduces productivity.

PIERPASS OFF-PEAK PROGRAM

The PierPass program was launched in July 2005, to alleviate truck congestion and improve air quality in the region. The OffPeak program provides an incentive for cargo owners and their carriers to move cargo during nighttime periods and weekends to reduce truck traffic during peak day time periods on major highways, and to decrease negative air quality impacts from high peak period truck traffic volumes. The program is based on a market incentive approach where all containers entering or exiting marine terminals at the Ports during the peak day time hours (Monday through Friday, 3:00 am to 6:00 pm) are charged a Traffic Mitigation Fee (TMF). Trucks entering or exiting during the off-peak shift (Monday through Thursday, 3:00 pm to 6:00 am) or anytime between 6:00 pm Friday to 3:00 am Monday, avoid the TMF. This provides an incentive for truck drayage companies to operate during these off-peak time periods. Landside and terminal capacity constraints affecting the implementation of the OffPeak program include peak-period congestion on port access routes, and port terminal gate capacity constraints.

The PierPass program has been successful in shifting truck trips from peak to off-peak periods, reducing peak period congestion, and improving utilization of port terminal gate capacity. On a typical day, more than 10,000 trucks use off-peak shifts, alleviating congestion during peak-day time periods. This translates to approximately 30% - 35% of container throughput from the Ports shifting to the off-peak periods, exceeding the targets of the program. According to the Alameda Corridor Transportation Authority (ACTA), peak hour truck traffic on I-710 was reduced by an estimated 24% due to the Off-Peak program.

The Port Truck Trip Reduction Strategies study looked at the reduction in peak period truck trips due to extended gate hours. The following scenarios were analyzed in the study:

- 68% day and 32% night container moves, with no shift to weekends, in 2010
- 68% day and 32% night container moves, with 20% of weekly gate moves allotted to weekends, in 2010

Tables D6 and D7 present the reduction in truck trips from extended gate hour strategies at the Ports. Statistics show that significant truck trip reductions can be achieved on all the major access routes to the Ports in the A.M. and mid-day time periods in 2010 through extended gate hour strategies, shifting truck trips to the nighttime period and weekends.

TABLE D6 EXTENDED GATE HOURS (68% DAY, 32% NIGHT) WITH NO SHIFT TO WEEKEND (2010)

Weekday Port Container Truck Volumes by Period of Day and By Roadway and Percentage Change from 2010 Baseline				
Time Period	**I-710**	**SR 47/ SR 103**	**HF/ Alameda**	**I-110**
AM Peak (6:00 am - 9:00 am)	2,211	516	382	776
	-44.1%	-47.4%	-44.9%	-47.2%
Midday (9:00 am - 3:00 pm)	12,209	2,385	3,330	5,380
	-20.3%	-16.6%	-18.3%	-13.9%
PM Peak (3:00 pm - 7:00 pm)	5,674	1,208	1,560	2,426
	6.3%	8.5%	8.6%	7.6%
Subtotal (Daytime:6:00 am - 7:00 pm)	20,093	4,109	5,272	8,582
	-18.4%	-17.1%	-15.0%	-13.9%
Night (7:00 pm - 6:00 am)	6,688	1,302	1,827	2,935
	178.9%	116.9%	146.4%	94.2%
Total	26,781	5,410	7,099	11,517
	-0.8%	-2.6%	2.2%	0.3%

Total Weekday Container Truck Trips by Port and by Truck Type					
	Bobtails	Chassis	Loads	Empties	Total
POLB	11,161	3,294	9,598	7,400	31,453
	0.0%	0.0%	0.0%	0.0%	0.0%
POLA	18,576	3,617	14,218	10,774	47,184
	0.0%	0.0%	0.0%	0.0%	0.0%
Total	29,736	6,911	23,816	18,174	78,638
	0.0%	0.0%	0.0%	0.0%	0.0%
Total VMT	1,205,617				
Percent Change	0.0%				

Source: Port Truck Trip Reduction Strategies, Final Report, December 2005

TABLE D7 EXTENDED GATE HOURS (68% DAY, 32% NIGHT) WITH 20% WEEKDAY SHIFT TO WEEKEND (2010)

Weekday Port Container Truck Volumes by Period of Day and By Roadway and Percentage Change from 2010 Baseline				
Time Period	**I-710**	**SR 47/SR 103**	**HF/Alameda**	**I-110**
AM Peak (6:00 am - 9:00 am)	1,956	457	331	714
	-50.6%	-53.4%	-52.2%	-51.4%
Midday (9:00 am - 3:00 pm)	10,810	2,114	2,914	4,948
	-29.4%	-26.1%	-28.5%	-20.8%
PM Peak (3:00 pm - 7:00 pm)	5,007	1,069	1,366	2,276
	-6.2%	-4.0%	-4.9%	1.0%
Subtotal (Daytime: 6:00 am - 7:00 pm)	17,774	3,640	4,612	7,938
	-27.8%	-26.5%	-25.7%	-20.4%
Night (7:00 pm - 6:00 am)	5,914	1,153	1,597	2,710
	146.6%	92.1%	115.4%	79.3%
Total	23,688	4,793	6,208	10,648
	-12.3%	-13.7%	-10.6%	-7.3%

Total Weekday Container Truck Trips by Port and by Truck Type					
	Bobtails	Chassis	Loads	Empties	Total
POLB	9,734	2,886	8,372	6,440	27,431
	-12.8%	-12.4%	-12.8%	-13.0%	-12.8%
POLA	16,642	3,256	12,728	9,603	42,229
	-10.4%	-10.0%	-10.5%	-10.9%	-10.5%
Total	26,375	6,141	21,100	16,043	69,660
	-11.3%	-11.1%	-11.4%	-11.7%	-11.4%
Total VMT	1,067,979				
Percent Change	-11.4%				

Source: Port Truck Trip Reduction Strategies, Final Report, December 2005

OTHER BENEFITS

Other potential benefits of the OffPeak program include:

- Improved monitoring of trucks entering and exiting marine terminals as part of the program, may allow for improved regulation of trucks, especially in assessing equipment standards and ensuring that trucks meet air quality requirements;
- Increased truck turn times in harbor trucking due to improved efficiency; and
- Improved ability for harbor trucking companies to assess premiums from shippers for off-peak operations (due to the savings in Traffic Mitigation Fee), which are also ultimately passed on to the drivers providing incentives to work during off-peak periods.

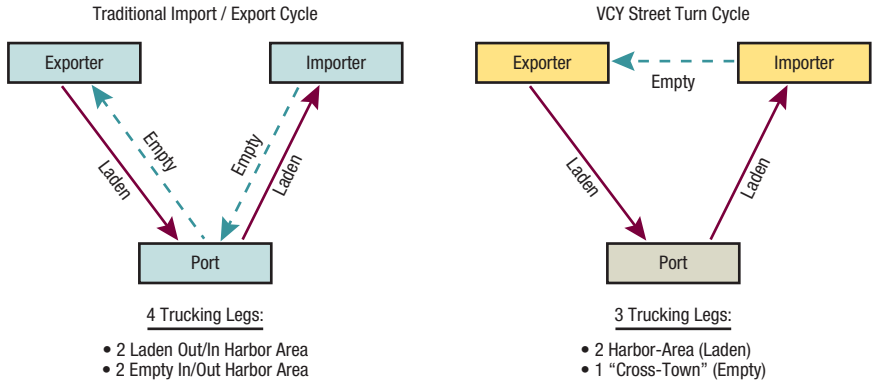
VIRTUAL CONTAINER YARDS

A Virtual Container Yard (VCY) is an innovative empty container management strategy to reduce truck movements of empty containers in and out of port terminal gates. In many cases, after an import container is unloaded by the importer (or a transloader), it is returned to the Ports or an off-site depot for storage until an exporter calls for a container. In the SCAG region, virtually all loaded import containers are trucked back to the Ports empty (after unloading at the importer's location or a transload facility) with only about 2% matched with shippers needing an export container en route to the Ports. In 2000, more than one million empty containers were trucked back to the Ports after unloading, while approximately 500,000 empty containers were trucked to access facilities from the Ports for export loading.

The VCY concept is based on a computerized matching system that tracks the location of empty import containers and matches them with export container requirements prior to returning to the Ports to facilitate "street turn" container interchanges between the importer/transloader and exporter locations. The VCY concept could increase empty container re-use from the current 2% to almost 10%, which would result in reductions of empty container truck trips around the Ports.

Figure D1 depicts the VCY concept in comparison with the traditional empty container logistics practice.

FIGURE D1 VCY CONCEPT AND TRADITIONAL PORT EMPTY CONTAINER LOGISTICS



Source: Alameda Corridor Transportation Authority

The Empty Ocean Container Logistics Study conducted by The Tioga Group estimated 2000 baseline and forecasted empty container flows for the San Pedro Bay port marine terminals through 2020. These estimates are provided in Table D8. The largest share of empty trips to and from the Ports are associated with local shippers and consignees. The number of empty truck trips from importer/transload facilities to the Ports (westbound flow) is projected to increase from more than 3.5 million TEUs in 2000 to over 14.4 million TEUs in 2020, which is an average annual growth rate of slightly over 7%.

TABLE D8 BASE YEAR AND FORECASTED EMPTY CONTAINER FLOWS

		2000		2010		2015		2020	
		TEU	Units	TEU	Units	TEU	Units	TEU	Units
Eastbound to Exporters		1,324,476	715,933	2,738,344	1,480,186	3,631,065	1,968,738	5,027,971	2,717,822
	Via Rail	22,169	11,983	80,413	43,467	116,400	62,919	170,494	92,159
	• On-Dock Intermodal	22,169	11,983	80,413	43,467	116,400	62,919	170,494	92,159
	Via Truck	1,302,306	703,949	2,657,931	1,436,719	3,514,665	1,899,819	4,857,476	2,625,663
	• Off-Dock Intermodal	51,728	27,961	187,631	101,422	271,600	146,811	397,820	215,038
	• Local for Export Loading	1,017,137	549,804	2,053,720	1,110,119	2,618,965	1,415,657	3,514,937	1,899,966
	• SSL Off-Hires to Depots	233,441	126,184	416,579	225,178	624,100	337,351	944,719	510,659
Westbound to the Ports		3,568,312	1,928,817	6,367,713	3,442,007	9,539,815	5,156,657	14,440,698	7,805,783
	Via Rail	278,128	150,339	501,602	271,136	731,291	395,293	1,084,536	586,236
	• On-Dock Intermodal	278,128	150,339	501,602	271,136	731,291	395,293	1,084,536	586,236
	Via Truck	3,290,183	1,778,478	5,866,112	3,170,871	8,808,524	4,761,364	13,356,161	7,219,547
	• Off-Dock Intermodal	564,600	305,189	920,401	497,514	1,491,797	806,377	2,366,438	1,279,156
	• Local form Import Loads	2,084,712	1,126,871	3,842,221	2,076,876	5,661,030	3,060,016	8,483,038	4,585,426
	• Local from WB Domestic Loads	64,897	35,079	105,793	57,186	171,471	92,687	272,004	147,029
	• Repo Off-Hires from Depots	333,487	180,263	595,113	321,683	891,572	481,931	1,349,598	729,512
	• Local Empties from Trans-loads	242,488	131,075	402,583	217,613	592,655	320,354	885,083	478,423
	• Bobtail Trip Change		0		0		0		0
Port Subtotal		4,892,787	2,644,750	9,106,058	4,922,193	13,170,880	7,119,395	19,468,669	10,523,605
	On-Dock Rail	300,297	162,323	582,015	314,603	847,691	458,211	1,255,031	678,395
	• Truck through Terminal Gates	4,592,490	2,482,427	8,524,043	4,607,591	12,323,189	6,661,183	18,213,638	9,845,210
Cross-Town Truck	Factor	149,184	90,640	268,159	144,951	399,506	215,949	602,663	325,764
Local Off-hires to Depots	3%	80,577	43,555	146,796	79,349	216,030	116,773	323,278	174,745
IM Off-Hires to Depots	3%	19,469	10,524	31,738	17,156	51,441	27,806	81,601	44,109
Reused empties for exports	2%	49,138	26,561	89,624	48,446	132,035	71,370	197,784	106,910
Grand Total		5,041,972	2,725,390	9,374,216	5,067,144	13,570,387	7,335,344	20,071,332	10,849,368

Source: EmptyOceanContainerLogisticsStudy,TheTiogaGroup

Key constraints and issues related to the movement of empty containers in Southern California include:

- Marine terminal yard capacity constraints due to higher terminal space usage by empty containers resulting from permitted longer dwell times;
- Delays at marine terminal gate due to empty container volumes moving through the Ports;
- Truck traffic volume and congestion due to empty container logistics.

The first virtual container yard program has operated at the SPB ports since July 2006. Tables D9 and D10 show potential savings in annual truck trips and VMT that could result from VCY strategies assuming 5% and 10% container reuse through 2020.

TABLE D9 TRUCK TRIP SAVINGS FROM VIRTUAL CONTAINER YARD STRATEGIES

Scenarios	2010	2015	2020
Base Case	3,186,995	4,475,673	6,485,392
VCY (5% Reuse) - Total Trips	3,029,304	4,243,363	6,137,400
VCY (5% Reuse) - Trips Saved	157,691	232,310	347,992
VCY (5% Reuse) - % Reduction	-4.9%	-5.2%	-5.4%
VCY (10% Reuse) - Total Trips	2,766,487	3,856,179	5,557,412
VCY (10% Reuse) - Trips Saved	420,508	619,494	927,980
VCY (10% Reuse) - % Reduction	-13.2%	-13.8%	-14.3%

Source: Empty Ocean Container Logistics Study, The Tioga Group

TABLE D10 EMPTY CONTAINER ANNUAL TRUCK VMT SAVINGS FROM VIRTUAL CONTAINER YARD STRATEGIES

Scenarios	2010	2015	2020
Base Case	64,040,254	92,374,112	136,322,325
VCY (5% Reuse) - Total VMT	61,852,813	89,151,532	131,494,795
VCY (5% Reuse) - VMT Reduction	2,187,441	3,222,580	4,827,530
VCY (5% Reuse) - % Reduction	-3.4%	-3.5%	-3.5%
VCY (10% Reuse) - Total VMT	58,207,077	83,780,567	123,448,912
VCY (10% Reuse) - VMT Reduction	5,833,177	8,593,545	12,873,413
VCY (10% Reuse) - % Reduction	-9.1%	-9.3%	-9.4%

Source: Empty Ocean Container Logistics Study, The Tioga Group

VCY strategies may have significant VMT reduction benefits as some of the trips associated with "street turns" will potentially have lower trip lengths.

Table D11 shows the emission reduction benefits by type of pollutant resulting from VCY strategies through 2020.

TABLE D11 EMISSION REDUCTIONS FROM VCY STRATEGIES

Scenario & Emissions Type	2010		2015		2020	
	Annual Tons	Peak Day Tons	Annual Tons	Peak Day Tons	Annual Tons	Peak Day Tons
Base Case						
Carbon Monoxide	925	3.98	1,335	5.75	1,970	8.48
Total Organic Gases	211	0.91	304	1.31	449	1.93
Reactive Organic Gases	206	0.89	297	1.28	438	1.89
Oxides of Nitrogen	783	3.37	1,129	4.85	1,666	7.17
Exhaust Particulates	73	0.31	105	0.45	155	0.67
Tier I - 5% Reuse						
Carbon Monoxide	894	3.95	1,288	5.55	1,900	8.18
Reduction	32	0.14	47	0.20	70	0.30
Total Organic Gases	204	0.88	294	1.26	433	1.86
Reduction	7	0.03	11	0.05	16	0.07
Reactive Organic Gases	199	0.86	287	1.23	423	1.82
Reduction	7	0.03	10	0.04	16	0.07
Oxides of Nitrogen	756	3.26	1,090	4.69	1,607	6.92
Reduction	27	0.12	39	0.17	59	0.25
Exhaust Particulates	70	0.30	101	0.44	149	0.64
Reduction	2	0.01	4	0.02	5	0.02
Tier II - 10% Reuse						
Carbon Monoxide	841	3.62	1,211	5.21	1,784	7.68
Reduction	84	0.36	124	0.53	186	0.80
Total Organic Gases	192	0.83	276	1.19	407	1.75
Reduction	19	0.08	28	0.12	42	0.18
Reactive Organic Gases	187	0.81	269	1.16	397	1.71
Reduction	19	0.08	28	0.12	41	0.18
Oxides of Nitrogen	712	3.06	1,024	4.41	1,617	6.96
Reduction	71	0.31	105	0.45	50	0.21
Exhaust Particulates	66	0.28	95	0.41	140	0.60
Reduction	7	0.03	10	0.04	15	0.06

Source: Empty Ocean Container Logistics Study, The Tioga Group

PORT CLEAN AIR ACTION PLAN PROJECTS

The San Pedro Bay Port Clean Air Action Plan (CAAP) is a five-year action plan developed by the Ports to establish goals and standards for air quality in the region and identify specific projects, programs, control measures, and technologies to meet those air quality goals/standards through multi-party collaboration for successful project funding and implementation. The five-year plan is a blueprint for the Ports to significantly reduce the health risks posed by air pollution from port-related ships, trains, trucks, terminal equipment, and harbor craft. The Plan will be reviewed and updated on an annual basis to assess and evaluate the effectiveness of current strategies to meet air quality goals, test new strategies and control measures, and jointly develop a revised and improved CAAP annually. The Ports have committed a total of $417.9 million, of which $166.0 million is allocated as truck engine replacement/retrofit incentives. The broad categories for the performance standards based on the type of sources are:

Engine standards for Heavy Duty Trucks to meet EPA 2007 on-road PM emission standards (0.01 g/bhp-hr)

Heavy duty truck engine replacement/retrofit

Vessel Speed Reduction (VSR) for OGVs

Low Sulfur Marine Gas Oil (MGO) fuel in auxiliary and main engines of OGVs

Shore power (cold ironing) at marine terminals

Diesel Particulate Matter (DPM) and NOx emission control devices for auxiliary and main engines of OGVs

Engine standards to meet EPA 2007 on-road PM emission standards (0.01 g/bhp-hr) for cargo handling equipments (CHE), or alternative use of Verified Diesel Emissions Controls (VDECs) on engines not meeting EPA's PM emission standards

EPA 2007 on-road or Tier 4 engine standards for yard tractors, top picks, forklifts, reach stackers, rubber tired gantries, and straddle carriers.

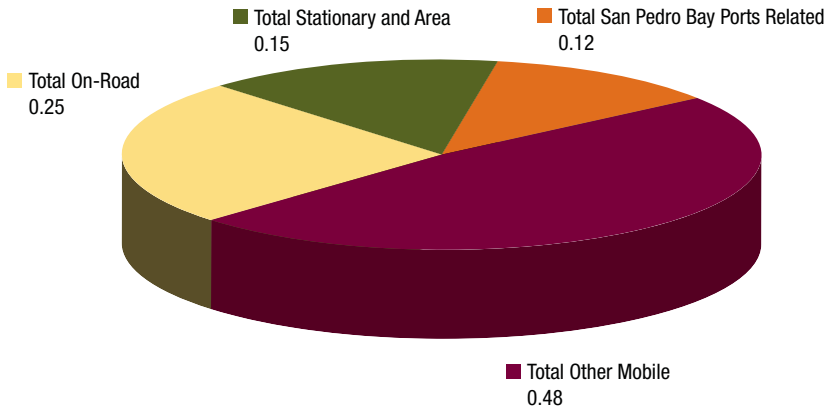
EPA engine standards and NOx/PM emission reduction technologies for harbor craft

EPA engine standards, idling-limiting devices, and alternative diesel fuels for switcher, helper and long-haul locomotives

ENVIRONMENTAL AND PUBLIC HEALTH ISSUES

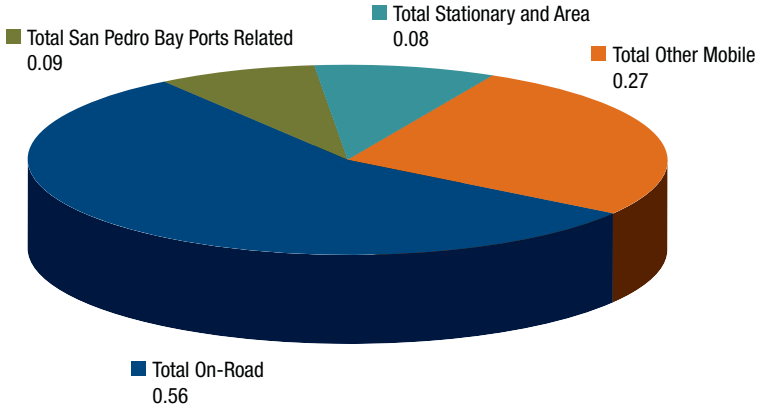
The Multiple Air Toxics Exposure Study (MATES) by the South Coast Air Quality Management District (SCAQMD) identified emissions from port-related sources as a major concern for public health in the region. A large share of pollutant emissions in the South Coast Air Basin come from the SPB ports as Figures D2, D3, and D4 illustrate.

FIGURE D2 DIESEL PARTICULATE MATTER (DPM) EMISSIONS BY SOURCE IN SCAB



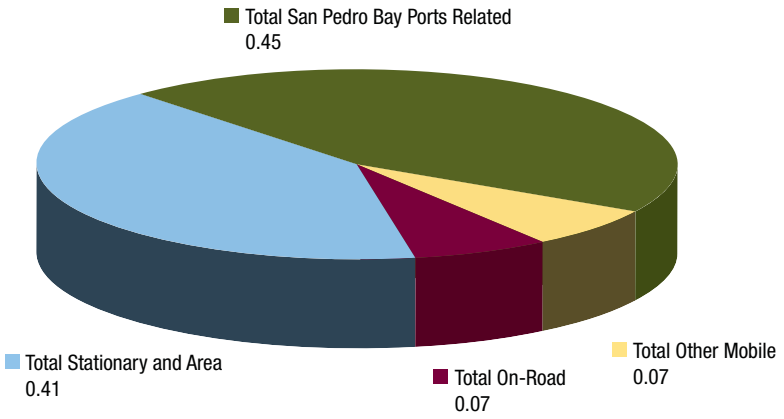
Source: San Pedro Bay Ports Clean Air Action Plan

FIGURE D3 NOX EMISSIONS BY SOURCE IN SCAB



Source: San Pedro Bay Ports Clean Air Action Plan

FIGURE D4 SOX EMISSIONS BY SOURCE IN SCAB



Source: San Pedro Bay Ports Clean Air Action Plan

EMISSION REDUCTIONS FROM CAAP MEASURES

The initial development and implementation of CAAP control measures and strategies for emissions reduction from port-related sources focuses on emissions from heavy-duty trucks, cargo handling equipment, and ocean going vessels. A quantitative assessment of the benefits of the CAAP control measures estimates emission reductions of 47% for Diesel Particulate Matter (DPM), 45% for NOX, and 52% for SOX by 2011.



SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2008
RTP REGIONAL TRANSPORTATION PLAN

Making the Connections

Aviation and Airport Ground Access Report

AVIATION

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The SCAG Region supports the nation's largest regional airport system in terms of number of airports and aircraft operations, operating in a very complex airspace environment. Exhibit 1 shows the SCAG regional air carrier airport system. The system has six established air carrier airports including Los Angeles International (LAX), Bob Hope (formerly Burbank), John Wayne, Long Beach, Ontario and Palm Springs. There are also four new and emerging air carrier airports in the Inland Empire and North Los Angeles County. These include San Bernardino International Airport (formerly Norton AFB), March Inland Port (joint use with March Air Reserve Base), Southern California Logistics Airport (formerly George AFB) and Palmdale Airport (joint use with Air Force Plant 42). The regional system also includes 45 general aviation airports and two commuter airports, for a total of 57 public use airports. Detailed profiles of the air carrier airports in the region can be found at the end of this chapter.

Southern California airports play a crucial role in international trade, particularly with Pacific Rim countries, and to the regional economy. The value of airborne commodity exports out of the Los Angeles Customs District are about equal to waterborne exports, and airborne export values would be significantly greater if service exports, including impacts from tourism, were added to total export values.

REGIONAL AVIATION CHALLENGES

There are significant challenges in meeting the future airport capacity needs of Southern California. Work on SCAG's 2004 Regional Transportation Plan (RTP) concluded that an Aviation Decentralization Strategy is needed to meet the forecast doubling of air passenger demand by 2030, from the current 90 million annual passengers (MAP) to 170 MAP. The four urban air carrier airports in Los Angeles and Orange counties—LAX, Bob Hope, Long Beach and John Wayne—are all highly constrained. Their collective acreage amounts to 5,540 acres, which is less than 17% of the 34,000 acres of Denver International, and less than the 7,700 acres of Chicago O'Hare. At 3,500 acres, LAX is a very small international airport despite being the third busiest airport in the country, and fifth busiest in the world in terms of passengers served. All of these urban airports have little room to expand because of severe encroachment by surrounding communities. In addition, two of these airports—Long Beach and John Wayne—have strict limits on allowable flights that are legally enforceable (one is a city ordinance and the other a court settlement agreement) since they predate the Federal Airport Noise and Capacity Act of 1990 (ANCA).

The challenge of regional aviation demand in Southern California is not limited to just the SCAG region. It is estimated that 15 to 20 percent of San Diego's air passengers and 2/3 of its air cargo is currently served by SCAG region airports because of inadequate airport capacity in San Diego. More than 40 commuter flights a day originate in San Diego County and land at LAX, because of inadequate long-haul and international service in San Diego. This places additional burdens on the limited runway capacity of LAX. San Diego International Airport is rapidly approaching its physical capacity constraint of 23 MAP, and a recent effort by the San Diego County Regional Airport Authority to find a new replacement airport was not successful. If San Diego does not solve its looming airport capacity problem, it will make the problem in the SCAG Region much worse.

AIRPORT OPPORTUNITIES

Fortunately, the region has available capacity to serve future demand at the new and emerging suburban airports in the Inland Empire (San Bernardino and Riverside counties) and North Los Angeles County. Ontario International Airport can accommodate up to 30 MAP (currently at 7.2 MAP) and help relieve LAX by becoming the region's second major international airport. Palmdale Airport, San Bernardino International, March Inland Port, and Southern California Logistics not only have ample available capacity, but can serve future demand with far fewer environmental impacts compared to the highly constrained urban airports. These airports can also serve future demand with relatively modest capital investments since they have much of the essential infrastructure already in place.

EXHIBIT 1 SCAG REGION REGIONAL AIR CARRIER SYSTEM



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

The 2004 RTP estimates that investments at the four new and emerging airports, needed to accommodate the forecast demand of 170 MAP, total about $4 billion in improvements. Adding needed investments at the other airports in the system (but not LAX), the required capital requirements at region airports total about $6.3 billion. This is a modest sum for serving an 80 MAP increase in demand over the next 25 years, compared to the exorbitant cost of building new airports to accommodate this demand.

The primary challenge of decentralizing demand to these airports relates to the fact that the core of aviation demand will continue to reside in the urban areas of Los Angeles and Orange counties. The greatest population and employment growth over the next 25 years is forecast to occur in the Inland Empire. The region is forecast to grow at a 1.25% annual growth rate as it adds about seven million people over from 2000 to 2035 (reaching a total of 23.5 million). Riverside and San Bernardino counties are forecast to grow by 3.4% and 1.9%, respectively, while Los Angeles and Orange counties will add population at rates less than 1%. The Inland Empire will also add jobs at significantly higher rates than the regional average.

However, by 2035 the bulk of future aviation demand (82%) will still remain in Los Angeles and Orange counties (currently 90% of total regional demand). The main reason for this is that Los Angeles and Orange counties will continue to generate higher rates of air passenger trips per capita compared to the rest of the region. Their high trip propensities relate to greater levels of disposable income, and high concentrations of activities that greatly depend on air travel. These activities include international trade, tourism, entertainment, business services and high technology.

AIRPORT DECENTRALIZATION AND GROUND ACCESS STRATEGY

The future challenge of meeting future aviation demand in the SCAG Region is inextricably tied to airport ground access, since in order to meet that demand the region will need to get future air passengers from the urban areas of Los Angeles and Orange counties to available airport capacity in the Inland Empire and North Los Angeles County. The challenge is complicated by the fact that the regional roadway system will be become increasingly unreliable, with daily delay on the system expected to more than double. This will place a great burden on the air traveler, who will have to allow for more time to get to the airport to catch his or her flight. It will make it difficult to expand the new airports with available capacity, since until they fully mature they will have few alternative flights to offer air travelers who miss their flights because of unreliable ground access. Unless the regional airport ground access system is substantially improved, many potential air travelers will choose not to fly at all, which will translate to substantial economic loss to the region. The 2004 RTP estimates that a constrained 2030 regional airport system with conservative assumptions about future airport ground access improvements translates to a loss of $18 billion and 131,000 jobs to the economy of Southern California.

SCAG adopted Regional Aviation Decentralization Strategy calls for making substantial airport ground access improvements throughout the region, in both the short term and long term. The short term program emphasizes relieving immediate bottlenecks around airports through arterial, intersection and interchange improvements, and increasing transit access to airports. Many of these improvements were programmed in the 2004 RTP, and are being updated for the 2008 RTP with strong local input from airport, city and county transportation planners.

SCAG is currently working with Los Angeles World Airports (LAWA) on planning and programming a regional system of FlyAways, based on the very successful Van Nuys FlyAway where passengers park their cars and take a bus to LAX. The locations of the proposed new FlyAways can be optimized by taking advantage of the region's developing high-occupancy vehicle (HOV) and light and heavy rail networks that can provide direct linkages to Ontario and Palmdale as well as LAX. Making seamless HOV and rail connections with enhanced service to those and other suburban airports will also comprise SCAG's short- and medium-range airport ground access strategy. The FlyAway, HOV and rail improvements to the suburban airports will help establish a pattern of

decentralization, by attracting a critical mass of passengers and airline service at those emerging airports.

Over the long term, SCAG aviation demand modeling indicates that the region will also need a system of high-speed rail to the suburban airports to reach our adopted aviation forecasts, which are moderate and even conservative when compared to other forecasts for the region such as those developed by the FAA. The high speed, reliability and predictability of high speed airport access will be needed to overcome mounting and increasingly unpredictable traffic congestion. For example, the initial operating segment of SCAG's proposed high-speed rail system from West Los Angeles to Ontario Airport will take only 30 minutes to travel from end to end, compared to over two hours by car in 2030. The regional high-speed rail system is an integral component of the 2008 RTP Preferred 2035 regional aviation demand forecast, as discussed further in this Report.

Recent History of Regional Aviation Planning in the SCAG Region

The latest regional aviation demand forecasts and policies developed for the 2008 RTP represent an evolution and refinement of aviation planning work that SCAG has conducted over the last two decades. They also reflect a regional consensus that has developed around key regional aviation issue. Regional aviation planning that SCAG has conducted during this time period is summarized below, to place current planning for the 2008 RTP in proper perspective.

MILITARY AIR BASE AND AIR CARGO PLANNING IN THE 1990S

In the 1990s, the focus of the SCAG Aviation Program shifted from airport site selection studies to assessing the potential commercial use of military air bases in the region. This was in response to a windfall of potential new airports that was presented with the closing or downsizing of a number of military air bases in two rounds of base closures in1991 and 1993. These included Norton Air Force Base (now San Bernardino International) March Air Force Base (now March Inland Port and March Air Reserve Base), George Air Base (now Southern California Logistics), and Marine Corps Air Station El Toro. SCAG aviation planners assessed the potential of these bases, as well as NAS Point Mugu in Ventura County, in a military air base study conducted in 1994. Detailed joint use feasibility studies of Point Mugu and March Air Force Base were also developed in 1994 and 1997.

The notable feature of all of these studies was that they employed sophisticated computer model technology to generate and allocate demand to existing and hypothetical airports. This technology is based upon extensive passenger surveys taken at all air carrier airports in the region that allow the model to replicate how different kinds of passengers would choose airports in a regional system that offers a variety of airport choices. This technology, called the Regional Aviation Demand Allocation Model (RADAM) was an enormous improvement over how SCAG aviation planners previously developed regional aviation forecasts. Previous forecasts employed relatively crude manual techniques and subjective judgment in trying to determine the potential of new airports to attract passengers and cargo to them in competition with established airports.

In 1992, SCAG aviation planners completed the region's first regional air cargo study, which documented evolving trends in the air cargo industry, such as the counties in the region that produced the most air cargo, and the potential of airports to serve only cargo and few or no passengers. The cargo estimation methodologies developed for that study, along with the RADAM technology, were applied to a military/civilian joint use study of March Air Force Base joint use study completed by SCAG in 1997. The main recommendations of that study were that there were no insurmountable obstacles to joint use of March AFB, and that the base had great potential as an all-cargo airport. The findings of that study set the stage for the signing of a joint use agreement between the U.S Air Force and the March Joint Powers Authority in 1997. After the March joint use study was completed, other former military bases in the In-

land Empire, including San Bernardino International and Southern California Logistics, also became interested in the all-cargo concept.

1998 REGIONAL TRANSPORTATION PLAN

SCAG's aviation system study for the 1998 Regional Transportation Plan (RTP) employed the RADAM modeling technology, and included all of the recently downsized or closed military airports, as well as Palmdale Airport, as potential new airports. This was in addition to the existing air carrier airport system of LAX, Ontario, Burbank, Long Beach, John Wayne and Palm Springs airports. However, the 1998 system study did not assume any capacity constraints at any of the airports, either legally enforceable policy constraints or physical capacity constraints. This produced an allocation of 94 million air passengers (MAP) to an unconstrained LAX in 2020, or 60% of the total regional forecast of 157 MAP. This forecast generated a considerable amount of debate and controversy. It was adopted by the Regional Council for the 1998 RTP, but only conditionally. The attached condition was that the issues associated with an unconstrained forecast would be revisited in the 2001 RTP and the process would be guided by an Aviation Task Force made up of elected officials, airport managers, representatives of the aviation industry and other public organizations. The Aviation Task Force has guided the system planning work performed for all subsequent RTPs.

2001 REGIONAL TRANSPORTATION PLAN

For the 2001 aviation system study, the Aviation Task Force defined a total of eight new system scenarios for modeling analysis in addition to the 1998 plan. In defining these scenarios, considerable attention was given to recognizing legally-enforceable policy constraints at airports, such as the 41 flights per day restriction at Long Beach which translated to 3 MAP, and the settlement agreement at John Wayne airport which at that time imposed an 8.4 MAP cap at John Wayne. All of the scenarios assumed market incentives to attract passengers to outlying airports including major ground access improvements to decrease travel times, full passenger awareness through marketing programs, free or low cost parking, and free shuttle service from major activity centers. All of them except the No Project Alternative also assumed an interregional high speed rail system that would connect most of the airports in the system. The scenarios were distinguished primarily by whether or not they assume capacity improvements at LAX from its previously proposed master plan, and whether or not they assume El Toro in the system. The No Project scenario also has Ontario constrained to its existing physical runway capacity of about 30 MAP.

During the middle of the system study, aviation staff decided to conduct a new capacity analysis for LAX and the Burbank Airport (now Bob Hope) to update capacity figures inherited from previous studies. The new capacity figures for LAX and Burbank were 78 MAP (runway capacity) and 9.4 MAP (terminal gate capacity), respectively. Some scenarios also incorporated an 86 MAP level for LAX that corresponded to the LAX Master Plan Alternative C. Also, the later scenarios eliminated NAS Point Mugu from the system, because the Navy went on record as opposing joint use of that facility.

The scenario that was adopted by SCAG for the 2001 RTP has been called a Decentralized Aviation Plan for several reasons. The Plan holds LAX to its physical capacity of 78 MAP; respects physical or legally-enforceable policy constraints at urban airports including Burbank, Long Beach and John Wayne; includes El Toro; and spreads the service of aviation demand to airports in the Inland Empire and north Los Angeles County to the extent possible. All of those outlying airports are unconstrained, assume market incentives to attract passengers to them, and are connected by a high-speed rail system. The adopted regional aviation forecast for the 2001 RTP was 167 MAP in 2025.

2004 REGIONAL TRANSPORTATION PLAN

Shortly after aviation system planning work for the 2004 RTP was initiated in March of 2002, Orange County voters approved Measure "W" that changed the Orange County General Plan to designate MCAS El Toro property for park and education compatible purposes. That same month the Department of Defense announced that it would sell El Toro land to private interests to be developed in a manner consistent with the new General Plan designation. The

Aviation Task Force subsequently decided not to include El Toro in any of the new regional aviation demand scenarios that were modeled and evaluated for the 2004 RTP. Other unfolding realities that were incorporated in the modeling included the sharp downturn of aviation passenger and cargo activity after the events of September 11, 2001, and the impacts of new security requirements on passenger demand at air carrier airports, particularly LAX.

The loss of El Toro as a potential commercial airport for the region presented a new set of challenges in developing a new Regional Aviation Plan for the 2008 RTP. This was because RADAM modeling demonstrated that even with very high population and growth rates in the Inland Empire and North Los Angeles County, the bulk of regional aviation demand in 2030 will still be concentrated in Orange County and western Los Angeles County. With John Wayne Airport constrained to it Settlement Agreement constraint of 8.4 MAP, Orange County was forecast to serve only about 1/3 of its aviation demand in 2030. The main challenge was how to decentralize locally-unmet aviation demand in the urban areas of Los Angeles and Orange counties to underutilized suburban airports in the Inland Empire and North Los Angeles Country with available capacities.

A total of six new regional aviation scenarios were modeled for the 2004 RTP, ranging from a highly constrained scenario to a completely unconstrained scenario, with a number of "moderate" scenarios in between. The 2001 plan assumed that a new runway would be constructed at Ontario Airport (for a total of three runways) but due to opposition by the City of Ontario, the airport was assumed to retain its existing two-runway configuration in all of the scenarios. A capacity analysis of Ontario concluded that it has an existing physical capacity of 30 MAP.

The Preferred Scenario that was adopted for the 2004 RTP held existing urban airports to their physical or legally-enforceable capacity constraints, and decentralized demand to suburban airports with available capacity to the maximum extent possible. An intra-regional high-speed rail system to those airports was assumed, which boosted demand served at those airports by making the airport access trip from urban areas much faster, and more convenient and predictable in the face of mounting traffic congestion. Market incentives at the suburban airports were assumed, and as well as incentives to use the high-speed rail system such as "integrated pricing" that would combine high-speed rail fares with air fares in the total ticket price. The adopted regional aviation demand forecast for the 2004 RTP was 170 MAP in 2030.

The Regional Aviation Plan adopted for the 2004 RTP also proposed an implementation plan/plan of action to be prepared following adoption of the 2004 RTP. It would include a regional airport ground access improvement plan, a regional airport financial plan, and a regional airport management plan. SCAG prepared an Airport Ground Access Element for the 2004 RTP that specified projects for each air carrier airport that are needed to keep ground access congestion in its service area at acceptable levels. Over the last three years SCAG has completed two regional airport management studies that evaluated alternative regional airport governance structures. SCAG aviation staff is currently working closely with the newly-reactivated Southern California Regional Airport Authority to implement the findings and recommendations of those studies.

Regional Aviation Forecasts for the 2008 Regional Transportation Plan

Recommended 2035 regional aviation demand forecasts for commercial airports in the regional aviation system, for air passengers and cargo, are shown in Table 1 and Table 2. The recommendations are for both the 2008 RTP (constrained plan) and the 2008 Strategic Plan. As discussed in a later sectionl, the variations of the 2035 Preferred regional aviation demand scenarios that were modeled only vary by the different configurations of the HSRT system that were assumed. The regional aviation demand forecasts for the 2008 RTP and 2008 Strategic Plan are therefore consistent with the HSRT systems that are recommended to be included in these plans. For the 2008 RTP, the 2035 regional aviation demand forecast is based on the Preferred Scenario that assumes the extended Initial Operating Segment (IOS) of the HSRT system, and for the 2008 Strategic Plan the forecast is based on the Preferred Scenario that

assumes the full HSRT system. Assumptions and parameters used to model all of the regional aviation demand scenarios are described later in the Report, under the section entitled, Aviation Demand Modeling and Forecasting for the 2008 RTP.

TABLE 1 2035 REGIONAL AIR PASSENGER DEMAND ALLOCATIONS FOR 2008 REGIONAL TRANSPORTATION PLAN AND STRATEGIC PLAN (IN MILLIONS OF ANNUAL AIR PASSENGERS - MAP)

Air Carrier Airports	2008 Regional Transportation Plan	2008 Strategic Plan
Bob Hope	9.4	9.4
John Wayne	10.8	10.8
LAX	78.9	78.9
Long Beach	4.2	4.2
March Inland Port	2.5	2.5
Ontario	31.6	31.6
Palmdale	6.3	12.9
Palm Springs	4.1	4.1
San Bernardino	9.4	9.4
So. Cal. Logistics	2.9	4.0
Commuter Airports		
Imperial	3.5	3.5
Oxnard	1.7	1.7
Region Total	**165.3**	**173.0**

TABLE 2 2035 REGIONAL AIR CARGO DEMAND ALLOCATIONS FOR 2008 REGIONAL TRANSPORTATION PLAN AND STRATEGIC PLAN (X 1000 TONS)

Air Carrier Airports	2008 Regional Transportation Plan	2008 Strategic Plan
Bob Hope	86	86
John Wayne	45	45
LAX	2,496	2,496
Long Beach	134	134
March Inland Port	1,130	1,131
Ontario	1,959	1,959
Palmdale	781	812
Palm Springs	129	129
San Bernardino	1,290	1,290
So. Cal. Logistics	230	228
Region Total	**8,280**	**8,310**

Regional Aviation Policies

New regional aviation policies are recommended for the 2008 RTP with input from both the SCAG Aviation Task Force and the SCAG Aviation Technical Advisory Committee (ATAC). They respond to changing circumstances and new priorities in the regional aviation system. The recommended policies are divided into Aviation Guiding Principles and Aviation Action Steps, as follows:

AVIATION GUIDING PRINCIPLES

- Provide for regional capture of economic development opportunities and job growth created by the prospect of significant regional air traffic growth between now and 2035.
- Distribute maximum opportunity to Southern California airports where population and job growth are expected to be strong and where local communities desire air traffic for economic development.

- Reflect environmental, environmental justice and local quality of life constraints at existing airports that operate in built-out urban environments.
- Reflect that each county should have both the obligation and the opportunity to meet its own air traffic needs where feasible.
- Reflect that the region as a whole has an obligation to help pay the costs of airport environmental mitigation and ground access improvement in counties that serve a disproportionate share of regional air travel demand at their airports.

AVIATION ACTION STEPS

- Support capacity enhancements at existing and potential airports to handle anticipated increases in passengers and cargo volume where it is desired.
- Mitigate the effects of expanding airports and maximize air passenger and air cargo utilization of outlying airports in less-populated areas so that community impacts are minimized.
- Support the continued responsibility of SCAG for developing regional aviation and ground access plans for the region.
- Support the close cooperation between SCAG and other aviation organizations to facilitate the implementation of adopted regional aviation plans prepared by SCAG.
- Support legislative, marketing and ground access initiatives that promote the decentralization of aviation demand to under-utilized suburban airports where it is desired.
- Support more flexible use of airport revenues for off-airport ground access projects.
- Support giving priority to key airport ground access projects in the programming of transportation projects in the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP).
- Support a the development of a regional network of new flyaways that connect to multiple airports via HOV, light rail and commuter rail facilities, to help decentralize aviation demand to under-utilized suburban airports where it is desired.
- Support efforts to redesign the regional airspace system that may be needed to reduce significant conflicts and delays associated with future air traffic in SCAG's adopted 2035 regional aviation forecast.
- Support a more active role by the federal government in developing substantial incentives for airlines to upgrade their aircraft fleet to cleaner and quieter aircraft.

Aviation Demand Modeling and Forecasting for the 2008 RTP

For the 2008 RTP only three basic scenarios were modeled—an Unconstrained Scenario, a Constrained Scenario and a Preferred Scenario (with several variations, varied by different high-speed rail assumptions). This reflected a shrinking universe of possibilities with the loss of some potential commercial airports (i.e., El Toro and Point Mugu), and a regional consensus that had developed around some key issues. These consensus positions include a policy that LAX should be held to 78.9 MAP (LAX Settlement Agreement), that existing legally-enforceable policy and physical capacity constraints at urban airports should be respected, and that market incentives and ground access improvements should be used in the modeling to decentralize demand to suburban airport with the available capacity to the maximum extent possible.

New RADAM aviation demand modeling for the 2008 RTP incorporated updated assumptions about the impact of security screening at airports on passenger behavior, and the impact of rising fuel costs on air fares (a doubling of fuel prices in constant dollars by 2035 was assumed). For the first time air travel demand from San Diego County was assumed (San Diego International/Lindbergh Field was constrained to its physical capacity of 22.9 MAP) and demand served by commuter airports in Southern California was included (i.e., Oxnard, Imperial and Palomar airports).

UNCONSTRAINED SCENARIO

The Unconstrained Scenario is a hypothetical scenario that assumes no physical or policy constraints at any air carrier airport in the region. In other words, each airport is allowed to expand without constraints and serve as much demand as it can. It is used as a benchmark to compare other scenarios with in terms of how close they come to serving unconstrained demand, and how much unserved or "latent" demand they represent.

The 2035 Unconstrained Scenario reached a regional total of 192.4 MAP in 2035 (and 215.4 MAP including unconstrained demand from San Diego County). This only slightly higher than the 192.0 MAP 2030 Unconstrained Scenario modeled for the 2004 RTP, mainly due to the assumed doubling of real fuel costs. The Unconstrained Scenario represents a 3.93 percent average annual growth rate from 2005 to 2035. This is less than the 4.44 percent growth rate from 2005 to 2025 for the FAA's unconstrained Terminal Area Forecast for the Western-Pacific Region.

CONSTRAINED SCENARIO

The 2035 Constrained Scenario represents a very conservative vision of the regional airport system. It assumes no high-speed rail system, no market incentives, and very conservative behavior on the part of the airlines in investing added flights at new and emerging airports. Like the other scenarios, it respects existing legally-enforceable policy and physical capacity constraints at urban airports.

In 2003 the Settlement Agreement at John Wayne Airport was amended to allow it to expand from 8.4 MAP to 10.8 MAP, so this new policy constraint was incorporated in the Constrained Scenario. A more detailed evaluation of the runway capacity constraint at Ontario Airport raised its constraint from 30.0 MAP to 31.6 MAP. The Bob Hope terminal gate constraint of 10.7 MAP that was used in the 2004 RTP was lowered to 9.4 MAP since Bob Hope Airport staff determined that the four remote aircraft parking gates assumed in the 2004 plan were no longer available for aviation uses. At the request of the March Joint Powers Commission, instead of assuming that March Inland Port was unconstrained, it was considered to be constrained by the 21,000 annual civilian operations allowed in the operative joint use agreement with the Air Force. A RADAM capacity analysis determined that this constraint equates to 2.5 MAP at March Inland Port, compared to an 8.0 MAP 2030 unconstrained forecast for March in the 2004 RTP. A refined capacity analysis of San Bernardino International's one-runway system produced a runway capacity constraint of 8.7 MAP. Neither March nor San Bernardino reached their capacity constraints in the Constrained Scenario due to its very conservative assumptions about future airline investment behavior.

The assumptions and parameters used to model the 2035 Constrained Scenario are as follows:

- LAX: Settlement Agreement - 78.9 MAP
- Bob Hope: Existing terminal/gate capacity – 9.4 MAP
- Long Beach: Flight restriction of 41 flights/day – 3.2 MAP
- John Wayne: New Settlement Agreement – 10.8 MAP
- Ontario: Existing runway) capacity – 31.6 MAP
- San Bernardino and Palmdale: Charter, corporate & commuter/short haul
- March and Southern California Logistics: Cargo, charter and corporate
- San Diego International: Existing runway capacity – 22.9 MAP
- Oxnard, Imperial and Palomar: Corporate, charter and commuter only (Oxnard & Palomar – constrained ops)
- Planned (RTP) ground access improvements
- No market incentives
- No high-speed rail
- Doubling of aircraft fuel costs

RADAM modeling for the Constrained Scenario produced a regional total of 145.9 MAP in 2035 (170.1 MAP including constrained demand from San Diego County). The Constrained Scenario for the 2004 RTP totaled 140.8 MAP in 2030.

PREFERRED SCENARIO

The Preferred Scenario is very similar to 2030 regional aviation system adopted for the 2004 RTP. It respects all legally-enforceable policy and physical capacity constraints at urban airports, with the changes modeled by the Constrained Scenario previously described. It assumes much more willingness on the part of the airlines to invest in new flights at new and emerging airports than in the Constrained Scenario, and a package of market and ground access incentives including the following:

- For Palmdale, ground access reliability would be the same as other airports. This assumes that additional access routes will be constructed to decrease the dependence of Rte. 14 in providing ground access to Palmdale Airport
- For Palmdale, future air trip propensities in the Antelope Valley increased by 15 percent to bring them closer to those in the San Fernando Valley. This assumes more high-income and high-tech employment in the Antelope Valley in the future
- For Palmdale, San Bernardino, March and Southern California Logistics airports: 100 percent of residents and 80 percent of non-residents are aware of airport choices. This assumes pervasive marketing campaigns, and automated internet-based booking systems
- Low-cost parking available at Palmdale, San Bernardino, March and Southern California Logistics airports
- Free shuttle service from major activity centers to Palmdale, San Bernardino, March and Southern California Logistics airports

Several variations of the Preferred Scenario were run, that varied by what they assumed for high-speed rail connections between airports. High-speed access tends to boost demand to airports with available capacity, particularly if it connects them to urban demand centers in Los Angeles and Orange counties. This is because it makes the access trip to those airports much faster, convenient and predictable in the face of mounting traffic congestion on major highways and surface streets in the future. The full intra-regional high-speed regional transport (HSRT) system is shown in Exhibit 2.

The Preferred Scenario that was modeled with the full HSRT system produced a 2035 regional demand total of 173.0 MAP (198.4 MAP including demand from San Diego County). This is very close to the adopted 2030 forecast for the 2004 RTP of 170.0 MAP. A variation of this scenario with the HSRT line extended to Palm Springs Airport instead of a March Inland Port constrained to 2.5 MAP boosted the 2035 regional demand total slightly, to 175.2 MAP (200.6 MAP including San Diego). A Preferred Scenario with no HSRT system reached 155.9 MAP in 2035 (177.9 MAP including San Diego).

The final variation of the Preferred Scenario that was modeled incorporated an abbreviated version of the HSRT system, which is the Initial Operating Segment (IOS) running from West Los Angeles to Ontario Airport, and extending west to LAX and east to San Bernardino International. This variation of the Preferred Scenario reached 165.3 MAP in 2035 (189.8 MAP including San Diego).

The 2035 modeling results of all three four variation of the Preferred Scenario by airport, compared to the allocations of the Constrained Scenario, are shown in Table 3.

EXHIBIT 2 PROPOSED HIGH-SPEED REGIONAL TRANSPORT SYSTEM



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

TABLE 3 2035 AIR PASSENGERS ALLOCATIONS FOR REGIONAL AVIATION DEMAND SCENARIOS (IN MILLIONS OF ANNUAL AIR PASSENGERS – MAP)

Air Carrier Airports	Constrained Scenario	Preferred Scenario without HSRT	Preferred Scenario with HSRT Extended IOS	Preferred Scenario with HSRT full system (to March Inland Port)
Bob Hope	9.4	9.4	9.4	9.4
John Wayne	10.8	10.8	10.8	10.8
LAX	78.09	78.9	78.9	78.9
Long Beach	3.2	4.2	4.2	4.2
March Inland Port	0.6	2.5	2.5	2.5
Ontario	31.6	28.8	31.6	31.6
Palmdale	2.6	6.3	6.3	12.9
Palm Springs	4.1	4.1	4.1	4.1
San Bernardino	2.9	3.3	9.4	9.4
So. Cal. Logistics	0.7	2.4	2.9	4.0
Commuter Airports*				
Imperial	0.9	3.5	3.5	3.5
Oxnard	0.2	1.7	1.7	1.7
Region Total	**145.9**	**155.9**	**165.3**	**173.0**

* Existing commuter airports with potential to accommodate short-haul service

AIR CARGO FORECASTS

Air cargo forecasts were developed for each of the 2035 scenarios that were modeled, except for the Unconstrained Scenario. The forecasts ranged from 7.6 million tons for the Constrained Scenario to over 8.3 million tons for a Preferred Scenario with the full intra-regional HSR system. The adopted 2030 air cargo forecast for the 2004 RTP was 8.7 million tons. There are a variety of reasons why the new air forecast is lower than the adopted forecast in the last RTP. These include more domestic cargo being transported by truck and train, more international air cargo over-flying the region on longer-range aircraft or flying the Arctic Circle route with a stop at Anchorage, and high value-to-weight goods such as computers forecast to be lighter per unit volume. The 2035 modeling results of the air cargo forecasts are shown in Table 4. It should be noted that these forecasts are only for existing air carrier airports. Imperial Airport has potential to handle significant volumes of cross-border air cargo that are not included in these forecasts.

TABLE 4 2035 AIR CARGO ALLOCATIONS FOR REGIONAL AVIATION DEMAND SCENARIOS (X 1000 TONS)

Air Carrier Airports	Constrained Scenario	Preferred Scenario without HSRT	Preferred Scenario with HSRT Extended IOS	Preferred Scenario with HSRT full system (to March inland Port)
Bob Hope	86	86	86	86
John Wayne	45	45	45	45
LAX	2,621	2,574	2,496	2,496
Long Beach	109	139	134	134
March Inland Port	988	1,009	1,130	1,131
Ontario	2,086	2,117	1,959	1,959
Palmdale	463	658	781	812
Palm Springs	131	130	129	129
San Bernardino	831	1,072	1,290	1,290
So. Cal. Logistics	266	270	230	228
Region Total	**7,626**	**8,100**	**8,280**	**8,310**

AIRPORT GROUND ACCESS ELEMENT

The 2008 RTP may have localized ground access impacts at a number of airports. Particularly, the RTP will result in significant increases in airport activities (people as well as cargo) at Ontario, San Bernardino International, and Palmdale airports. RADAM modeling for the Preferred Scenario shows that

airport ground access deficiencies are concentrated near airport areas but that background congestion affects both airports and local communities.

The Airport Ground Access element for the 2008 RTP updates the list of arterial, intersection, interchange and transit improvements recommended by the 20004 RTP. These projects, consistent with RADAM modeling for the 2035 Preferred Scenario, are those that are needed to keep congestion within defined airport service areas for each airport at acceptable levels. They also reflect substantial input from local aviation and transportation planning staff from airports, cities and counties on local policies and priorities for airport ground access improvements.

The recommended airport ground access projects are divided into constrained projects that have funding commitments (i.e. the 2008 RTP) and unconstrained projects that do not have funding commitments (i.e., the 2008 Strategic Plan). Funding for the constrained projects total $2.3 billion, and funding for all projects in the Airport Ground Access Element, both constrained and unconstrained, total $5.2 billion.

Profiles of Air Carrier Airports in the Region

BOB HOPE AIRPORT (BUR)

1. Role in regional aviation system
   a. Bob Hope Airport in Burbank, California is a very convenient airport for its local service area comprising the cities of Burbank, Glendale and Pasadena, with good access to and from Los Angeles and the San Fernando Valley. Service is provided by Alaska, Aloha, American, Southwest, United, and US Airways, with frequent schedules along the West Coast and connecting flights across the entire country.
2. Recent passenger and cargo trends
   a. Air passenger and cargo activity are expected to increase steadily

TABLE 5 PASSENGER AND CARGO LEVELS AT BUR

	2000	2001	2002	2003	2004	2005	2006
Passenger (millions)	4.7	4.5	4.6	4.7	4.9	5.5	5.7
Cargo (million tons)	0.04	0.03	0.04	0.05	0.05	0.05	0.06

3. Airport location and acreage
   a. Location: 34° 12′ 02″ north latitude by 117° 21′ 31″ west longitude
   b. Acreage: Approximately 554.78 acres
4. Runway number and length
   a. Runway 15/33 – 6,886 feet long, 150 feet wide
   b. Runway 8/26 – 5,801 feet long, 150 feet wide
5. Terminal square footage and number of gates
   a. The BUR terminal is 212,000 square feet equipped with 14 gates
6. Hours of operation
   a. 24 hours General Aviation airport
   b. Commercial Service operations usually between 06:30 – 20:00 hours
7. Legal or physical capacity constraints
   a. The Airport Authority and the City of Burbank entered into an Airport Development Agreement in February 2005. The settlement outlines development guidelines for Bob Hope Airport over the next 10 years, including:

- The City will not change its zoning for the Airport, so that the Airport Authority may meet its facility needs consistent with that zoning for a period of seven years;
- The Airport Authority will not build a new passenger terminal for ten years and will not enlarge the current terminal during the agreement;

- The Airport Authority and City staff will jointly develop a strategy for addressing the desire for nighttime airport noise relief consistent with federal laws and procedures. This joint effort will include consideration of options within the Part 161 Study and options outside that process as well.

b. No stage 2 aircraft operations between 20:00 – 07:00

c. 14 aircraft parking positions/gates have a physical capacity of about 9.4 million air passengers (MAP)—SCAG analysis

8. Planned facility and ground access improvements

a. Construction of taxiway Delta to serve east west runway (est. 2008)

b. Parking restructuring

c. A new valet drop off/pickup zone

d. A new Pick-Up Center for a quicker exit from the airport

e. Reconstruction of I-5/Empire interchange with HOV access to the airport

f. Expansion of Burbank Bus Transit Center

g. Orange Line extension to the airport

JOHN WAYNE AIRPORT (SNA)

1. Role in regional aviation system

a. SNA is operated by the County of Orange and is the only commercial airport in Orange County. The service area includes 3 million people within the 34 cities and unincorporated areas of Orange County. In addition SNA is only one of two airports in Orange County to accommodate general aviation. SNA is served by three fixed-based operators and is home to more than 600 general aviation aircraft.

2. Recent passenger and cargo trends

a. SNA has served more than 100 million air passengers (MAP) since 1990. Designed to accommodate 8.4 MAP, the Riley Terminal has been serving approximately 9.6 MAP since 2006.

TABLE 6 PASSENGER AND CARGO LEVELS AT SNA

	2000	2001	2002	2003	2004	2005	2006
Passenger (millions)	7.77	7.32	7.90	8.53	9.27	9.62	9.61
Cargo (tons)	18,119	16,146	15,646	15,406	20,152	24,073	23,903

3. Airport location and acreage:

a. Location: 33° 40′ 32″ north latitude by 117° 52′ 5″ west longitude

b. Acreage: 500.82

4. Runway number and length

a. Runway 01L/19R – 5700 feet long, 150 feet wide

b. Runway 01R/19L – 2887 feet long, 75 feet wide

5. Terminal square footage and number of gates

a. Terminal A and Terminal B square footage total is 448,505 square feet (Each Terminal has approximately the same square footage, so if you divide this in half, you get approximately 224,250 square feet – Terminal B concourse is just slightly longer than Terminal A, but generally the square footage is close to equally split.).

b. SNA has 14 jet-bridges with 2 remote gates at each end of the terminal.

6. Hours of operation

a. The terminal operates daily from 0600 – 2230 daily.

b. The tower is staffed from 0530 – 2200 daily.

c. The Administration Building is staffed from 0730 – 1700 Monday – Friday.

d. Airside Hours of Operations:

- Departures: 0700 to 2200 (Monday – Saturday), 0800 to 2200 (Sunday)
- Arrivals: 0700 to 2300 (Monday – Saturday), 0800 to 2300 (Sunday)

7. Legal or physical capacity constraints
   a. 1985 – Settlement Agreement - A Federal court settlement was signed in 1985 by the County of Orange, the City of Newport Beach, the Airport Working Group (AWG), and the Stop Polluting Our Newport (SPON) to formalize the consensus reached between the County of Orange and the local communities on the nature and extent of airport improvements and defined operational and capacity limitations on those improvements.
   b. The 2003 Amendments of the 1985 Agreement allow John Wayne Airport to increase passenger levels to 10.3 MAP (through 12/31/10) then to 10.8 MAP (through 12/31/15) with a maximum of 85 flights per day. In addition, the amendment allow for the addition of new jet-bridges (not to exceed 20 total).
   c. General Aviation Noise Ordinance – The Orange County General Aviation Noise (GANO) establishes single event noise limits and other restrictions for aircraft operating at JWA.
8. Planned facility and ground access improvements
   a. Construction of a new terminal building south of the existing facility that would provide up to six passenger-loading bridges. Two of the six new passenger-loading bridges would be equipped to allow Federal Inspection Services (FIS), including Customs. The new terminal building facility and the existing facility would be connected via a concourse approximately 360 feet in length on the secure side of the terminal. The anticipated footprint of the facility is approximately 100,000 sq. ft. and is proposed as a multi-level structure encompassing an arrival level, departure level and mezzanine. Terminal design would allow access to all 20 passenger-loading gates from either the existing or proposed terminal building. An additional commuter area would be provided within the new terminal building facility to the south to accommodate commuter activity in the southernmost terminal. Passenger access to the commuter facilities would be on the lower level and access to these aircraft would be through ground loading.
   b. An extension of the existing terminal to the north, providing four passenger departure areas and hold rooms as well as ground boarding locations for commuter flights. Passenger access to these facilities would be via a new enclosed escalator adjacent to the existing stairway from the upper level passenger departure areas to the lower level and access to the aircraft would be through ground loading
   c. An extension of the hydrant fueling system to serve the passenger gates in the new terminal building and support aircraft refueling activities in the South Remain Overnight Area and cargo operations areas located south of the new terminal building. The hydrant fueling improvements would extend the existing hydrant fueling system to allow for hydrant fueling at up to 40 aircraft parking locations.
   d. Construction of a new multi-story parking structure sufficient to accommodate the authorized passenger levels that will be served at JWA. The parking structure would be located south of the existing east parking structure in the area currently used for valet parking. The parking structure footprint would be approximately 150,000 sq. ft. and provide up to 3,200 additional parking positions when completed. The proposed parking structure would be located within the onsite roadway improvements described below. The existing upper level roadway return would be demolished and the lower level return may be retained to improve on-site traffic flow and construction staging.
   e. Expansion of the existing apron area to allow for the parking of up to 34 total RON commercial aircraft. Twenty aircraft would be parked at gated positions, ten aircraft will be parked in remote, non-gated positions, and four will be commuter aircraft parked at non-gated positions. This would occur by extending the apron south of the current

terminal where the air cargo operations currently occur. The RON area would be increased by approximately 165,000 square feet and necessitate changes to the size and location of the transient apron currently located between the existing RON area and the first leasehold south of the RON. As a result of this RON expansion, air cargo operations would be moved further south to accommodate the new terminal building and facilities, but still remain on the east side of the Airport.

f. Modification of the lease holdings area on the east side of the Airport immediately south of the existing air carrier RON. This would include construction of a new hangar on the leasehold immediately south of the existing south RON. The strengthening of an existing transient apron would be required to accommodate the aforementioned improvements.

g. Provision of an additional right-turn lane on westbound Campus Drive to Bristol Street North, as required with Mitigation Measure T-1 in Final Program EIR 582. This turn lane would increase the number of turn lanes on Campus Drive to a total of three. The turn lane addition would be approximately 250 feet long and 15 feet wide. This improvement would require the relocation of the existing airport maintenance building, from the southeast corner of the Airport to an undeveloped parcel on the west side of the Airport in the vicinity of the existing airport administration building. The proposed maintenance facility will be located on a 2.4-acre site west of Aircraft Rescue and Fire Fighting (ARFF) Station 33. The new maintenance building would occupy a footprint of approximately 27,800 sq ft, and the gross facility including outbuildings will be approximately 32,000 sq ft. The existing maintenance facility on airport property on the corner of Campus Drive and Bristol would be demolished.

h. Modification of ancillary airfield components, such as relocation of helicopter landing pads required due to the aforementioned transient apron improvements and RON expansion, improvements to Taxiway 'C' to accommodate increased aircraft weights and to allow for two-way traffic during the morning bank of flights, and Taxiway 'A' improvements to support the increased length of the RON area and new terminal building, and other changes required by project design.

i. Relocation of various parking operations including on-site employee parking, valet parking, and rental car areas to accommodate the new terminal building.

j. Removal of the Edison 66 KV substation located south of the southwest parking structure and in the footprint of the new terminal building. When the substation is removed and prior to the start of construction on the new terminal building, Preferred Emergency (PE) gear will be installed or a secondary feed from the Michelson substation will be established on the Airport to avoid potential loss of electrical service. The selected temporary, back-up electric power source will be removed when the Airport installs an electric co-generation plant on site as part of a separate, independent project currently in design.

LONG BEACH AIRPORT (LGB)

1. Role in regional aviation system

   a. Known as the Region's "Easy in, Easy Out" Airport, LGB offers direct flights throughout the U.S. with convenient domestic and international connections. LGB offers easy access to the surrounding business centers and massive consumer markets. LGB is one of the world's busiest general aviation airports that serve privately-owned aircraft. With substantial general aviation activity LGB is an important reliever airport for LAX. Very strict noise regulations on commercial air operations have been put into place at LGB to protect the surrounding residential land uses. LGB currently accommodates about 3 Million Annual Passengers (MAP) and can potentially grow to somewhere between 4.2 to 5 MAP. In addition, Boeing Co. builds C-17 military airlifter aircrafts at LGB and Gulfstream has a completion/service center at LGB.

2. Recent passenger and cargo trends

a. In 2006 LGB dropped to 2.7 MAP because American Airlines ceased flying out of LGB. The flight slots have been re-allocated, and it is expected that 3 MAP should be reached in 2007. The decline in cargo tonnage is due to a reduction of all-cargo daily flights from 5 to 4. Approximately 49,947 tons of cargo passed through LGB in 2006. General aviation has been growing steadily with 333,824 general aviation operations in 2006, and has experienced over 23 percent growth so far in 2007.

TABLE 7 PASSENGER AND CARGO LEVELS AT LGB

	2000	2001	2002	2003	2004	2005	2006
Passenger (millions)	0.06	0.06	1.5	3.0	2.9	3.0	2.8
Cargo (million tons)	0.05	0.06	0.06	0.056	0.06	0.05	0.05

3. Airport location and acreage
   a. Location: 33° 49′ north latitude by 118° 09′ west
   b. Acreage: Approximately 1,170 acres
4. Runway number and length
   a. Runway 12/30 – 10,000 feet long, 200 feet wide
   b. Runway 7L/25R – 6,192 feet long, 150 feet wide
   c. Runway 7R/25L – 5,420 feet long, 150 feet wide
   d. Runway 16L/34R – 4,267 feet long, 75 feet wide
   e. Runway 16R/34L – 4,470 feet long , 75 feet wide
5. Terminal square footage and number of gates
   a. The LGB terminal is comprised of 56,320 square feet and includes 8 gates with 10 aircraft parking positions
6. Hours of operation
   a. 24 hours a day, 7 days a week (The Noise Compatibility Ordinance only permits airlines/commuters to schedule flights between the hours of 7am and 10pm)
7. Legal or physical capacity constraints
   a. The airport operates under the City of Long Beach's Airport Noise Compatibility Ordinance which limits the hours of operations for the airport. The Ordinance establishes cumulative noise budgets for airlines, commuters, charters, manufacturers, and general aviation. Airlines are guaranteed at least 41 daily flights (flights are defined as landings and takeoffs), and commuters are guaranteed at least 25 daily flights. Operational restrictions equivalent to a capacity of about 4.2 MAP
8. Planned facility and ground access improvements
   a. Long Beach City Council recently approved the design phase for terminal improvements; which include a terminal increase from 56,320 square feet to 89, 995 square feet.
   b. An increase in the number of aircraft parking positions from 10 to 12 slots has also been approved by City Council
   c. Additional on-site vehicular parking spaces have also been approved and will increase parking from 2,835 to 6,286 spaces.

LOS ANGELES INTERNATIONAL AIRPORT (LAX)

1. Role in regional aviation system
   a. LAX is the fifth busiest airport worldwide in terms of passengers and seventh worldwide in air cargo tonnage. LAX is served by approximately 80 passenger airlines, 20 cargo airlines and contributes more than $61 billion annually to the Southern California economy. LAX handles 70 percent of the passengers, 75 percent of the air cargo, and 95 percent of the international passengers and cargo traffic in the surrounding five counties. Approximately 408,000 jobs or one in twenty jobs are attributed to LAX operations in Southern California.

2. Recent passenger and cargo trends

   a. In 2005, more than 61 million passengers traveled through LAX. Rapidly becoming a major cargo center LAX has 1,000 cargo flights linking Los Angeles with the world. Its handling facilities include the 98-acre Century Cargo complex, the 57.4-acre Imperial complex, the Imperial Cargo Center and a number of terminals on the south side of the airport.

TABLE 8 PASSENGER AND CARGO LEVELS AT LAX

	2000	2001	2002	2003	2004	2005	2006
Passenger (millions)	67.3	61.6	56.2	55.0	60.7	61.5	61.0
Cargo (million tons)	2.0	1.8	1.9	1.9	2.1	2.1	2.1

3. Airport location and acreage

   a. Location: 33° 56′ north latitude by 118° 24′ west longitude

   b. Acreage: 3,425

4. Runway number and length

   a. Runway 24R/6L – 8,925 feet long, 150 feet wide

   b. Runway 24L/6R – 10, 285 feet long, 150 feet wide

   c. Runway 25R/7L – 12, 090 feet long, 150 feet wide

   d. Runway 25L/7R – 11,095 feet long, 200 feet wide

5. Terminal square footage and number of gates

TABLE 9 LAX TERMINAL SQUARE FOOTAGE AND NUMBER OF GATES

Terminal	Square Footage	Gates
1	365,750	15
2	486,653	10
3	300,766	13
TBIT	993,244	12
4	354,039	13
5	489,875	13
6	404,856	13
7	601,936*	11
8		9
Remote	N/A	28

**LAWA: Terminal 7 & 8 use the same baggage and ticketing counter and work cohesively, thus there is no reason to distinguish between the square footage*

6. Hours of operation

   a. 24 hours a day, 7 days a week

7. Legal or physical capacity constraints

   a. Million annual passengers (MAP) are limited to 78.9 million passengers

8. Planned facility and ground access improvements in 2008 RTP Airport Ground Access Element

   a. Airport Surface Street Access Project Modifications are projects aimed to alleviate ground access congestions and to complement future growth.

   - Project deleted or modified from the 2004 RTP (either initiated, completed or at the request of officials at Los Angeles World Airports and/or cities of Los Angeles and El Segundo):
     - Widen Sepulveda from Manchester to El Segundo to 5 lanes in each direction except for Sepulveda Tunnel—changed from Manchester to Lincoln

- Reconfigure Sepulveda southbound to Imperial westbound off-ramps to three lanes plus an emergency lane--deleted
- Add two additional turning lanes to the Century/Sepulveda intersection--deleted
- Widen Arbor Vitae (from I-405 to Sepulveda) to four lanes in each direction and two left turn lanes at Aviation and Airport intersections—left turn lanes deleted
- Widen Sepulveda between Lincoln and Centinela to provide bus/carpool priority lanes--deleted
- From Hughes Terrace to Fiji Way—widen up four lanes in each direction and various intersection improvements—under construction
- From Jefferson Blvd. to Fiji Way—widen from three to four through lanes in each direction, plus a fifth lane in each direction for ramp connect—under construction
- From I-105 to SR 90, add two HOV lanes and sound walls—under construction
- Rosecrans/Aviation intersection—lane additions and bridge widening—completed
- Arbor Vitae from La Brea to I-405—widening from two to four lanes with a left turn lane--completed

• Projects added (at the request of officials from Los Angeles World Airports and/or cities of Los Angeles and El Segundo):
  - Improve intersection at Aviation and Airport
  - Construct Pershing to new West Terminal interchange to a new arterial standard with three lanes in each direction and dual turning lanes
  - Add a second left-turn lane northbound and southbound on Centinela
  - Grade separation on Douglas between El Segundo to Rosecrans for Green Line

9. December 7, 2004 – City Council approved LAX Master Plan, Alternative D and Final Environmental Impact Report, with LAX Specific Plan approved on January 20, 2005.

   a. LAX Specific Plan "Green Light" Projects (i.e., "Baseline" Phase I master plan projects that are eligible for immediate recommendations by the LAWA Executive Director to the Board of Airport Commissioners)

   • South Airfield Improvements – Extend the life of Runway 25L and to relocate it approximately 50 feet south to accommodate a new center taxiway between the south runways. The new center taxiways will improve airfield safety and reduce runway incursions. $333 million project cost. Summer 2008 Estimated Completion.

   • Intermodal Transportation Center (ITC) – A new ITC located at the northeast corner of Imperial Highway and Aviation Boulevard will provide the primary short-term parking for the airport and transit access (including pedestrian access to a Green Line light rail station) as well as access to the Central Terminal Area (CTA) via the Automated People Mover System.

   • Consolidated Rental Car Facility

   • Automated People Mover System

   • Tom Bradley International Terminal (TBIT) airside/landside improvements. Program features baggage handling system automation and Explosive Detection System (EDS) installation. TBIT new large aircraft gate modifications to accommodate the A-380 and B-747 dual loading at the north and south end of terminal. Mechanical, electrical and plumbing upgrades. Signage, paging, airline information display updates. Critical elevator/escalator upgrades. Security upgrades – CCTV, ACAMS. Americans with Disabilities Act (ADA) compliance and fire/life safety upgrades. First Class/Business Class lounge upgrades. Interior finish improvements. $723.5 million project cost. Construction

begins January 2007 with a projected completion date of December 2009.

- Reconfigured Tom Bradley International Terminal (TBIT) – New hold rooms and departure gates capable of handling wide-body aircraft will be added to the west side of TBIT to replace the existing remote hardstands on the west end of the airfield.
- West Employee Parking – A new 12,000-space parking structure will be constructed on the west end of the airport to provide improved and consolidated employee security screening facilities. By locating this facility on the west side of the airport employee related traffic will be separated from local and passenger traffic.
- Expanded FlyAway Program – The FlyAway program will offer customers exclusive access to the internal CTA curb front.

b. LAX Specific Plan "Yellow Light Projects" (i.e., projects that must meet additional requirements prior to the Executive Director seeking an LAX Plan compliance, through a Specific Plan restudy)

- Center Taxiways – The airport's north runway system will be reconfigured to accommodate a center taxiway and improve the separation between the runways. Runway 24L of the south runway system will be relocated approximately 340 feet south, which will require the demolition of existing Terminals 1, 2, and 3, and the northern portion of the Tom Bradley International Terminal (TBIT).
- Construction of Ground Transportation Center (GTC) – The GTC will be built in the northeast end of the airport and will serve as parking and curbside passenger pick-up and drop-off. This facility will replace the existing drop-off/pick-up curbside and long-term parking in Lot C.
- Roadway for the GTC
- Automated People Mover system connecting the GTC to the CTA

MARCH INLAND PORT (MIP), IATA CODE IS RIV

1. Role in regional aviation system
   a. MIP currently operates as an all-cargo airport serving regional air cargo demand for both domestic and international air cargo services
2. Recent passenger and cargo trends
   a. The airport currently is not accommodating passenger commercial operations
   b. DHL is a major cargo carrier that has operations at MIP. The forecast for cargo tonnage is expected to increase based on the current available figures.

TABLE 10 PASSENGER AND CARGO LEVELS AT MIP

	2000	2001	2002	2003	2004	2005	2006
Passenger (millions)	0	0	0	0	0	0	0
Cargo (million tons)	0	0	0	0	0	9.24	43.96

3. Airport location and acreage
   a. Location: 34° 52′ 50″ north latitude by 117° 15′ 34″ west longitude
   b. Acreage: Approximately 300 acres
4. Runway number and length
   a. Runway 14/32 – 13,300 feet long, 200 feet wide
   b. Runway 12/30 – 3,010 feet long, 100 feet wide
5. Terminal square footage and number of gates
   a. None
6. Hours of operation
   a. 24 Hours
7. Legal or physical capacity constraints

a. Upon announcement in 1993 by BRAC of realignment of March AFB to an air reserve base, the adjoining jurisdictions formed the March Joint Powers Authority (JPA) to address base reuse at March AFB. The March JPA, in addition to being designated as the federally recognized reuse authority for the former active duty base, has also assumed other responsibilities. These responsibilities are carried out by governing bodies under the governance umbrella of the March JPA. These authorities include:

- The March Joint Powers Redevelopment Agency – responsible for the redevelopment of 6,500 acres of the former active base and approximately 450 acres adjacent to the base in the industrial area of the City of Moreno Valley.
- A streamlined the development process with the transferred of land use authority to March JPA from the County of Riverside. The establishment of building codes and standards by the March JPA.
- Management of airport development and operation through March Inland Port Airport Authority (MIPAA).

b. The Joint Use Agreement between the U.S. Air Force and the March JPA, signed in May, 1997, limits the base to 21,000 annual civil operations and 51,426 annual military operations (the civil operations are equivalent to about 2.5 MAP—SCAG analysis)

c. Costs associated to later night and early morning operations (23:00 – 07:00) may be shared with carriers on a negotiated fee basis

d. Current cargo users account for approximately 5,000 of the 21,000 allowable annual civilian operations.

8. Planned facility and ground access improvements

a. March Inland Port has over 600,000 square footage of future Ramp area planned for constructed. All planned facilities will be engineered to meet or exceed load requirements and to be fully stressed to accommodate aircraft up to 900,000 pounds.

b. Upgrading of Van Buren/I-215 interchange

ONTARIO INTERNATIONAL AIRPORT (ONT)

1. Role in regional aviation system

a. ONT is well situated to serve the future aviation needs of the Inland Empire and the Southern California Region for both cargo and passengers. Demand for air transportation will be created by the Inland Empire's rapid population growth; as well as its growth as a manufacturing and distribution center and the limited potential for expansion at LAX and other regional airports. The airport is the centerpiece of one of the fastest-growing transportation regions in the U.S. ONT is a medium-hub, full-service airport with commercial jet service to major U.S. cities and through service to many international destinations.

2. Recent passenger and cargo trends

a. ONT offers over 380 daily flights to every major U.S. city; which has facilitated the increase in passenger traffic over the past 10 years. In 2006, 7 million passengers and 602,326 tons of air freight traveled through ONT. Due to its location at the center of a rapidly developing freight movement system that includes the airport, two railroads, four major freeways and an expanding network of freight forwarders; ONT is served by nine major U.S. air freight carriers.

TABLE 11 PASSENGER AND CARGO LEVELS AT ONT

	2000	2001	2002	2003	2004	2005	2006
Passenger (millions)	6.8	6.7	6.5	6.5	6.9	7.2	7.0
Cargo (million tons)	0.5	0.5	0.5	0.6	0.6	0.6	0.5

3. Airport location and acreage

a. Location: 34° 03' north latitude by 117° 36' west longitude

b. Acreage: more than 1,700

4. Runway number and length

a. Runway 26R/8L – 12,200 feet long, 150 feet wide

b. Runway 26L/8R – 10, 200 feet long, 150 feet wide

5. Terminal square footage and number of gates
   a. Terminal 2 – 265, 000 square feet
   b. Terminal 4 – 265,000 square feet
   c. International Arrivals Terminal – 40,500 square feet
   d. ONT has 35 gates
6. Hours of operation
   - 24 hours a day, 7 days a week
7. Legal or physical capacity constraints
   a. Current policy prohibits flight training (touch and go's) by jet powered aircraft
   b. Current policy prohibits engine run-ups during late night hours (2200-0700)
   c. Current policy provides for the continuation of airport noise monitoring
   d. Current policy designates airport staff to deal with noise management issues
   e. Current policy establishes a 24-hour noise complaint telephone line
   f. Two-runway configuration has a physical capacity of 31.6 MAP (SCAG analysis)
8. Planned facility and ground access improvements
   a. When passenger traffic at ONT reaches 10 MAP in two consecutive years, a third terminal will be constructed
   b. Pacific Gateway Cargo Center Project: the approximately 96-acre project would consist of roughly one million square feet of interior space as well as approximately one million square feet of aircraft parking areas ("ramps"). The proposed project site also would include roads and surface lots for trucks and automobile parking. The construction site is west of the old terminal at the northwest corner of ONT. The EIR (Environmental Impact Report) for the project has been completed, and both the EIR and the lease are expected to be approved by the Board of Airport Commissioners in September or October 2007.
   c. Planned grade separations at South Milliken, North Grove and San Antonio
   d. Planned interchange improvements at I-10 and Grove, Vineyard and Euclid, and SR 60 at Mountain, Archibald, Euclid, Haven and Airport Dr.
   e. Planned extension of Metro Gold Line to airport

PALM SPRINGS INTERNATIONAL AIRPORT (PSP)

1. Role in regional aviation system
   a. PSP is one of the fastest growing airports in the U.S. and is expected to continue growing in relation to the forecasted growth in the Coachella Valley. Currently PSP is competing against the other airports in the Southern California region for passenger traffic. As the Coachella Valley population continues to grow, it is anticipated that PSP will play an integral part in the local and regional aviation demands.
2. Recent passenger and cargo trends
   a. In 2006 PSP was ranked the sixth fastest growing airport in the U.S. and is projected to increase by 8 percent by 2050. Passenger growth is expected to continue at approximately 5% average year over year - cargo N/A.

TABLE 12 PASSENGER AND CARGO LEVELS AT PSP

	2000	2001	2002	2003	2004	2005	2006
Passenger (millions)	1.28	1.17	1.11	1.25	1.37	1.42	1.53
Cargo (tons)	N/A	N/A	N/A	113	104	75	27

3. Airport location and acreage

a. Airport location: 33° 49′ north latitude and 116° 30′ west longitude

b. Acreage: 900 acres

4. Runway number and length

a. Runway 13R/31L – 10,000 feet long, 150 feet wide

b. Runway 13L/31R – 4952 feet long, 75 feet wide

5. Terminal square footage and number of gates

a. Bono Concourse 75,000sq.ft., 8 Gates:

b. Main Terminal 100,000sq.ft., 0 Gates after 9/15/07;

c. Regional Concourse 18,000sq. ft., 8 Gates (Completed September 2007)

6. Hours of operation

a. 24 hours a day, 7 days a week

7. Legal or physical capacity constraints

a. None

8. Planned facility and ground access improvements

a. New FAA control tower location search underway, expected completion 2012

b. New consolidated rental car facility is on hold pending master plan

c. New baggage claim processing facility is on hold pending capital improvement review

d. Terminal expansion: all estimates are subject to review when 2003 Master Plan Update is updated again in 2008. No information at this time

PALMDALE REGIONAL AIRPORT (PMD)

1. Role in regional aviation system

a. PMD is located in the Antelope Valley, in the northeast portion of the city of Palmdale, on a 60-acre site on United States Air Force Plant 42. PMD is approximately 60 miles northeast of Downtown Los Angeles off State Highway 14.

b. PMD is one of four airports owned and operated by LAWA, a City of Los Angeles department which also owns and operates Los Angeles International, Ontario International and Van Nuys. PMD serves the Antelope and Santa Clarita Valley areas as a regional airport providing short haul and feeder air service into larger hub airports. PMD is viewed as playing a key role in meeting the future demand for air travel in Southern California.

2. Recent passenger and cargo trends

a. Regional Jet (RJ) Service to San Francisco International began on June 7, 2007 at LA/Palmdale. United Express offers two daily roundtrip regional jet flights to San Francisco International Airport, where travelers can connect to flights serving domestic and international destinations. There was no commercial service at the airport in 2006. About 4,900 passengers used the airport in 2005. No cargo service.

TABLE 13 PASSENGER AND CARGO LEVELS AT PMD

	2000	2001	2002	2003	2004	2005	2006
Passenger	NA	NA	NA	NA	0	4,877	65
Cargo	0	0	0	0	0	0	0

3. Airport location and acreage

a. Location: 34° 37′ 45″ north latitude by 117° 05′ 04″ west longitude

b. Acreage: LAWA currently leases 61.75 acres of land from the United States Air Force (USAF) under a Joint Use Agreement (JUA) that allows civilian operations on Air Force Plant 42 (AF Plant 42). LAWA also owns 17,750 acres adjacent to and to the east of AF Plant 42 available for future development.

4. Runway number and length
   a. Runway 7/25 – 12,002 feet long, 150 feet wide
   b. Runway 4/22 – 12,001 feet long, 150 feet wide
   c. Runway 72/252 – 6,000 feet long, 75 feet wide
5. Terminal square footage and number of gates
   a. The passenger terminal located on leased property on Air Force Plant 42 is 9,000-square feet served by an 11,000-square yard apron for parking civilian aircraft. There are no contact gates. The apron can accommodate up to two narrow body jet aircraft. The former SR Technics aircraft maintenance facility located on Site #9 is owned by LAWA and consists of approximately 312 acres adjacent to A.F. Plant 42 Hours of operation
6. Terminal hours: 8 a.m. to 7 p.m. daily
   a. The terminal is staffed by airport police 24 hours, but is open to the public from 0600-2230, daily.
   b. The control tower is staffed from 0530-2200, daily. Operations do not occur when the tower is closed.
   c. A morning commercial flight will be added departing at 0600 in September so that will extend the hours for commercial operation. LAW is working with the military and FAA to extend the tower hours of operation.
   d. General aviation operations are not allowed at PMD at any time unless they are connected with the military or military contractors on the base.
7. Legal or physical capacity constraints
   a. LAWA's estimate for airfield capacity at PMD is:

   Annual Service Volume (ASV): 225,000

   VFR Hourly Capacity (Operations/Hour): 77

   IFR Hourly Capacity (Operations/Hour): 59

   b. LAWA's Joint Use Agreement with the Air Force currently allows up to 50 commercial operations per day but provides for a process to increase that limit to as high as 400 operations per day with the permission of the military.
8. Planned facility and ground access improvements
   a. Space is available on the 61.75 acre leased site for expansion of the passenger terminal facility and for development of future cargo facilities. There is also land available to the south of the terminal area to expand the leasehold with Air Force approval. The Joint Use Agreement with the U.S. Air Force (USAF) sets forth procedures for the use of AF Plant 42 as a joint military/civilian use airport, defines the level of commercial operations that can take place by domestic civilian operators, and specifies guidelines for the use of the acreage owned by LAWA. The USAF has determined that at least 50 civilian commercial operations per day can be accommodated without detriment to the military mission of AF Plant 42. The JUA allows for incremental growth of operations levels up to 400 civilian operations per day with the approval of the USAF. The lease site itself can be expanded to accommodate at least the 1 Million Annual Passengers forecasted to use the facility in 2030. LAWA is working with the City of Palmdale, the MTA and Caltrans to identify needed ground access improvements. These could include enhanced Metrolink service to the airport. Additional detail on the LA/Palmdale Master Plan is below.
9. LA/Palmdale Regional Airport Master Plan

   LAWA is in the process of developing a new Master Plan for LA/Palmdale Regional Airport (PMD). The purpose of the Master Plan is to analyze the local and regional issues that impact the airport and to address the following considerations: (1) determine the need to develop additional capacity at PMD through 2030, given the airport's current local market area; (2) determine the potential for PMD to play a larger role in the regional aviation system by accommodating demand beyond its market area considering the distance and travel time from the population cen-

ters; and (3) develop a plan that balances airport, economic and community goals in an environmentally sensitive and fiscally responsible manner.

The SCAG 2004 Regional Aviation Plan (RTP) proposes that a share of the total regional passenger and air cargo demand in the future be accommodated at PMD. The 2004 RTP Regional Aviation Plan proposes that PMD could play a significant role in accommodating passenger demand beyond its traditional service area if a high-speed rail system were developed that would allow easy access to PMD from the Los Angeles basin. SCAG also proposes significant changes in the way both the airports and the airlines do business today in order to stimulate growth of airline service at PMD. Many of these proposed changes would require changes in federal regulations regarding the ways that airports can set fees and spend money. With these services implemented, SCAG believes that PMD could attract as much as12.8 MAP by 2030.

Since the ability of the region to fully implement the SCAG Aviation Plan is uncertain at this time, LAWA has forecasted the demand for passenger air services at PMD to be 1.14 MAP by 2030 and has selected this forecast as a basis for master planning. This forecast was based on expected population and employment growth within the airport's traditional service area. The service area primarily covers the Antelope and Santa Clarita Valleys and portions of the San Fernando Valley. The Master Plan forecasts were limited by the existing and forecasted population and employment growth within the airport's defined market area and the isolation of the airport from the regional population center in the general Los Angeles basin.

The PMD Master Plan is being developed in three phases. Phase I, Determination of Airport Requirements, included the collection and documentation of data regarding existing facilities at PMD, other aviation facilities in the region, and the community issues at large; the development of forecasts of aviation demand for the next 30 years; an analysis of existing airport capacity; and a determination of future airport facility requirements.

Phase II, Analysis of Alternative Development Plans, included the formulation of alternative development scenarios for the entire airport site, recommendations for use of land not required for aviation purposes, and an analysis of the local and regional roadway systems affecting PMD.

Phase III, Airport Improvement Implementation Plan, includes a 30-year implementation plan and environmental analyses, the Airport Layout Plan, cost estimates and an Airport Capital Improvement Plan, and a financial implementation strategy.

The Master Plan is currently in the final stages of Phase II, which will end with the completion of a Draft Master Plan. A Notice of Preparation for the environmental documentation was released in January 2005 to collect comments on the proposed plan and any alternatives that should be considered.

Three alternative improvement concepts have been developed to expand PMD facilities to meet the forecasted demand. All alternatives assume that PMD continues to share the AF Plant 42 airfield, but propose expansion of passenger and cargo facilities on and off AF Plant 42. All alternatives also include airside, landside and roadway improvements built in phases keyed to passenger and cargo growth. Improvements will include passenger terminal expansion; additional aircraft gates for passenger and cargo operations; expansion of airside facilities such as aprons and taxiways; expansion of automobile parking lots; construction or expansion of access roads; construction of air cargo facilities; and construction of support facilities.

Alternative 1, the Proposed Action, includes expansion of the terminal and apron within the existing terminal area on AF Plant 42 and development or expansion of additional facilities on AF Plant 42 outside the current leasehold. Alternative 2 includes development of a terminal building, apron and cargo facilities within an area on LAWA property called Site 9, with a connecting taxiway to the AF Plant 42 airfield. Alternative 3 includes development of a terminal building, apron and cargo facilities east of AF Plant 42, entirely on vacant LAWA property. All alternatives

include a commercial/industrial development on LAWA property south of Avenue P. Commercial development of non-aviation property will help finance future infrastructure development.

LAWA is also developing a long-range strategic plan for PMD to show how the airport will accommodate passenger demand beyond 2030 or demand generated by the development of a high-speed rail system to PMD as suggested in the SCAG Aviation Plan in the 2004 RTP. The plan proposes a phased move to LAWA property as passenger volumes approach about 3 MAP. At that point, further investment in expansion on the Plant 42 leasehold would not be cost effective. Phased development of a new airport on LAWA owned property would be initiated, beginning with passenger terminal development. At build-out, the strategic plan will propose an airport that can handle at least the 12.8 MAP suggested by the SCAG plan, with two runways developed on LAWA property and connections to the AF Plant 42 airfield for additional capacity.

SAN BERNARDINO INTERNATIONAL AIRPORT (SBD)

1. Role in regional aviation system
   a. SBD provides an optimal location for air cargo and logistics management for companies conducting businesses in Los Angeles, Southern California, Mexico and the US inter-mountain regions of Denver, Salt Lake City, Las Vegas and Phoenix. Centrally located just 60 miles (96.5 kilometers) east of the Los Angeles International Airport (LAX), SBD is surrounded by major interstate freeways (I-10, I-215 and I-30-/I-210), enjoys an excellent local surface transportation access, is in a congestion-free air corridor and is located within two miles of a major intermodal BNSF Railway facility. SBD is well positioned as a consolidation/distribution center for both air cargo and ground shipments.
2. Recent passenger and cargo trends
   a. No scheduled commercial passenger flights have taken place at SBD since 1998. However, commercial charter operators have utilized SBD (irrespective of the terminal building) during the 2000 – 2005 periods.
   b. In 2002 it was estimated that approximately 12 large all-cargo aircraft used SBD (9 Antonov AN-24's, 2 Boeing 747's and 2 Convair 640's). Specific cargo operation information is not available. In addition, numerous cargo aircraft operate at SBD commonly through the FBO.

TABLE 14 PASSENGER AND CARGO LEVELS AT SBD

	2000	2001	2002	2003	2004	2005	2006
Passenger	249	217	234	1084	206	44	N/A
Cargo (million tons)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SBD: Specific cargo information is not available.

3. Airport location and acreage
   a. Location: 34° 05' 43" north latitude by 117° 14' 06" west longitude
   b. Acreage: Approximately 1,300 acres
4. Runway number and length
   a. Runway 6/24 – 10,001 feet long, 200 feet wide
5. Terminal square footage and number of gates
   a. From 2000 – 2005 SBD was equipped with two passenger gates at its 66,560 square feet terminal building.
6. Hours of operation
   a. SBD is open 24 hours per day, 365 days per year, and a 24 hour prior notification is required for commercial passenger operations
7. Legal or physical capacity constraints
   a. Airfield capacity is affected by:
   - Traffic coordination with other airports
   - High terrain affecting ILS minimums

8. Planned facility and ground access improvements
    a. Widening projects between Waterman and Mt. View Ave. – widen from 2 – 4 lanes between Tippecanoe and Mt. View, adding curbs, sidewalks and lighting
    b. Widening of 3rd and 5th streets from Tippecanoe to Palm
    c. Improvement to shoulder on Victoria, Del Rosa and Sterling Ave. from 3rd to 6th Streets.
    d. A new 4-lane bridge at Mountain View over the Santa Ana River
    e. Extension of Mountain View from Palm Meadow to I-10
    f. Upgrading of Waterman/I-10 and Mill/I-215 interchanges
    g. There is no near term plan for constructing a passenger terminal on the north end of the airfield--the existing terminal is being expanded and refurbished. The cargo terminal construction is listed on the Airport Capital Improvement Plan, but funding has not been programmed.
    h. The airport's air traffic control tower is being refurbished and will be operational in early 2008
    i. 40 new small hangars and a several large hangars on the runway's east side to be constructed

SOUTHERN CALIFORNIA LOGISTICS AIRPORT (VCV)

1. Role in regional aviation system
    a. The Southern California Logistics Airport specializes in goods movement and is a potential world class facility for serving international and domestic air cargo needs. The airport provides ground, air and rail transportation for the "fastest-to-market" delivery. The airport is capable of accommodating both military and commercial aircrafts. The Southern California Logistics Airport facility features two intercontinental runways including a 15,050 foot runway, allowing the heaviest aircraft direct, non-stop access to any destination in the world and a 10,000 foot runway. The air control tower operates 24 hours a day and has emergency response capabilities that are comparable to the world's largest airports.
2. Recent passenger and cargo trends
    a. PAX (military personnel for the National Training Center (NTC) and Twenty Nine Palms) board aircraft on the open ramp through the NTC leasehold.
    b. Cargo was below 1,000 during 2003, 2004, and 2005. Right now it is hovering at around 1,000 tons annually. Signs suggest it will continue to increase.

TABLE 15 PASSENGER AND CARGO LEVELS AT VCV

	2000	2001	2002	2003	2004	2005	2006
Passenger (millions)	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Cargo (million tons)	0.006	0.007	0.001	<0.001	<0.001	<0.001	0.001

3. Airport location and acreage
    a. Location: 34° 35′ 50″ north latitude by 117° 22′ 58″ west longitude
    b. Acreage: 3,000 acres
4. Runway number and length
    a. Runway 17/35 – 15,050 feet long, 150 feet wide
    b. Runway 03/21 – 9,168 feet long, 150 feet wide
5. Terminal square footage and number of gates
    a. Terminal Building is approximately 10,000 square feet
    b. No gates
6. Hours of operation
    a. 24 hours a day, 7 days a week
7. Legal or physical capacity constraints

a. None

8. Planned facility and ground access improvements

   a. A two lane road adjacent to I-15 is being increased to a four lane road which should be completed within a 12 month period.

   b. Construction of additional large maintenance hangars and corporate aircraft hangars.

   c. Construction a new fuel farm within the next 12 months.

   d. Runway 3/21 will be reconstruction within the next couple of years.

Airport Ground Access Element

1. INTRODUCTION/PURPOSE AND NEEDS

In 2007 the SCAG Region served a total of 89.5 million air passengers (MAP), a 15 percent increase over the 77.8 MAP served in 2002, and a doubling of the 44.7 MAP served in 1984. The 2008 Regional Transportation Plan (Preferred Aviation Plan) forecasts 165.3 MAP by 2035, or an 85 percent increase over the next 28 years, which is consistent with past growth trends.

Currently, six active commercial service airports handle the majority of passenger air traffic: Bob Hope, John Wayne, Long Beach, Los Angeles International, Ontario and Palm Springs airports. Limited commercial commuter service also exists at Oxnard and Imperial County airports. Passengers are currently concentrated at the urban airports with LAX serving 69 percent of the regional total. This concentration of demand coupled with increased general (background) traffic demand and airport capacity limitations have produced access problems for passengers and cargo movements.

In an effort to address the competing issues of meeting the air demand need in the Region, recognizing the traffic congestion near airports due to general traffic demand, and increasing air services closer to growth areas, SCAG has developed a 2035 Preferred Aviation Plan. The forecast demand of 165.3 MAP in the Preferred Aviation Plan is allocated to the 10 existing and future air carrier airports as shown in the following table, including Bob Hope (BUR), John Wayne (JWA), Los Angeles International (LAX), Long Beach (LGB), March Inland Port (MAR), Ontario (ONT), Palm Springs (PSP), Palmdale (PMD), San Bernardino International (SBI), and Southern California Logistics (SCL) airports.

TABLE 16 CURRENT (2007) AND 2035 PREFERRED AVIATION AIR PASSENGERS (MILLIONS OF AIR PASSENGERS (MAP))

	BUR	JWA	LAX	LGB	MAR	ONT	PSP	PMD	SBI	SCL	TOT
2007	5.92	9.98	61.90	2.91	0	7.21	1.61	0	0	0	89.53
2035	9.4	10.8	78.9	4.2	2.5	31.6	4.1	6.3	9.4	2.9	160.1

In addition, the 2008 RTP includes a 2035 passenger forecasts for two current commuter airports, Imperial and Oxnard, which were not included in the 2004 RTP. Those airports are forecast to accommodate scheduled air carrier service with passenger levels reaching 2.5 MAP and 1.7 MAP respectively. When those airports are added to the total, a total 2035 forecast for the Preferred Aviation Plan reaches 165.3 MAP. Compared to the 89.53 MAP served in 2035, this forecast represents a 3.0 percent average annual growth rate, which is consistent with actual regional passenger growth from 2001 to 2007.

The 160.1 MAP forecast for the ten current air carrier airports in 2035 is about 10 MAP less than the 170.0 MAP forecast for 2030 in the 2004 RTP. The reasons for this smaller forecast, even though it is five years farther out, include the following:

- Instead of the full inter-regional high-speed regional transport (HSRT) system assumed in the 2004 RTP, only the "Extended IOS" from LAX to San Bernardino International was assumed, with no HSRT segments extending to Palmdale or Southern California Logistics airports.
- At the request of the March Joint Powers Authority, the forecast for March Inland Port was reduced from 8.0 MAP in the 2004 RTP to 2.5 MAP, to be consistent with commercial operational limitations in the base's joint use agreement with the US Air Force.

- At the request of the Burbank-Glendale-Pasadena Airport Authority, the forecast for Bob Hope Airport was reduced from 10.7 MAP in the 2004 RTP to 9.4 MAP, since three remote airport parking positions were no longer assumed (the authority notified SCAG that the land was privately owned and unavailable for future aircraft parking).
- In the 2035 forecast modeling, a slowdown in regional passenger growth since 2003 was reflected, and a doubling of real fuel costs by 2035 was assumed, both of which dampened the forecast of future demand.

As discussed below, the reduced demand forecast for several airports, particularly March Inland Port and Palmdale Airport, also reduced airport-related traffic congestion and need for ground access improvements in and around those airports to alleviate that congestion.

Future air carrier demand will be largely met by utilizing available capacity at suburban airports in the eastern and northern areas of the Region, to make up for capacity constraints at the urban airports. Two suburban airports with little or no existing air carrier operations, Palmdale and San Bernardino International airports will grow to the approximate size of the current Ontario Airport in terms of passengers served. Cooperation between airport authorities is necessary to ensure efficient usage of this available capacity. Using the capacity promoted a decentralized system that relieves pressure on constrained, urbanized airports and the Region's surface transportation infrastructure. Air cargo operations will be similarly decentralized under the 2035 Preferred Aviation Plan.

The Preferred Aviation Plan attempts to distribute long haul and international service to suburban airports to the north and east of the dominant urban airports. Palmdale is one of the targets for this redistribution process. The 2035 Preferred Aviation Plan incorporates the proposed HSRT system, but only the Extended IOS from LAX to San Bernardino International Airport. This report analyzes and identifies the ground transportation improvements and that will be required to achieve an efficient airport ground access system for the 2035 Preferred Aviation Plan. HSRT facilities and issues (e.g., alignments, stations, ridership and access issues) are addressed in other sections of the 2008 RTP.

If the Preferred Aviation Plan is to become a reality, ground accessibility must not be a limiting factor in the efficient operation of the individual airports. Background traffic congestion will continue to grow, and impact several of the 10 commercial air-carrier airports. Therefore, some of the improvements are focused on freeways and interchanges. Other improvements are focused on arterial streets between freeways and airports. Additional improvements are internal to the airports, including roadways, parking, and transit facilities. These needed improvements, in many cases, must work with other projects already accounted for within the RTP. These include the HSRT system, freeway and interchange improvements, transit and other roadway projects.

Since the 2035 individual airport forecasts in the 2008 RTP are very similar to the 2030 forecasts in the 2004 RTP, the ground access project lists are very similar as well. The main difference is that several airports require fewer projects to alleviate forecast congestion because of lower demand forecasts and airport-related ground access congestion as previously noted. Projects that have been deleted from the 2008 RTP ground access project list because they have been completed since the 2004 RTP was issued, or are no longer needed, are summarized by airport later on in this report.

Some of the airport ground access projects identified in this Airport Ground Access Element or portions thereof are contained in the 2008 RTP Constrained Plan project list. Projects not in the Constrained Plan are needed for the efficient operation of these airports in terms in terms of alleviating forecast ground access congestion, but are beyond the current resources of the financially constrained 2008 RTP. They would be subject to further evaluation for potential inclusion in future RTP updates.

2. APPROACH/METHODOLOGY

2.1. PROJECTS NEEDS ANALYSIS AND SELECTION

2.1.1. Introduction

The ground access projects for the 2030 Preferred Aviation Plan were modeled using the

Regional Airport Demand Allocation Model, (RADAM) Version 9.11. This is the latest and most sophisticated version of the model that has been specifically configured to reflect changes that have occurred in the aviation industry and regional airport ground access since September 11, 2001.

The modeling addressed conventional ground access as well as the state-of-the-art HSRT system (Extended IOS), the principal transit feature of the Preferred Aviation Plan. The HSRT system occupies the highest echelon on the airport ground access hierarchy, since it allows for the rapid movement of passengers from constrained urban to unconstrained suburban airports as a central component of the Preferred Aviation Plan's decentralization strategy. The ground access improvements are in addition to HSRT access to airports assumed in the Preferred Aviation Plan.

This ground access effort specifically focused on integrated modeling of the impacts of the Preferred Aviation Plan on future ground access infrastructure including HSRT. Therefore, the improvement projects specifically apply to the Preferred Aviation Plan and are not necessarily relevant or transferable to other airport forecasts.

Finally, the improvement projects were designed to enhance the airport system's ability compete with airports outside of the SCAG region. Enabling air passengers to access their flights in a timely fashion, in a region that faces rapidly increasing traffic congestion on a surface transportation system that connects suburban airports with urban population and employment centers, will be a daunting challenge. The ability to meet this challenge has enormous economic implications for the region--an efficient airport system will be an essential prerequisite for the region to participate in expanding national and global economies of the future. The ground access projects identified in this report, in conjunction with HSRT, were designed to insure the highest efficiency levels for the SCAG airport system as a gateway to domestic and international air passenger markets in the face of mounting ground access congestion.

Study areas were defined in coordination with SCAG staff for all of the existing and future airports. Study area boundaries were based on initial airport traffic projections as well as on opportunities to develop effective improvement projects directly benefiting each of the airports in the Preferred Aviation Plan.

Although discrete study areas were delineated for each of the airports, the analysis did not exclude traffic generated by other airports sharing common roadways. To the contrary, the cumulative effects of all the airports in the system were reflected as additional traffic on shared infrastructure, including HSRT ridership.

2.1.2. Summary of Access Project Needs Analysis and Selection Methodology

2.1.2.1. Integrated Approach to Airport Ground Access

Conventional ground access studies rely on a simple relationship between the existing MAP (million annual passengers) and traffic observed entering and leaving an airport. This number is then applied to the forecasted MAP level of a particular airport to yield future airport traffic in isolation from other airports in the system. This approach lacks the sophistication that is critical to accurately reflecting the vast spectrum of physical airport and behavioral air passenger attributes that affect ground access in an interactive multi-airport system. To overcome this obstacle, the 2035 Preferred Aviation Plan relied on an advanced configuration of the RADAM 9.11 Model for identifying roadway deficiencies and improvement projects.

The modeling of the Preferred Aviation Plan was based on a complex airport system and an intricate set of behavioral assumptions, which could not be ad-

dressed by statistically based models. Therefore, the ground access modeling utilized a model that integrates all aspects of airport operations from arriving aircraft (by aircraft type, engine type, seating and load factor), through the airport runways, gates and terminals, all the way to the nearest cross-streets comprising the passenger's final destination. In essence, this modeling combined airport passenger and truck forecasts with behavioral aspects of passengers, truck surveys, SCAG demographic and background traffic forecasts, and airport portfolios and flight schedules, to generate the resulting airport ground access impacts.

In contrast to individual airport traffic studies, the integrated methodology provides simultaneous modeling of air passenger and cargo traffic generated by all ten air carrier airports in a dynamically interactive ground access system. In this system, traffic from all ten airports competes for capacity of shared infrastructure. For example, traffic associated with SBI, ONT and MAR will simultaneously draw on the capacity of shared local freeways and arterials. Due to its projected size (78.9 MAP) and an exclusive long haul and international flight portfolio, LAX traffic also draws on the capacity of facilities serving other airports in the system.

Most importantly, the integrated approach to ground access allowed for an internally consistent evaluation of projects for all the airports using the same standards, interpretations and platforms for all model inputs and assumptions, including regional aviation forecasts, regional demographics, HSRT, and background and airport traffic. Thousands of modeling calibrations –needed to incorporate air passenger airport and mode choice behavior into the modeling process were based on extensive RADAM databases of over 300,000 domestic and international passenger surveys taken at all air carrier airports in the region since 1993.

One of the advantages of this integrated methodology is its high sensitivity for testing of projects from different perspectives. For example, modeling can quantify how a minor change in a load factor on a single flight, or a change in the ratio of business-to-non-business passengers on the same flight will individually and cumulatively affect traffic at a particular intersection at a given time. Or, conversely, how many passengers will be delayed by congestion at a certain intersection on their way to a specific flight and how that will affect the airplane's departure time and load factor. This sensitivity was highly useful for generating a realistic evaluation and ranking of improvement projects for all airports under the Preferred Aviation Plan.

Previous traffic studies and other information, such as ground counts, generated by local jurisdictions were reviewed. Various aspects of airport ground access were discussed with local officials (including planning staff from cities adjacent to airports) and airport staff to obtain local input and perspectives

All of the assumptions regarding airport facilities and capacities, operational characteristics, market incentives, passenger attributes and high speed rail service to airports associated with the 2035 Preferred Aviation Plan were scrutinized and approved by the SCAG Aviation Task Force (ATF) and the Aviation Technical Advisory Committee (ATAC).

2.1.2.2. Approach to Airport, Background & Connecting Passenger Traffic

The modeling of the Preferred Aviation Plan began with RADAM databases containing a wealth of information on air passengers ranging from their current and historical propensities to fly, airport choice behavior, airport travel routes, historical travel patterns and high-speed train propensities, to regional and international air passenger origins and destinations.

2.1.2.2.1. Technical Approach to Traffic Assignment

In order to achieve consistency with SCAG's transportation planning, total regional traffic (combined airport and background traffic) was imported from the SCAG's regional model into RADAM for the year 2035. Airport trips were deducted from total traffic in the SCAG model to yield background or ambient traffic. This background traffic was then combined in the RADAM model with airport traffic stemming from the Preferred Aviation Plan. As expected, traffic resulting from smaller airports in outlying areas (e.g. SCL) required little in terms of traffic redirection or re-assignment to alternate, less congested airport access routes.

Generally, airport and background traffic integrated well without exceeding roadway capacities and the need for significant re-assignments to alternate routes. This is in contrast to urban airports with congested ground access, which required significant redistribution of both airport and background traffic in the face of unacceptable roadway overloads.

In conventional assignment models, all traffic (background and airport-related) is combined and generically redirected based on a simple re-calculation of exact passenger travel times from a local trip origin to a destination airport. Background and airport trips are treated exactly the same as they are re-assigned from overly congested roadways to alternative routes in an effort to reduce or equalize their travel times. However, RADAM modeling for the 2035 Preferred Aviation Plan specifically accounted for behavioral differences between the various air passenger categories, and applied discrete re-assignment rules to each category.

Different re-assignment rules were applied to residents and non-residents, commuters and non-commuters, frequently flying residents taking short-haul flights, first-time international visitors, etc. This behavioral approach to modeling is necessary to achieve realistic results. For example, first-time international visitors tend to stay on major arterials and freeways providing the most direct access to an airport regardless of congestion, whereas frequently flying, resident business passengers often divert to more indirect routes to avoid traffic choke points. These discrete traffic re-assignments of air passengers, including specific redirection rules, were based on extensive RADAM surveys taken at all air carrier airports in the SCAG region.

2.1.2.2.2. Approach to Deficiency Analysis

In statistically based models, all trips generated by the various land uses are assigned to the roadways even if the roadways are already well over their physical capacity. This results in traffic volumes that are unrealistically high on certain freeways and arterials, often exceeding their physical capacity by more than 50%. In the Preferred Aviation Plan, the modeling shifted some background traffic overloads to alternate routes or off-peak periods, and shifted some background and airport trips to other modes of transportation such as HSRT. In some cases, it even suppressed some discretionary background trips to avoid unrealistically high traffic to roadway capacity ratios.

2.1.2.2.3. Circuitous Airport Travel

Airport traffic is also compounded by another, often ignored phenomenon of air passengers, particularly visitors, getting lost on their way to or from an airport. In some cases, this is due to intuitively confusing roadway signage (i.e., US 101 North and South at the I-405/US 101 interchange6), and in other cases it is due to differences in urban topography compared to other cities, especially in the Far East and Europe. "Lost traffic" adds more indirect and circuitous trips to ground access. To be more realistic, the Preferred Aviation Plan simulated lost travel to airports through a technique called Asymmetric Logic. However, in the future it was assumed that improved airport signage, GPS and other onboard technologies will reduce, although not eliminate, "lost traffic". The regional HSRT system will eliminate some lost travel in the vicinity of airports with direct and convenient connections to airport terminals.

2.1.2.2.4. Route Reliability Approach

Some airports in the region suffer from having only one main access route to and from major demand centers, which can greatly impede their accessibility if that route is subject to high levels of congestion and/or traffic accidents. For example, PMD (forecast of 6.3 MAP in 2035) is served by a single freeway (SR-14) from the south. Should the freeway suffer from significant congestion, as projected, or high closure rates (due to accidents), this will lower PMD's overall passenger forecast (reflected in the forecast for PMD in the 2035 Constrained Scenario of 2.6 MAP). Therefore, the Aviation Task Force approved the assumption that necessary improvements would be made to SR-14 to boost its "route reliability" status in the Preferred Aviation Plan. Unlike the 2004 RTP, the 2008 RTP does not assume HSRT rail access to PMD. However, the 6.3 MAP forecast for PMD in the 2035 Preferred Aviation Plan does assume greatly improved ground access to PMD through planned or programmed projects,

including HOV and transit improvement to SR-14, improvements to SR-118 to the west, and the construction of the High Desert Corridor to the east.

2.1.2.2.5. Connecting Passenger Ground Access Impacts

In conventional ground access studies, connecting passengers are often assumed to remain at the airport and are not accounted for in ground access. The modeling of the Preferred Aviation Plan used RADAM surveys to reflect air passengers who temporarily leave the airport for hotels, restaurants and other local attractions using conventional ground access such as hotel shuttle vans. Furthermore, the modeling showed that more connecting passengers would leave airports by HSRT and then return for their scheduled departure, taking advantage of HSRT's precise schedule and predictable, on-time performance.

Behavioral RADAM modeling also showed that some connecting passengers would extend their stay by catching later flights, with more flights available at future airports under the Preferred Plan, in order to visit local destinations, thereby contributing to local economies.

2.1.2.2.6. On-Site Traffic Surveys

Baseline traffic conditions of airport and background traffic were established based on on-site field surveys using uniform methods and standards for all study areas for the same time periods, as opposed to differentially collected, and sometimes outdated, information from various sources.

Ground counts of combined airport and background traffic were compared with regional model outputs for existing conditions. Differences between actual counts and the Regional Transportation Model outputs were noted and accounted for in the modeling of future background traffic conditions. A number of trip generation counts were also taken at selected land uses (i.e. shopping centers) to develop more realistic background traffic. Selected roadways, intersections and freeway segments were digitally recorded to provide visual augmentation to computer simulations.

2.1.2.3. Technical Summary of the Modeling Sequence

Passengers are generated for each passenger cluster (passenger origin or destination identified by nearest cross streets, 3,200 total in the SCAG Region) based on RADAM surveys, perceived travel times to airports and SCAG demographic data. Air passengers are then allocated to airports based on meeting their expressed travel needs with the combination of airport attributes at each airport such as airport portfolios, available flights, etc. The initial airport attributes are incrementally refined to accommodate specific passenger demands within constraints imposed by the Preferred Plan assumptions (i.e. LAX at 78.9 MAP). Once these refinements are made, specific flights are developed in accordance with the airport system assumptions. Flights are scheduled based on passenger demand, and physical airport parameters (gates, taxiways runways, etc.) consistent with the assumptions approved by the Aviation Task Force.

For arriving passengers, aircraft types, load factors, arrival times, and processing through the terminals (including security, immigrations/customs, etc.) are used to determine when they will embark on the ground access portion of their journey. For departing passengers, discrete time-before-departure characteristics (from the survey database) are used to determine when the different passenger categories (resident, non-resident, etc.) leave for different types of lights (i.e. commuter, short haul). Ground access trips are then generated for each arriving aircraft by passenger category, mode choice and destination within or outside of the region. Truck traffic is based on allocations of tonnage to airports for several air cargo categories (express, freight, mail, e-commerce). Truck traffic is subsequently merged with other traffic (through passenger-car-equivalent/PCE methods).

Air passenger assignments are based on historical RADAM surveys of routes typically taken by the different passenger categories (i.e., business and pleasure) for different types of flights (by haul type) during peak and off-peak hours. For example, assignments for business passengers going on commuter flights are different from all-inclusive tour passengers going on international flights during peak hours. In addition, assignments are based on routes that

were historically favored by passengers going from specific RADAM zones to different airports. Truck assignments are also based on surveys of historical truck travel patterns and take into account differences in truck type and cargo category.

Passenger trips compete for roadway capacity with background and truck traffic. Different categories of air passengers are either retained or diverted from overloaded roadways based on discrete rules. Background trips are re-assigned according to different rules than air passenger or truck trips. Some background traffic is dynamically shifted to alternate routes, to off-peak periods, to other modes of transportation, or in some cases, it is suppressed to avoid unrealistically high overcapacities. Capacity deficiencies are noted and improvement projects developed based on standard engineering methods (ICU's, v/c ratios, etc.) The entire package of projects is then tested to insure that ground access does not cause unacceptable delays to flights, or more importantly, do not change the adopted MAP forecasts for the individual airports.

2.1.2.4. RADAM HSRT Model Methodology

2.1.2.4.1. HSRT Partnership Model

The ground access mode choice is based on a two-fold process, with separate modeling streams for HSRT and conventional ground access. HSRT allocations are not simply shares of total trips, as is the case with conventional models. In these models the total number of trips is run through several mode choice equations, which incrementally split the total number of trips into different modes of transportation such as HSRT. This methodology lacks sufficient sophistication to reflect the unique generation characteristics of HSRT ridership. Surveys of over 126,000 high-speed rail passengers (taken on TGV, ICE and Japanese high-speed-rail systems) confirm that HSRT ridership is based on a wide range of behavioral attributes, which cannot be addressed by conventional mode choice models by simply splitting a fixed number of total trips into several categories. Therefore, the RADAM HSRT Model is a separate, or a so called "partnership model", nested within the overall model architecture where it works in tandem with the rest of the models, rather than as a subordinate model. Because it is a "partnership model", it can be run independently from the RADAM airport, traffic, and economic models. In that capacity, it features its own generation, distribution, and passenger allocation functions (as well as a non-airport passenger allocation function). After being generated, HSRT ridership is then merged with conventional mode choice distributions to produce a more realistic replication of the behavioral aspects of HSRT ridership.

2.1.2.4.2. HSRT Effects on Land Use

As a major transportation advancement, HSRT will significantly impact land use and development due to its superior airport accessibility, on-time performance, reliability, comfort and ability to reach speeds in excess of 180 mph. Companies that rely on air transportation will locate closer to HSRT stations and alignments for reliable and efficient access to airports in the face of mounting regional highway congestion. This will increase HSRT ridership propensities around HSRT facilities. Therefore, land use modeling is a significant function of the RADAM 9.11 model, which generates "catalytic land use configurations" in the vicinity of HSRT stations and alignments. These configurations are specifically quantified in terms of modified population and employment forecasts (by general sic code) for zones around HSRT stations and alignments. A variety of different catalytic land use configurations can be generated in conjunction with existing and future land use patterns. However, the modeling of the Preferred Aviation Plan used the Preferred Plan Forecast for socio-economic input into RADAM and did not specifically address land uses in the vicinity of HSRT stations and alignments.

2.1.2.4.3. HSRT Ridership Generation

In conventional models, HSRT ridership is a simple percentage of a fixed number of total trips based on factors such as comparative costs with other modes of transportation and trip lengths.

In the modeling of the 2035 Preferred Aviation Plan, HSRT ridership was generated from the "bottom up" based on passenger propensities for HSRT ridership derived from an extensive survey database. The generation of HSRT passen-

gers is based on 97,000 surveys in Southern California, identifying historical as well as current propensities for HSRT ridership for 3,200 traffic analysis zones (TAZ's) in the SCAG region. This geographic delineation insures consistency with SCAG's demographic and traffic forecasts, which are based on the same zone system. HSRT ridership is generated through unique equations for each TAZ or selected conglomerations of zones sharing similar attributes. Unlike conventional models, the generation phase of RADAM distinguishes between baseline, induced and catalytic HSRT passenger demand. The modeling of the Preferred Aviation Plan used factors such as route reliability assumptions, integrated airfare/HSRT pricing, perceptions of congestion and travel times as well as sensitivities to on-time performance to more realistically project behavioral attributes affecting induced HSRT ridership. Catalytic passenger demand was reflected in increased HSRT ridership propensities around HSRT stations and alignments.

2.2. GROUND ACCESS PROJECT IDENTIFICATION AND SELECTION

2.2.1. Ground Access Project Development Process

Projects developed for each of the study areas were based on a number of considerations.

However, the overriding goal of these projects was to improve airport access to the highest degree possible to insure high efficiency of the proposed 2035 decentralized airport system and its competitiveness with airports outside of the SCAG region. An overview of the overall airport ground access identification and selection process is depicted in the figure below.

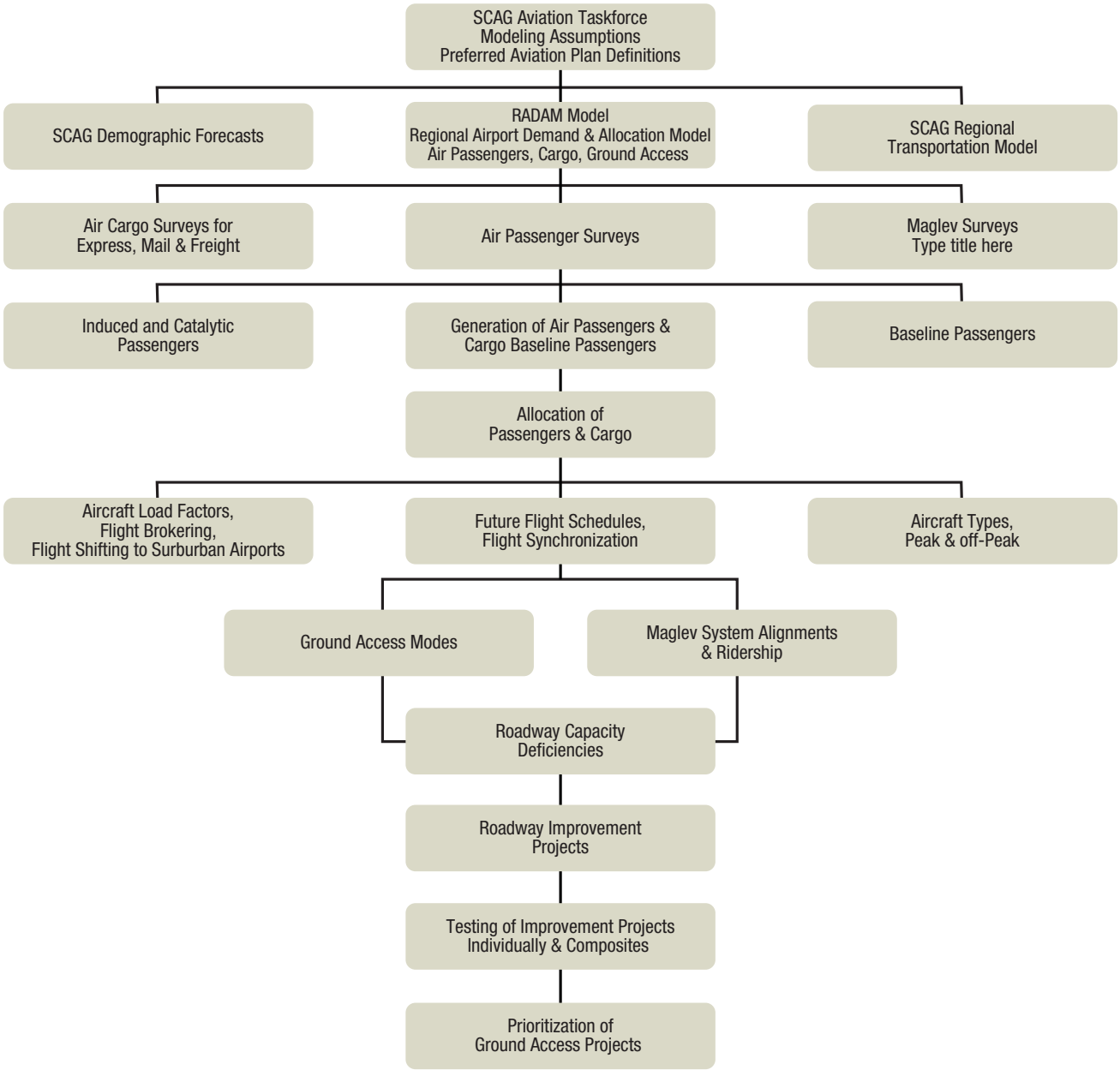
The modeling of the Plan generated air passenger trips for several passenger categories (e.g. business, non-business, inclusive tours, resident, non-resident and part-time resident passengers). Air cargo trips were also generated for different cargo categories including general freight, express, e-commerce, as well as HSRT cargo (express and high-value cargo). Traffic flows generated by the various passenger and cargo trips were used individually and cumulatively to identify roadway capacity deficiencies. The already funded, Baseline projects were included in the 2030 roadway system. The identified improvement projects are in addition to HSRT assumed in the Preferred Aviation Plan.

2.2.2. Approach to Capacity Deficiency Modeling

Projects were based on standard traffic engineering methods and criteria including intersection capacity utilization (ICU), mid-block v/c ratios (as generated the SCAG Transportation Model), freeway weaving area analysis, interchange ramp analysis, passenger-car-equivalents for truck traffic as well as refined (level of service) airport parking demand analysis. Essentially, all these techniques examined the relationship between the forecasted traffic volumes and nominal roadway capacities. The capacities for different roadway categories used in the modeling are consistent with SCAG's regional transportation model.

Efforts were also made to mitigate congestion in the vicinity of airports by providing alternate routes for background and through traffic. For, example, improvements on Imperial Highway would help channel some northbound traffic away from LAX by providing an alternative route to Playa Vista. This would help in reducing congestion on Sepulveda Blvd. in the vicinity of LAX, including the Sepulveda Tunnel. The development of projects for the ten airports was facilitated by the synchronized modeling of airports, flight schedules and HSRT in conjunction with conventional ground access. In synchronized modeling of several airports in the system, ground access times are an important factor affecting airport forecasts in terms of air passenger and cargo demand. Consequently, major ground access improvements could reduce travel times to certain airports and make them more attractive to passengers and cargo. This would result in increased forecasts for airports with substantially improved ground access and reduced forecasts for the remaining airports with fewer ground access improvements. Since the Aviation Task Force adopted specific airport forecasts, as well as the regional total of 165.3 MAP, the improvement projects were balanced to insure consistency with these forecasts and the regional total in the Preferred Aviation Plan. Improvement projects were developed based on (a) severity of capacity deficiency as expressed by volume/capacity ratios; (b) effectiveness in alleviating congestion on principal

OVERVIEW OF GROUND ACCESS PROJECT IDENTIFICATION AND SELECTION PROCESS



ground routes; (c) ability to relieve background and through traffic to free up capacity for air passenger and air cargo truck traffic; and (d) ability to forestall the loss or diversion of passengers and cargo to other competing regions.

3. MODIFICATIONS TO GROUND ACCESS PROJECT LISTS BY AIRPORT

As discussed in section 1 above, the airport ground access project list in the 2008 RTP is very similar to the list in the 2004 RTP since their demand forecasts are also very similar. the are very similar as well. The main difference is that several airports require fewer projects to alleviate forecast congestion because of lower demand forecasts and airport-related ground access congestion. Major projects that have been deleted from the 2008 RTP ground access project list because they have been initiated or completed since the 2004 RTP was issued, or are no longer needed, are summarize below. Also, projects that have been added, deleted or modified compared to the 2004 RTP project list, because of changed priorities as expressed by local officials, are noted as well. Airports not listed below did not have any substantial changes to their ground access project lists from the 2004 RTP to the 2008 RTP.

3.1 BOB HOPE AIRPORT (BUR)

Projects deleted or modified (either initiated, completed or at the request of officials from the City of Burbank):

- BUR 2—Upgrade capacity of Hollywood/Thornton Intersection by adding two additional turning lanes and increased turn lane storage capacity—under design.
- BUR 3—Add one additional lane in each direction on Hollywood Blvd. from San Fernando to Hollywood/Edison—revised to delete lane additions south of Empire
- BUR 5—Upgrade Whitnall/Alameda Intersection (additional turning lanes)—deleted
- BUR 6—Add interchange ramps at Buena Vista and I-5 interchange—deleted
- BUR 7—Construct a modified interchange at Empire and I-5—deleted

Projects added (at the request of officials from the City of Burbank):

- BUR 5—Empire Transit Center—construct a multi-modal bus transit center in the vicinity of Empire Ave. and Hollywood Way adjacent to the BUR Metrolink/Amtrak station
- BUR 6—Construct a Clybourn Ave. grade separation west of BUR to directly connect Vanowen St. to Empire Ave. (to provide continuous arterial from Rte. 5 and new Empire Ave interchange to North Hollywood and improve east-west access in the Golden State area of Burbank)
- BUR 10—Intersection flaring at 35 major intersections for additional turn lanes, including Hollywood Way, Buena Vista St., Victory Blvd., Empire Ave., and Vanowen St. (with no widening of Hollywood Way south of Empire)
- BUR 13-- Extend the MTA Orange Line East from its current terminus at the North Hollywood Red Line Station to Bob Hope Airport. Metrolink Station or Empire Area Transit Center (costs currently unavailable)

3.2 LOS ANGELES INTERNATIONAL AIRPORT (LAX)

Project deleted or modified (either initiated, completed or at the request of officials at Los Angeles World Airports and/or cities of Los Angeles and El Segundo):

- LAX 1—Widen Sepulveda from Manchester to El Segundo to 5 lanes in each direction except for Sepulveda Tunnel—changed from Manchester to Lincoln
- LAX 2—Reconfigure Sepulveda southbound to Imperial westbound off-ramps to three lanes plus an emergency lane--deleted
- LAX 9—Add two additional turning lanes to the Century/Sepulveda intersection--deleted
- LAX 12—Widen Arbor Vitae (from I-405 to Sepulveda) to four lanes in each direction and two left turn lanes at Aviation and Airport intersections—left turn lanes deleted
- LAX 17/26—Widen Sepulveda between Lincoln and Centinela to provide bus/carpool priority lanes--deleted
- LAX 20--From Hughes Terrace to Fiji Way—widen up four lanes in each direction and various intersection improvements—under construction
- LAX 21—From Jefferson Blvd. to Fiji Way—widen from three to four through lanes in each direction, plus a fifth lane in each direction for ramp connect—under construction
- LAX 23—From I-105 to SR 90, add two HOV lanes and sound walls—under construction
- LAX 24—Rosecrans/Aviation intersection—lane additions and bridge widening—completed
- LAX 27—Arbor Vitae from La Brea to I-405—widening from two to four lanes with a left turn lane--completed

Projects added (at the request of officials from Los Angeles World Airports and/or cities of Los Angeles and El Segundo):

- LAX 8—Improve intersection at Aviation and Airport
- LAX 17—Construct Pershing to new West Terminal interchange to a new arterial standard with three lanes in each direction and dual turning lanes
- LAX 26—Add a second left-turn lane northbound and southbound on Centinela
- LAX 27—Grade separation on Douglas between El Segundo to Rosecrans for Green Line

3.3 MARCH INLAND PORT (MAR)

Projects deleted, primarily due to a forecast reduction from 8.0 MAP in the 2004 RTP to 2.5 MAP in the 2008 RTP:

- MAR 5—Widen ramps at I-215/SR 60 interchange

- MAR 13—Add one lane in each direction on Alessandro from Day to Troutwein
- MAR 14—Add two turning lane configuration to Alessandro/Frontage intersection

3.4 ONTARIO INTERNATIONAL AIRPORT (ONT)

Projects deleted, because they have been completed:

- ONT 3—Add two lanes in each direction plus turning lanes on Archibald from Guasti south to I-10 interchange
- ONT 6—Add two lanes in each direction on I-10 from I-15 interchange to Euclid
- ONT 7—Add two lanes in each direction on SR 60 from I-15 to Euclid
- ONT 11—Add WB and EB off-ramps at I-10 and Grove
- ONT 14—Reconfigure and upgrade I-10/Milliken interchange and add one lane in each direction on Milliken from I-10 to airport

Projects added (at the request of official from Los Angeles World Airports and/or City of Ontario)

- ONT 11--North Milliken Ave., railroad grade separation at Airport Drive
- ONT 12--North Grove Ave., railroad grade separation and intersection widening art Airport Drive
- ONT 14—Add one lane in each direction on Guasti Road (east of Haven) and on Euclid (at SR-60)
- ONT 17--SR 60: Upgrade Vineyard interchange, widen Vineyard from 4 to 6 lanes
- ONT 18-- San Antonio Ave. railroad grade separation (Holt-Mission)
- ONT 19— South Milliken Ave railroad grade separation at Mission
- ONT 20— State St. railroad grade separation at Bon View
- ONT 21— Campus Ave railroad grade separation at State
- ONT 22— North Vineyard Ave. railroad grade separation at Holt
- ONT 23— South Archibald Ave. railroad grade separation at Mission
- ONT 24— Interchange Upgrades at Sr. 60 and Mountain; I-10 at Vineyard Ave.; SR. 60 at Archiblad and at Euclid; I-10 at Euclid; Airport and Airport Dr.
- ONT 25— Airport Dr. improvements: Rochester Ave to Wineville Ave., Signalization of Kettering/Airport Dr.
- ONT 26-- Metro Gold Line Light Rail Foothill Extension (cost estimates currently unavailable)

3.5 PALMDALE AIRPORT (PMD)

Projects added (at the request of officials from the City of Palmdale):

- PMD 13—Rancho Vista Bl. (Ave. P)--railroad grade separation at Sierra Highway and Union Pacific/Metrolink line.
- PMD 14—Construct a connector from PMD to Palmdale Transportation Center at Clock Tower Plaza Dr. near Sierra Hwy (which can also serve as a future HSRT station)

3.6 SAN BERNARDINO INTERNATIONAL AIRPORT (SBI)

Projects added (primarily at the request of officials from San Bernardino County and/or the San Bernardino International Airport Authority)

- SBI 10—"New Gateway to SBI" project: construct a four-lane bridge on Mountain View over the Santa Ana River and extension of Mountain View from Palm Meadows Drive to I-10

4. AIRPORT GROUND ACCESS PROJECT LISTS BY AIRPORT

The following table lists recommended airport ground access projects by air carrier airport. A general description of each project is given. Projects that

have been added or modified compared to the 2004 RTP project lists have the designation of "08" attached to their project number.

S.No	Project Description
BUR-1	Upgrade internal BUR terminal area circulation system including ingress/egress to parking facilities.
BUR-3-08	Add 1 additional lane in each direction on Hollywood Bl. (from San Fernando to Empire);
BUR-4	Upgrade capacity of Hollywood/Alameda intersection (additional turning lanes and storage).
BUR-5-08	Empire Area Transit Center: Construct a multi-modal bus transfer center in the vicinity of Empire Ave and Hollywood Way adjacent to BUR Metrolink/Amtrak station.
BUR-6-08	Construct a Clybourn Ave. Grade Separation west of BUR to directly connect Vanowen St. to Empire Ave. (to provide and continuous arterial from Rte. 5 and the new Empire Ave. interchange to North Hollywood and improve east-west access in the Golden State area of Burbank.
BUR-7	Construct a modified interchange at Empire Ave and I-5 interchange. Add N/B and S/B (auxiliary) lanes at I-5/Empire (from Burbank Bl. To Empire)
BUR-8	Add auxiliary lanes on I-5 (from Burbank Bl. To Buena Vista)
BUR-9	Add HOV lanes (from 8-10 lane configuration) on I-5 (from Rte. 134 to Rte. 170)
BUR 10-08	Intersection flarings at 35 major intersections for additional turn lanes. Includes Hollywood Way, Buena Vista St., Victory Bl., Empire Ave., and Vanowen St. (No widening of Hollywood Way south of Empire)
BUR-11	Construct HOV lanes on I-5 (between SR110 and SR14). HOV lanes from Rte. 134 to Rte. 170 only included as part of the Rte. 5 HOV/Empire Ave. Interchange project
BUR-12	Burbank Transit Station project. Improve access, parking and platforms at BUR Metrolink Station. Provide better linkage to the Empire Area Transit Center
BUR-13-08	Extend the MTA Orange Line East from its current terminus at the North Hollywood Red Line Station to Bur. Metrolink Station or Empire Area Transit Center
JWA-1	Improve capacity of JWA terminal internal circulation system. Upgrade SNA-ingress at Michelson/MacArthur intersection.
JWA-2	Construct an internal HSR station roadway system at the Irvine Spectrum (to accommodate 1,510 peak hour vehicle trips).
JWA-3	Add 1 lane in each direction on MacArthur (from I-405 to Michelson).
JWA-4	Add 1 lane in each direction on Michelson (from MacArthur to Von Karman).
JWA-5	Add 1 lane in each direction on I-405 (from Bristol to Rte.133); Add auxiliary lane (from MacArthur to Culver).

S.No	Project Description
JWA-6	Upgrade the Bristol/I-405 interchange (add 1 lane to all on and off-ramps)
JWA-7	Add 1 lane in each direction on SR 55 (from Rte.73 IC to I-405 IC);
JWA-8	Add S/B auxiliary lane (from MacArthur on-ramp to Jamboree Bl. interchange to Culver Dr. off-ramp
JWA-9	Add 1 lane in each direction on Rte.73 (from Jamboree to SR 55); Add auxiliary N/B auxiliary lane to Rte. 73 (from Birch to SR 55)
JWA-10	Upgrade the Sand Canyon/I-405 interchange (add 1 lane to each on and off-ramp).
JWA-11	Add 1 lane to the southbound off-ramp and the north-bound on-ramp at Irvine Center Dr./I-405 interchange
JWA-12	Add 1 N/B ramp and W/B right-turn lane on Paularino at SR 55.
JWA-13	Widen Von Karman overcrossing by 1 lane in each direction.
JWA-14	Add HOV lanes in each direction near SR 55 interchange (98 STIP)

S.No	Project Description
JWA-15	I-405/SR 55 interchange south Transitway existing 4 MF 1 HOV on SR 55 and I-405 existing 5 MF and 1 HOV, add HOV direct Transitway from SR 55 to I-405.
JWA-16	SJHC, 15 mile Toll Road I-5 (in San Juan Capistrano and Rte. 73 in Irvine, existing 3 MF each direction, add 1 MF in each direction, plus auxiliary and PCE traffic climbing lanes (reference: SCAG/TCA MOU 4/5/01).
LAX-1	Widen Sepulveda (from Manchester to Lincoln) to 5 lanes in each direction plus left-turn lanes except for the Sepulveda Tunnel.
LAX-3	Widen Imperial (from Del Mar to Rte. 405 interchange) from 3 to 4 lanes in each direction.
LAX-4	Construct Rte. 105 westbound to Sepulveda northbound off-ramps to 3 lanes plus an emergency lane configuration.
LAX-5	Reconfigure Pershing to a divided major arterial standard with 4 lanes in each direction and turning lanes (from Imperial to Manchester).
LAX-6	Construct major intersection at Imperial and Pershing with 3-lane turning lanes in each direction.
LAX-7	Construct Pershing to new West Terminal interchange to a major arterial standard with 3 lanes in each direction and dual turning lanes.
LAX-8 -08	Improve intersection at Aviation Bl. And Airport Bl.

S.No	Project Description
LAX-10	Widen Aviation (from Arbor Vitae to Century) to 4 lanes in each direction. Widen Aviation from Century to Manhattan Beach Bl. to 3 lanes in each direction.
LAX-11	Upgrade Florence/Rte. 405 interchange. Add 2 lanes to each on-, and off-ramp.
LAX-12	Widen Arbor Vitae (from Rte. 405 to Sepulveda) to 3 lanes in each direction.
LAX-13	Upgrade La Tijera/Sepulveda intersection. Add 1 additional turning lane from southbound La Tijera to southbound Sepulveda and from northbound Sepulveda to northbound La Tijera.
LAX-14	Reconstruct Rte. 405 southbound off-ramp to La Cienega southbound to a major arterial 4-lane standard.
LAX-15	Widen La Cienega from Arbor Vitae to Century Bl. to 3 lanes in each direction.
LAX-16	In Inglewood construct south half of IC on Arbor Vitae.
LAX 17-08	Construct Pershing to new West Terminal interchange to a major arterial standard with 3 lanes in each direction and dual turning lanes.
LAX-18	Add Northbound HOV Lane (over Sepulveda Pass from I-10 US-101. (Southbound HOV from US-101 to Waterford Opened in Feb., 2002; Southbound HOV from Waterford to I-10 is in the Baseline Project ID# LA195900).

S.No	Project Description
LAX-19	Near Marina Del Rey from Hughes Terrace to La Tijera Blvd., Widen from 7 to 8 lanes, Add left Turn Lane, Modify Signals. (2001 CFP 8104). Planned for construction by Caltrans.
LAX-22	Near Marina Del Rey at Culver Blvd. - Overcrossing Demolish Existing Overcrossing & Replace with New 6-Lane Overcrossing with Longer Span - Widen from 4 to 6 Lanes.
LAX-25	Alameda Street from SR-1 to Henry Ford, Widen from 4 to 6 Lanes (CAT2, CFP 2144).
LAX-26-08	Add a 2nd left-turn lane northbound and southbound at Centinela Ave
LAX-27-08	Grade Separation on Douglas (between El Segundo and Rosecrans for Green Line)
LAX–28–08	Additional left-turn lanes on La Cienega (Northbound) and Centinela (Southbound)
LGB-1	Widen Lakewood by 1 lane in each direction (from I-405 to Carson)
LGB-2	Upgrade capacity of lakewood/Wardlow intersection.
LGB-3	Upgrade ramps at Rte. 405 IC/lakewood interchange (Add 1 lane to the S/B lakewood to N/B .Rte.405 on-ramp; Add 1 lane to S/B Rte. 405 to Lakewood Off-ramp.

S.No	Project Description
LGB-4	Widen Wardlow by 1 lane in each direction (from lakewood to Bellflower)
LGB-5	Upgrade Spring Street to 4 lanes (from Orange to Cherry); upgrade Spring/ Lakewood intersection.
LGB-6	Capacity improvements to Rte. 405 including HOV lanes (see LAX Projects)
MAFB-1	Construct connector road from Rte 215/Van Buren interchange east to new March AFB passenger terminal (Divided major arterial configuration, 4 lanes in each direction, including turning lanes, emergency shoulder).
MAFB-2	Construct an internal airport roadway system including airport passenger and employee parking (3 lanes in each direction with double turning lanes).
MAFB-3	Construct internal air cargo terminal 6-lane roadway system including truck parking and ramp access facilities for higher PCE truck traffic movements.
MAFB-4	Reconstruct the Rte 215/Van Buren interchange (3 lane on-, and off-ramp configuration including wide turning lanes for high PCE truck traffic).
MAFB-6	Construct major intersection at Imperial and Pershing with 3-lane turning lanes in each direction.
MAFB-7	Construct Pershing to new West Terminal interchange to a major arterial standard with 3 lanes in each direction and dual turning lanes.

S.No	Project Description
MAFB-8	Upgrade Rte. 215/Cactus interchange (additional turning lane from W/B Cactus to S/B Rte. 215)
MAFB-9	Construct connector between Rte 215/Oleander (Kuder) interchange and new air cargo terminal at MAR AFB (major arterial, capable of higher PCE truck traffic, 3 lanes in each direction).
MAFB-10	Add 2 lanes in each direction on Oleander (from Rte. 215 to Perris).
MAFB-12	Improve Cactus (add 1 lane in each direction from Rte 215/Cactus IC to Perris Bl.)
MAFB-15	Improve Rte 60 (Caltrans: add 2 lanes from 215/60 interchange to Redlands).
ONT-1	Upgrade ONT internal circulation system to accommodate 30 MAP, curbside, parking ingress/egress inclusive.
ONT-2	Construct an internal HSRT station roadway system of 4 lanes in each direction (to accommodate 2,341 peak hour vehicle trips).
ONT-5	Add 2 lanes to on-, off-ramps at I-10/Archibald interchange
ONT-6-08	Construct a Grade Separation at Milliken/Union Pacific Alhambra Line

S.No	Project Description
ONT-7-08	Upgrade SR 60: Grove interchange to 6 lanes
ONT-8-08	Widen Holt by 2 lanes in each direction (from I-10 ramps west City Limits).
ONT-9	Widen Vineyard by 2 lanes in each direction (from Airport to I-10 interchange).
ONT-10-08	Widen Grove by 1 lane in each direction, including turning lanes, (from I-10 to Holt Bl.. Add W/B and E/B off-ramps on I-10 at Grove. Configure all ramps to 3-lane configuration.
ONT-11-08	Grade Separation North Milliken Ave. Rail Grade Separation at Airport Dr.
ONT-12-08	Grade Separation North Grove Ave. Railroad Grade Separation and intersection widening
ONT-13-08	Add 1 lane in each direction on Mission (from Grove to Archibald) and from Archibald to Haven
ONT 14-08	Add 1 lane in each direction on Guasti Road (east of Haven) and on Euclid (at SR 83)
ONT-15	Add 1 lane in each direction on I-15 (from Rte. 60 to I-10).

S.No	Project Description
ONT–17–08	SR 60: Upgrade Vineyard interchange, widen Vineyard from 4 to 6 lanes
ONT-18-08	San Antonio Ave. Railroad Grade Separation (Holt-Mission)
ONT-19-08	South Milliken Ave Railroad Grade Separation at Mission
ONT 20-08	State St. Railroad Grade Separation at Bon View
ONT 21-08	Campus Ave Railroad Grade Separation at State
ONT-22-08	North Vineyard Ave. Railroad Grade Separation at Holt
ONT-23-08	South Archibald Ave. Railroad Grade Separation at Mission
ONT-24-08	Interchange Upgrades at Sr. 60 and Mountain; I-10 at Vineyard Ave.; SR. 60 at Archiblad and at Euclid; I-10 at Euclid; Airport and Airport Dr.
ONT-25-08	Airport Dr. improvements: Rochester Ave to Wineville Ave., Signalization of Kettering/Airport Dr.

S.No	Project Description
ONT-26-08	Metro Gold Line Light Rail Foothill Extension to airport
PMD-1	Construct airport terminal connector road from Ave P to the new PMD passenger terminal
PMD-2	Construct internal airport circulation system based on an 8-lane configuration (with shoulders and emergency lanes) including internal parking facilities).
PMD-3	Widen Ave P to 4 lanes in each direction including turning lanes (from Rte. 14 to 50th St east of PMD). Configure Ave P as a major arterial capable of high PCE truck traffic.
PMD-4	Add on-ramps from W/B Ave P to N/B Rte 14 (2-lane on-ramps with shoulder) capable of carrying higher PCE truck traffic.
PMD-5	Add S/B off-ramp from Rte 14 to Ave P (2-lane off-ramp with shoulder) capable of higher PCE truck traffic.
PMD-6	Improve Ave P intersection capacity at 20th St., 30th St, Sierra and 50th Ave by adding two turning lanes in each direction.
PMD-7	Construct a high capacity intersection at P Ave and 25th St. with 3 lanes in each direction, dual turning lanes, and shoulders.
PMD-8	Add 1 lane in each direction on Sierra (between Palmdale Blvd. and Ave M.

S.No	Project Description
PMD-9	Add 1 lane in each direction on Ave M including turning lanes (from Rte 14 to 50th St)
PMD-10	Widen 50th St. by 2 lanes in each direction (from Ave M to Ave R); improve 50th St/R Ave intersection capacity.
PMD-11	Widen 30th Street (from Palmdale Bl. to Ave P) including 2-lane turning lanes at P Ave.
PMD-12	Add 2 lanes in each direction on Rte. 14 from Pearblossom Hwy to Ave M including HOV lanes (heavy directional AM/PM traffic volumes hampering peak period airport access from LA Basin)
PMD-13-07	Rancho Vista Bl. (Ave P) grade seperation at Sierra Highway/Railroad tracks (Union Pacific & Metrolink) 7th Ranking out of 120 projects by LA County
PMD-14-08	Construct a connector from PMD to Palmdale Transportation Center at Clock Tower Plaza Dr. near Sierra Hwy. (which can serve as a future HSRT station)
PSP-1	Upgrade internal PSP terminal area circulation system including parking facilities (to accommodate 3.2 MAP). Upgrade terminal area ingress/egress from Tahquitz Canyon
PSP-2	Add 1 lane in each direction on Ramon Rd (from Sunrise to El Cielo) to a continuous 4-lane major arterial configuration.
PSP-3	Upgrade El Cielo/Ramon Rd. intersection for higher PCE air cargo truck traffic.

S.No	Project Description
PSP-4	Add 1 lane in each direction on Farrell (from Ramon Rd. to Vista Chino)
PSP-5	Upgrade intersection of Indian Canyon and Tahquitz Canyon Rd
PSP-6	Upgrade 1-10/Date Palm interchange ramps to a 2-lane configuration.
PSP-7	Add 1 additional left and right turning lanes from Tahquitz to Palm Canyon.
PSP-8	Upgrade 1-10/Gene Autry Trail interchange ramps to a 2-lane configuration. modify Gene Autry Trail from 2 to 6 lanes (from 1-10 interchange to Salvia Rd.)
PSP-10	Modify Gene Autry Trail from Salvia Rd. to Vista Chino to a 6-lane configuration.
PSP-11	Construct bridges on Gene Autry Trail at the railroad crossing and at Whitewater River.
PSP-12	Widen Indian Canyon Drive to a 6-lane configuration (from Union Pacific Rail Road to 1-10).
SBI-1	Upgrade internal circulation system to the SBI passenger terminal at Leland Norton Way and Rialto. Construct 6-lane major arterial configuration with double turning lanes and emergency lanes.

S.No	Project Description
SBI-2	Construct a truck traffic access road (4-lane major arterial configuration with shoulder) to the SBI Air Cargo Terminal at Perimeter Road. Upgrade Perimeter Road-3rd Street/Leland Norton Way for high PCE truck traffic.
SBI-3	Add 2 lanes in each direction on Waterman (from 9th Street to Rialto and from Vanderbilt to the I-10 IC).
SBI-4	Upgrade Rialto to a continuous, divided 6-lane configuration (from Waterman to Rte. 215)
SBI-5	Upgrade the I-10/Waterman interchange (add 1 additional on-, and off-ramp in each direction designed for higher PCE truck traffic).
SBI-6	Add 2 lanes in each direction on 3rd Street (from Waterman to Alabama/Palm) to a 6-lane configuration; Construct diagonal 6-lane connection form 3rd Street to 5th Street east of Alabama.
SBI-7	Upgrade 5th Street to a 6-lane major arterial configuration with turning lanes and improved capacity intersections at 3rd Street diagonal connector, Palm, Waterman, and La Rosa.
SBI-8	Upgrade Harry Sheppard Bl. (from Leland Norton Way to Tippecanoe).
SBI-9	Upgrade the Rte. 215/Mill interchange (add 1 lane to each on-, and off-ramp designed for higher PCE truck traffic).
SBI-10-08	New Gateway to SBD project: Construct a 4-lane bridge on Mountain View over the Santa Ana River (extention of Mountain View from Palm Meadows Drive to I-10).

S.No	Project Description
SCL-1	Construct airport terminal connector road from Air Base to terminal building (along Cory to Phantom); Construct connector road from Air Base to air cargo terminal in the southwest corner of the base.
SCL-2/3	Improve and upgrade existing internal circulation system (Cory from base to Phantom; Cory segment from Starfighter to Sabre; intersection Worley/Phantom) including access to on-site HSRT terminal
SCL-4	Widen Air Base (add 2 lanes in each direction from U.S. 395 to National Trails intersection)
SCL-5	Add 2 lanes to southbound on-ramps and northbound off-ramps at I-15/National Trails IC. Add 1 additional lane to southbound off-ramps and northbound on-ramps at I-15/National Trails IC.
SCL-6	Add 2 additional turning lanes in each direction on National Trails at I-15.
SCL-7	Improve National Trails/Air Base intersection in conjunction with National Trails/Rancho intersection (part of Construction of Rancho extension project from Adelanto to National Trails)
SCL-8	Add 1 lane in each direction to National Trains from I-15 to Barstow.
SCL-9	Widen National Trails/RR underpass (approx. 3.49 mi north of Air Base) to 2 lanes in each direction.
SCL-10	Add N/B mixed flow lane w. aux lane (from N/) Mojave Dr. IC to Stoddard Wells Rd.

S.No	Project Description
SCL-11	Construct 6 lane freeway (at I-15/SR395) JCT t0 S/O Framington Rd.) from SR 18 to Purple Sage plus 4lane expressway from Purple Sage to Framington
SCL-12	Widen El Evado Rd, Palmdale Rd to Air Base Rd., Palmdale to Hopland, Hopland to Air Base (from 2 to 4 lanes with LT lanes)



SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2008
RTP
REGIONAL TRANSPORTATION PLAN

Making the Connections

Transportation Safety Report

TRANSPORTATION SAFETY

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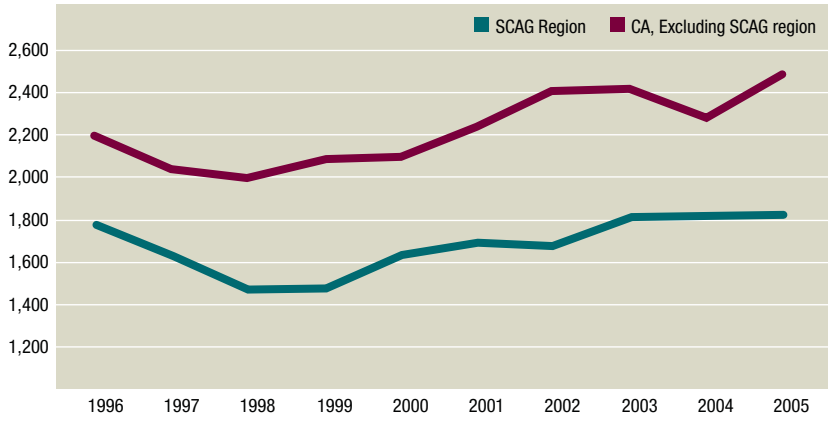
Existing Conditions

The SCAG region has an extensive transportation system with over 50,000 freeway and arterial lane-miles. The region had 10.7 million licensed drivers and 13 million registered vehicle in 2005. The same year, over two million people rode public transit daily. Unfortunately, in the SCAG region, 1,825 people were killed and 149,811 were injured in traffic collisions.

Deaths and injuries from traffic accidents are significant concerns for the SCAG region. In 2005, just over 1,800 people in the SCAG region were killed in traffic accidents. In California, 4,304 were killed in 2005 as indicated in Figure 1 and Figure 2.

In addition, as can be see in Figure 2, traffic injuries in the SCAG region surpassed the state in 2002.

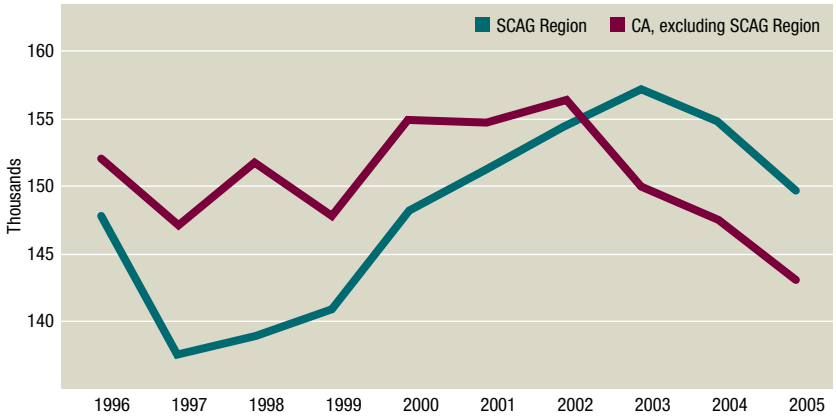
FIGURE 1 TRAFFIC FATALITIES (1996-2005)



Source: SWITRS

While traffic fatalities in the SCAG region are below the rest of California (the SCAG region represents almost half of California's population), the number of fatalities, after declining in the latter part of the 1990s, has increased every year since 1999. Table 1 and Table 2 indicate, by county, the traffic fatalities and injuries in the SCAG region.

FIGURE 2 TRAFFIC INJURIES 1996-2005



Source: SWITRS

Consequences of Accidents in the SCAG Region

While much of the growth in fatalities and injuries can be attributed to the growth in vehicle miles traveled, it represents an unacceptable personal burden on those involved. There is also a regional burden in lost productivity, increased traffic congestion and pollution.

The National Safety Council reports that the calculable costs of motor-vehicle crashes are wage and productivity losses, medical expenses, administrative expenses, motor vehicle damage, and employers' uninsured costs.

TABLE 1 TRAFFIC FATALITIES (1996-2005)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Imperial	35	65	62	35	55	45	49	45	56	46
Los Angeles	863	764	624	684	749	768	728	816	750	745
Orange	197	175	157	175	164	207	193	215	215	205
Riverside	278	253	269	231	266	262	312	303	321	333
San Bernardino	333	312	300	297	318	334	334	357	409	425
Ventura	71	61	58	59	87	73	66	79	70	71
SCAG Region	1,777	1,630	1,470	1,481	1,639	1,689	1,682	1,815	1,821	1,825
California, excluding SCAG region	2,195	2,041	1,989	2,078	2,091	2,237	2,407	2,410	2,273	2,479

Source: SWITRS

TABLE 2 TRAFFIC INJURIES (1996-2005)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Imperial	1191	1212	1313	1264	1172	1324	1219	1231	1159	1040
Los Angeles	91540	82096	82218	83978	88801	91443	92744	92557	90042	86582
Orange	22326	22611	23070	22780	22996	23043	22782	24173	23917	23028
Riverside	11216	10941	11358	11752	12968	12700	14291	15105	15805	15966
San Bernardino	15408	14695	14743	15255	15786	16107	16517	17022	17299	16929
Ventura	6274	6096	6167	5912	6418	6646	6892	7085	6587	6266
SCAG Region	147955	137651	138869	140941	148141	151263	154445	157173	154809	149811
California Excluding SCAG Region	152151	147220	151829	147786	154882	154644	156244	149993	147548	142987

Source: SWITRS

The average costs for each traffic death, traffic injury, or property damage crash were (in 2005):

Death	$1,150,000
Nonfatal Disabling Injury	$52,900
Property Damage Crash (including nondisabling injuries)	$7,500

In addition, for 2005, the National Safety Council further defined injury costs as[1]:

Incapacitating injury	$60,500
Nonincapacitating evident injury	$19,600
Possible injury	$11,100

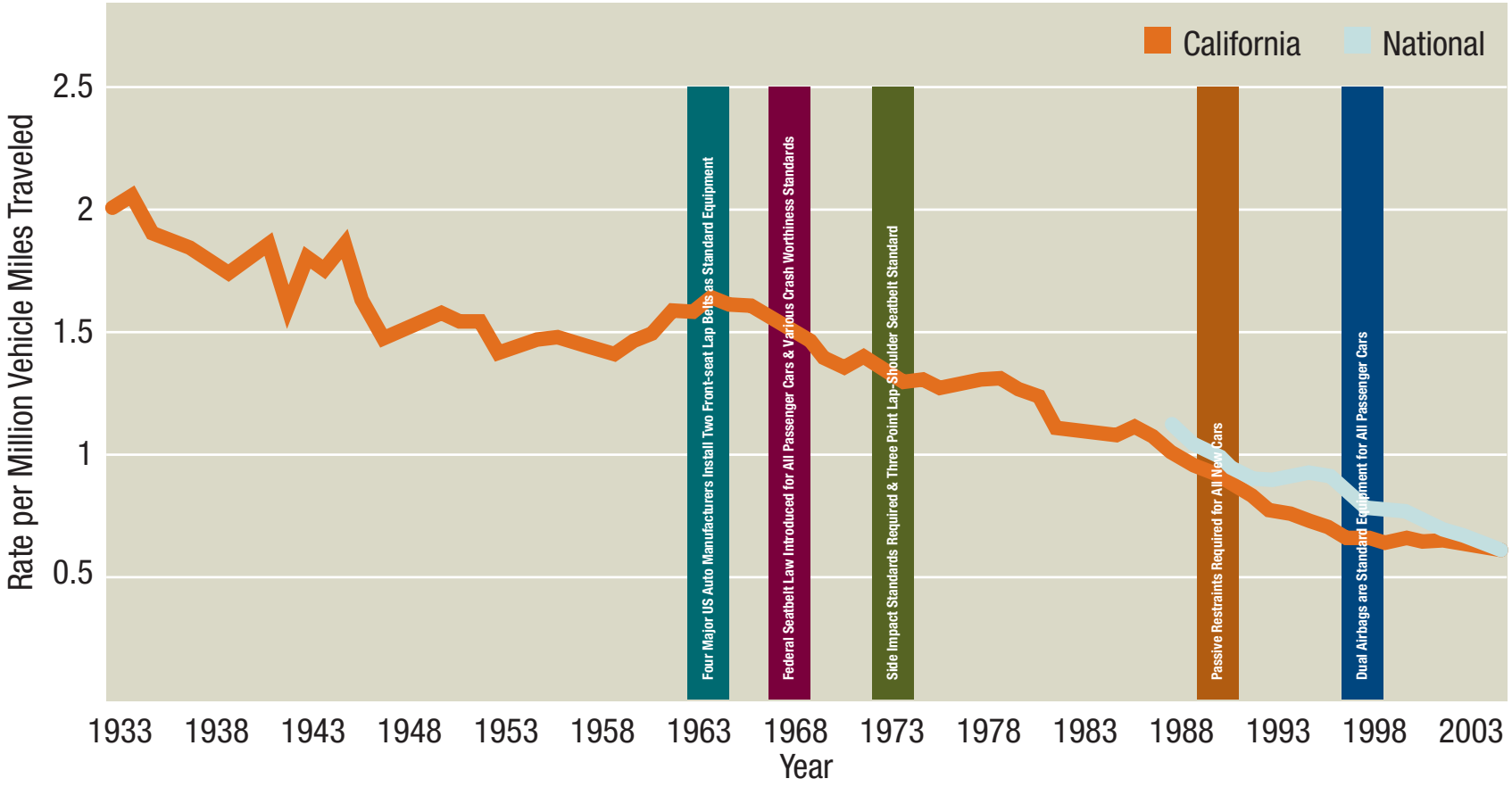
When examined historically, fatal and injury collisions (rate per million vehicle miles traveled) have steadily decreased in California since the 1930s. It is only recently that national rates have fallen to the same rate as California, although it should be noted that comparable national statistics have only been collected since the latter 1980s.

[1] National Safety Council "Estimating the Costs of Unintentional Injuries, 2005 "http://www.nsc.org/lrs/statinfo/estcost.htm

Figure 3 indicates the historical drop since the 1930s. In addition, the chart is marked to indicate the time periods when safety devices were introduced or mandated in the United States.

It is important to note, that although the fatal and injury collision rate per million vehicle miles traveled has decreased, the number of vehicle miles traveled is increasing. The 2008 RTP forecasts that Vehicle Miles Traveled (VMT) will increase to 552 Million VMT in 2035. This represents a 35% increase over the existing 409 million VMT.

FIGURE 3 FATALITY AND INJURY COLLISIONS



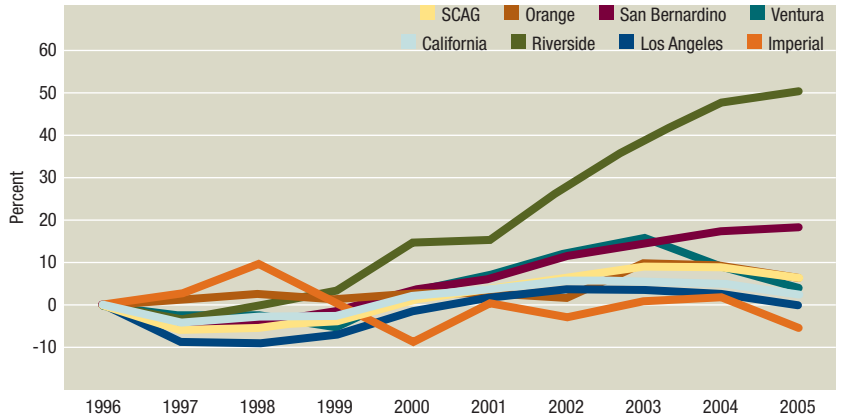
Sources: 1) California Highway Patrol, 2005 Annual Report of Fatal and Injury Motor Vehicle Traffic Collisions; 2) National Traffic Safety Administration, Traffic Safety Facts 2005

Figure 4 indicates an increase in the number of fatal and injury collisions in the SCAG region since 1996, particularly in the Inland Empire, where VMT has increased at a faster rate then other parts of the region.

However, a reduction in the accidents per million VMT, while laudable, does not necessarily eliminate an increase in accidents, in absolute numbers.

The goal of this safety report is to assist in the reduction of the absolute numbers of traffic fatalities and injuries within the SCAG region to the goals indicated in the California Strategic Highway Safety Plan.

FIGURE 4 GROWTH IN FATALITY AND INJURY COLLISIONS SINCE 1996



Source: California Highway Patrol, 2005 Annual Report of Fatal and Injury Motor Vehicle Traffic Collisions

Primary Causes of Collisions

Table 3 and Table 4, on the next two pages indicate the number of fatal and injury collisions, respectively, in California in 2005, sorted by the movement preceding the collision. In reviewing the data, the predominant fatal collision type is a broadside collision where the preceding movement was the vehicle proceeding straight.

For injury accidents, the broadside collision described above also predominates, closely followed by rear end collisions where the preceding movement was the vehicle proceeding straight. With other factors taken into account, such as other movements preceding collision, rear end collisions are the most common type of accident, with 142,278 injury accidents in 2005. Broadside collisions followed with 111,369 injury collisions, representing 39% and 30% of all injury accidents respectively.

Per SAFETEA-LU, SCAG's RTP should be consistent with the California Strategic Highway Safety Plan (SHSP), which is discussed on the following pages. In research for the SHSP, the data indicates that intersections and turns/rights of way are significant factors in many collisions within the various challenge areas (drunk driving, elderly drivers, bicycling, etc.). By placing the highest emphasis on intersection safety within each challenge area, SCAG hopes to meet the goals of the SHSP to reduce transportation fatalities as well as increase transportation safety in the region.

TABLE 3 DRIVERS IN FATAL COLLISIONS IN CALIFORNIA BY TYPE OF COLLISION BY MOVEMENT PRECEDING COLLISION (2005)

	COLLISION TYPE								
	Head-On	Sideswipe	Rear End	Broadside	Hit Object	Overturned	Auto/ Pedestrian	Other	TOTAL
Movement Preceding Collision									
Proceeding straight	543	239	366	988	301	130	576	69	3,212
Ran off road	14	8	14	10	462	185	7	10	710
Other	1	23	22	11	179	72	6	4	318
Making left turn	25	7	2	238	5	7	30	2	316
Crossed into opposing lane	202	31	2	31	5	7	1	3	282
Other unsafe turning	27	12	10	12	90	49	8	1	209
Stopped	9	4	123	46	4	4	13	5	208
Changing lanes	2	37	27	5	17	13	10	2	113
Slowing/stopping	10	4	50	6	2	5	6		83
Passing other vehicle	32	15	5	10	10	7	3		82
Entering traffic		1	2	43	2	1	4	1	54
Traveling wrong way	46	1		2	2	1	1		53
Making right turn	2	2	1	10	6	3	26	1	51
Not stated	5		3	14	4	1	7	3	37
Making U turn		1		18	2				21
Backing			2	1	2		11	2	18
Merging			1		1	2			4
Parked*			2				1		3
TOTAL	918	385	632	1,445	1,094	487	710	103	5,774

Source: SWITRS

TABLE 4 DRIVERS IN INJURY COLLISIONS IN CALIFORNIA BY TYPE OF COLLISION BY MOVEMENT PRECEDING COLLISION (2005)

	COLLISION TYPE								
	Head-On	Sideswipe	Rear End	Broadside	Hit Object	Overturned	Auto/ Pedestrian	Other	TOTAL
Movement Preceding Collision									
Proceeding straight	11,855	17,964	66,063	69,238	10,472	3,666	6,022	3,458	188,738
Stopped	1,151	1,833	49,491	4,217	220	86	240	511	57,749
Making left turn	5,922	2,086	1,274	24,602	816	331	1,794	919	37,744
Slowing/stopping	157	555	17,878	511	228	210	139	213	19,891
Ran off road	283	185	198	158	7,562	2,838	56	161	11,441
Making right turn	621	1,260	1,487	3,508	551	194	1,630	649	9,900
Changing lanes	70	4,866	2,441	693	1,062	426	23	156	9,737
Other	79	1,094	619	455	4,976	1,353	62	91	8,729
Entering traffic	196	602	292	3,857	84	67	154	183	5,435
Other unsafe turning	262	620	556	349	2,169	863	59	79	4,957
Making U turn	126	279	152	1,931	68	42	32	64	2,694
Crossed into opposing lane	1,327	625	43	283	167	80	12	29	2,566
Not stated	95	182	710	390	149	47	131	288	1,992
Backing	41	110	489	457	84	19	490	265	1,955
Passing other vehicle	139	704	175	457	144	97	60	42	1,818
Traveling wrong way	276	97	11	96	55	11	9	15	570
Merging	14	188	192	76	42	23	10	17	562
Parked*	25	126	137	43	17	2	15	49	414
Parking maneuver	10	65	70	48	21	6	32	9	261
TOTAL	22,649	33,441	142,278	111,369	28,887	10,361	10,970	7,198	367,153

Source: SWITRS

The California 2006 Annual 5 Percent Report

SAFETEA-LU establishes a new core Highway Safety Improvement Program (HSIP) structured and funded to reduce fatalities on all public roadways. A provision of the new HSIP requires all states to submit an annual report to the Federal Highway Administration (FHWA) by August 31 of each year describing not less than 5 Percent of their public roadway locations exhibiting the most severe safety needs. At the time of this report, the 2007 5 Percent Report had not been published. So the 2006 report will be used.

From the California 2006 Annual 5 Percent Report:[2] the California 2006 Annual 5 Percent Report is not intended to be used as a tool for the allocation of funding for, or prioritization of, State roadway safety projects.

The California Annual 5 Percent Report serves to:

- Satisfy the Highway Safety Improvement Program (HSIP) reporting requirement.
- Raise public awareness of the safety needs and challenges in the State.
- Raise awareness of the importance of traffic safety data.

The locations identified in the 2006 Annual 5 Percent Report are based on available roadway and collision data for the State Highway System only (city and county roadway locations are not included for the 2006 report).

Areas of the 2006 5 Percent Report that are located in the SCAG region are delineated on Table 5 on the following page, as well as graphically represented in Exhibit 1. It is important to note that under 23 U.S.C. 148(g)(4) information collected or compiled for any purpose directly relating to the 5 Percent Report shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports.

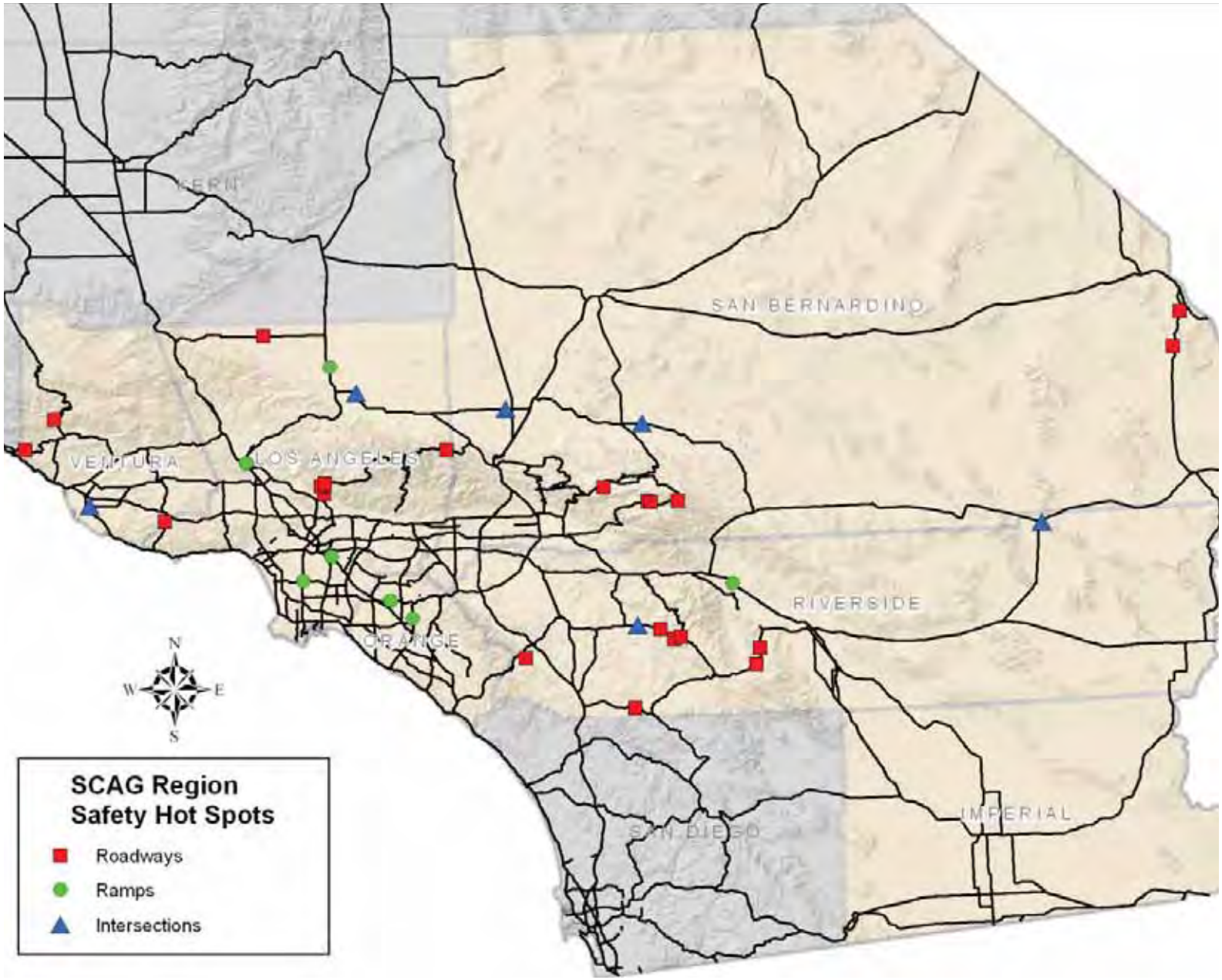
[2] http://safety.fhwa.dot.gov/fivepercent/06ca.htm

TABLE 5 SCAG ROADWAY, INTERSECTION, AND RAMP LOCATIONS (STATE HIGHWAY SYSTEM ONLY)

SCAG Roadway Locations (State Highway System only)			SCAG Intersection Locations (State Highway System only)		
County	Rte	Postmile	County	Rte	Postmile
Los Angeles	2	026.838 TO 027.038	Los Angeles	138	48.961 AVE R RT
Los Angeles	2	029.538 TO 029.738	Riverside	62	84.965 DESERT CTR-RICE-
Los Angeles	2	031.267 TO 031.467	Riverside	74	44.404 NEW CHICAGO AVE
Los Angeles	2	031.467 TO 031.667	San Bernardino	18	102.475 VERBENA RD - RT
Los Angeles	2	080.874 TO 081.074	San Bernardino	247	39.598 CAMP ROCK RD/EAST
Los Angeles	138	022.162 TO 022.362	Ventura	34	5.295 ROSE AVE
Riverside	74	010.313 TO 010.513			
Riverside	74	050.100 TO 050.300	SCAG Ramp Locations (State Highway System only)		
Riverside	74	056.780 TO 056.980	County	Rte	Postmile
Riverside	74	058.922 TO 059.122	Los Angeles	5	13.069 005/SB OFF TO
Riverside	74	083.193 TO 083.393	Los Angeles	14	R 25.056 014/SEG SB TO WELDON CYN RD
Riverside	74	089.695 TO 089.895	Los Angeles	14	R 25.095 014/SEG NBON FR SIERRA HWY
Riverside	79	006.389 TO 006.589	Los Angeles	14	R 65.886 014/SB OFF TO AVE L
San Bernardino	18	038.140 TO 038.340	Los Angeles	110	13.765 110/NB OFF TO TRANSIT STATION
San Bernardino	38	029.509 TO 029.709	Orange	55	13.921 055/SB OFF WB
San Bernardino	38	030.329 TO 030.529	Orange	91	3.268 091/SEG EB CONN FRONTAGE RD
San Bernardino	38	037.483 TO 037.683	Orange	91	3.502 091/SEG WB CONN FRONTAGE RD
San Bernardino	95	042.407 TO 042.607	Riverside	10	35.853 010/EB OFF TO GENE
San Bernardino	95	051.414 TO 051.614	San Bernardino	15	40.683 015/NB ON FR RTE
Ventura	23	000.940 TO 001.140			
Ventura	33	016.408 TO 016.608			
Ventura	150	001.599 TO 001.799			

Source: 2006 California Annual 5 Percent Report

EXHIBIT 1 SCAG SAFETY HOT SPOTS



Source: 2006 California Annual 5 Percent Report

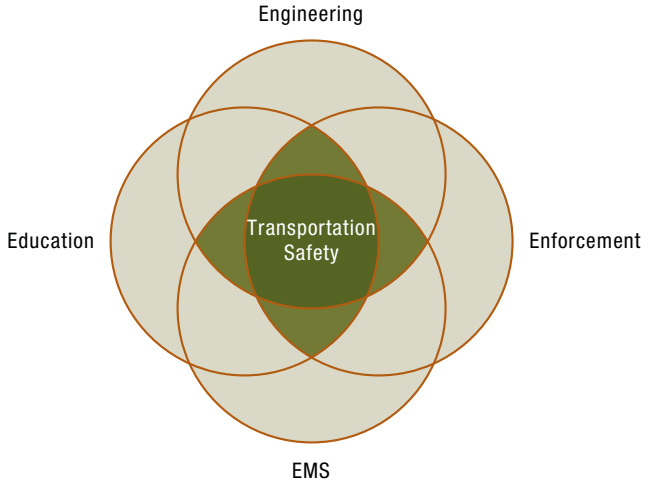
CALIFORNIA STRATEGIC HIGHWAY SAFETY PLAN

In 2005, the Safe, Accountable, Flexible, Efficient Transportation Efficiency Act, A Legacy for Users (SAFETEA-LU) was passed. The legislation stated that each state should develop a Strategic Highway Safety Plan (SHSP) and that all metropolitan long range transportation plans should be consistent with the SHSP.

It is a logical progression from integrating safety into individual projects to coordinating safety utilizing not just engineering, but other methods in order to maximize transportation safety.

When addressing transportation safety, the four Es are frequently referenced to describe the multidisciplinary nature of transportation safety planning. The four Es are Engineering, Education, Emergency Medical Services (EMS), and Enforcement. The area in which planners have the most ability to effect change is likely to be engineering and the development of physical improvements to the transportation system.[3]

FIGURE 5 THE FOUR "E" ELEMENTS



Source: California Strategic Highway Safety Plan

However, a fifth E should be included. That E, called Evaluation, should monitor and review the effectiveness of the other four Es, allowing modifications where applicable.

[3] Transportation Planner's Safety Desk Reference, Report No. FHWA-HEP-07-005

The California draft SHSP lists 16 challenge areas designed to reduce accidents, fatalities and injuries. The 16 challenge areas and resultant strategies were developed during several workshops held by the California Department of Transportation (Caltrans) for various stakeholder agencies in both northern and southern California. SCAG participated in the workshops. Each Challenge Area contains the following elements:

1. Establishment of a goal for improving safety by 2010.
2. Background information on the Challenge Area including a history of fatalities from 1995 – 2004.
3. Strategies being considered for implementation to achieve the Challenge Area goal.
4. Institutional and other issues that could affect the success of the implementation.

Challenge 1: Reduce Impaired Driving Related Fatalities

Challenge 2: Reduce the Occurrence and Consequence of Leaving the Roadway and Head-on Collisions

Challenge 3: Ensure Drivers are Licensed and Competent

Challenge 4: Increase Use of Safety Belts and Child Safety Seats

Challenge 5: Improve Driver Decisions about Rights of Way and Turning

Challenge 6: Reduce Young Driver Fatalities

Challenge 7: Improve Intersection and Interchange Safety for Roadway Users

Challenge 8: Make Walking and Street Crossing Safer

Challenge 9: Improve Safety for Older Roadway Users

Challenge 10: Reduce Speeding and Aggressive Driving

Challenge 11: Improve Commercial Vehicle Safety

Challenge 12: Improve Motorcycle Safety

Challenge 13: Improve Bicycling Safety

Challenge 14: Enhance Work Zone Safety

Challenge 15: Improve Post Crash Survivability

Challenge 16: Improve Safety Data Collection, Access, and Analysis

It should be noted that Caltrans is developing implementation plans for each challenge area. The implementation plan will not be finalized until after this RTP is completed. There may also be some minor revisions to the strategies developed at the workshops.

Once the SHSP Implementation Plan is finalized, each strategy will have specific implementation steps that are prioritized based on potential effectiveness and cost.

SCAG, as a planning agency, can work with local agencies on incorporating some of the challenge areas into their project submissions. Projects outside of SCAG's purview can be supported through cooperation with local law enforcement, emergency service providers and education agencies as they address these safety challenges. Table 6 outlines SCAG's role in incorporating the SHSP into the RTP.

This report will focus on those areas within SCAG's designated role as a transportation planning agency. Data used in this section were collected by the SHSP Challenge Area Teams, and their conclusions are noted in italics.

In addition, Table 7 examines the overlapping of factors between each challenge area. For example, drunk driving was a factor in 7.8% of all intersection crashes, but intersections were a factor in 21% of all impaired driving fatalities.

TABLE 6 SAFETEA-LU STATES THAT THE REGION'S PLANNING PROCESS SHOULD BE CONSISTENT WITH THE CALIFORNIA STRATEGIC HIGHWAY SAFETY PLAN

SHSP Challenge Area	RTP Discussion	Regional Response
2. Reduce the Occurrence and Consequence of leaving the roadway and head-on collisions	In Safety Chapter	a) Identify projects that address safety in designated "hot spots" b) Encourage transportation projects that specifically enhance safety or complement education, enforcement or EMS for each challenge area. c) Request RTP project submissions identify the portion of the project that is applied to safety and/or challenge area, including funding.
5. Improve Driver Decisions about Rights of Way and Turning		
7. Improve Intersection and Interchange Safety for Roadway Users		
8. Make Walking and Street Crossing Safer		
9. Improve Safety for Older Roadway Users		
11 Improve Commercial Vehicle Safety		
13. Improve Bicycle Safety		
1. Reduce Impaired Driving Related Fatalities	Outside of SCAGs RTP role	d) Endorse Cooperation with State and local law enforcement, emergency response and education agencies as they address these transportation safety challenges. e) Work with the State and county transportation commissions to determine if various project submissions have potential benefit to safety in these challenge areas.
3. Ensure Drivers are Licensed and Competent		
4. Increase Use of Safety Belts and Child Safety Seats		
6. Reduce Young Driver Fatalities		
10. Reduce Speeding and Aggressive Driving		
12. Improve Motorcycle Safety		
14. Enhance Work Zone Safety		
15. Improve Post Crash Survivability		
16. Improve Safety Data Collection, Access and Analysis		

Source: SWITRS

TABLE 7 OVERLAP FOR SHSIP CHALLENGE AREAS (INJURY COLLISIONS FOR SWITRS 2003-2005) (SEE NOTES BELOW FOR INTERPRETATION)

Target area		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Area 1 – Reduce Impaired Driving Fatalities	N	70,691	17,166		9,806	5,579	12,029	14,845	5,460	3,803	6,524	2,533	2,773	2,541	834
	%	100.0	24.3		13.9	7.9	17.0	21.0	7.7	5.4	9.2	3.6	3.9	3.6	1.2
Area 2 – Reduce Leaving Roadway and head-on Coll.	N	17,166	78,929		9,142	20,158	19,508	19,072	1,726	7,664	11,090	2,761	4,219	1,910	597
	%	21.7	100.0		11.6	25.5	24.7	24.2	2.2	9.7	14.1	3.5	5.3	2.4	0.8
Area 3 – Ensure Licensed and Competent Drivers															

Target area		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Area 4 – Increase Safety belt and Child Safety Restraint Usage	N	9,806	9,142		36,960	8,644	9,349	9,325	401	3,045	8,301	3,087	895	684	469
	%	26.5	24.7		100.0	23.4	25.3	25.2	1.1	8.2	22.5	8.4	2.4	1.9	1.3
Area 5 – Improve Driver Decisions re: Rights of Way and Turning	N	5,579	20,158		8,644	110,295	26,962	10,703	2,269	10,024	0	8,858	7,194	4,677	1,625
	%	5.1	18.3		7.8	100.0	24.4	9.7	2.1	9.1	0.0	8.0	6.5	4.2	1.5
Area 6 – Reduce Young Driver Fatalities	N	12,029	19,508		9,349	26,962	147,860	49,376	8,220	10,417	47,810	4,231	4,137	6,870	1,765
	%	8.1	13.2		6.3	18.2	100.0	33.4	5.6	7.0	32.3	2.9	2.8	4.6	1.2
Area 7 – Improve Intersection and Interchange Safety	N	14,845	19,072		9,325	10,703	49,376	191,000	12,767	29,751	20,729	5,977	5,511	12,547	1,494
	%	7.8	10.0		4.9	5.6	25.9	100.0	6.7	15.6	10.9	3.1	2.9	6.6	0.8
Area 8 – Make Walking and Street Crossing Safer	N	5,460	1,726		401	2,269	8,220	12,767	40,857	7,564	2,460	1,149	109	126	304
	%	13.4	4.2		1.0	5.6	20.1	31.2	100.0	18.5	6.0	2.8	0.3	0.3	0.7
Area 9 – Improve Safety fir older Roadway Users	N	3,803	7,664		3,045	10,024	10,417	29,751	7,564	76,446	22,175	3,045	1,871	3,435	1,057
	%	5.0	10.0		4.0	13.1	13.6	38.9	9.9	100.0	29.0	4.0	2.4	4.5	1.4
Area 10 – Reduce Speeding and Aggressive Driving	N	6,524	11,090		8,301	0	47,810	20,729	2,460	22,175	191,746	10,394	8,857	1,880	3,696
	%	3.4	5.8		4.3	0.0	24.9	10.8	1.3	11.6	100.0	5.4	4.6	1.0	1.9
Area 11 – Improve Commercial Vehicle Safety	N	2,533	2,761		3,087	8,858	4,231	5,977	1,149	3,045	10,394	30,425	556	520	747
	%	8.3	9.1		10.1	29.1	13.9	19.6	3.8	10.0	34.2	100.0	1.8	1.7	2.5
Area 12 – Improve Motorcycle Safety	N	2,773	4,219		895	7,194	4,137	5,511	109	1,871	8,857	556	27,354	54	381
	%	10.1	15.4		3.3	26.3	15.1	20.1	0.4	6.8	32.4	2.0	100.0	0.2	1.4
Area 13 – Improve Bicycle Safety	N	2,541	1,910		684	4,677	6,870	12,547	126	3,435	1,880	520	54	32,196	223
	%	7.9	5.9		2.1	14.5	21.3	39.0	0.4	10.7	5.8	1.6	0.2	100.0	0.7
Area 14 – Enhance Work Zone Safety	N	834	597		469	1,625	1,765	1,494	304	1,057	3,696	747	381	223	7,974
	%	10.5	7.5		5.9	20.4	22.1	18.7	3.8	13.3	46.4	9.4	4.8	2.8	100.0
TOTAL	N	70,691	78,929		36,960	110,295	147,860	191,000	40,857	76,446	191,746	30,425	27,354	32,196	7,974

Source: David R. Ragland, Director, University of California Traffic Safety Center, University of California, Berkeley,

Table 7 suggests that intersection collisions represent greater than 18% overlap with ten of the 16 challenge areas, including:

Bicycle collisions	39.0%
Older Driver Collisions	38.9%
Young Driver Injury Collisions	33.4%
Pedestrian incidents	31.2%
Safety Belt/Child Safety Restraint usage	25.2%
Leaving the Roadway and head-on Collisions	24.2%
Impaired Driving	21.0%
Motorcycle Collisions	20.1%
Commercial Vehicle Collisions	19.6%
Work Zone Safety	18.7%

EXPLANATION OF THE TABLE

This table shows the overlap of all pairwise combinations of Challenge Areas that are defined by using SWITRS data (i.e., all areas except Area 3, 15, and 16). For Areas 3 and 15, no SWITRS data was available. Area 16 deals with overall data issues.

The table represents all injury collisions (fatal, severe, and minor combined). The table is set up so that Challenge Areas are represented by both rows and columns. The number in the cell represents the overlap, in absolute terms, and the % indicates the % of collisions in that Area that overlap with the Row target area. The blue-shaded cells are where the same areas intersect. The numbers in each row/column will not equal the total, as each causal factor can be represented in several different ways. As an example, a drunk driver may hit a pedestrian in an intersection. The single collision will be represented in Challenge areas 1, 7 and 8.

IMPLICATIONS

The set of Challenge Areas in California has a great deal of redunancy built in it. This is positive since it provides multiple ways to address the same collisions.

Success (or failure) in some areas will have major impacts on other areas.

Some sets of challenge areas might collaborate to mutual benefit.

CAVEATS

The table represents all injury collisions. Different patterns might emerge if we looked only at fatality or severe injury.

Note that this table only provides pair-wise combinations. A more complicated table would show that a large number of collisions are represented by three or even more Challenge Areas.

ttFor example, drunk driving was a factor in 7.8% of all intersection crashes, but intersections were a factor in 21% of all impaired driving fatalities.

The various challenge areas have redundancy built in. A collision at an intersection may involve an impaired driver, a pedestrian, and an older driver. All would be represented in Table 7. This redundancy allows multiple mitigation methods that could prevent the same type of collision from happening in the future.

CONSISTENCY WITH THE CALIFORNIA STRATEGIC HIGHWAY SAFETY PLAN

SCAG has no implementation authority, so can do little to enforce traffic laws, educate travelers, or provide EMS. What SCAG can do is work with the state and county transportation commissions to develop projects that promote the goals of the strategic highway safety plan, in conjunction with the enforcement, education and EMS goals.

CHALLENGE 1: REDUCE IMPAIRED DRIVING RELATED FATALITIES

Goal: By 2010, reduce the number of roadway user fatalities attributed to alcohol and drug use by 15 percent from their 2004 level.

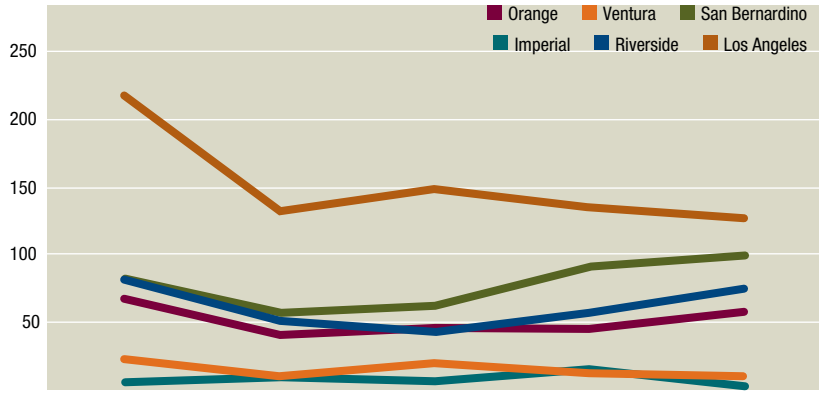
While the SCAG region has seen a decline in DUI/Drug collision fatalities, much of that can be attributed to a steep decline in Los Angeles County in 2002. Since 2002, the region, as a whole has increased each year from 298 deaths in 2002, to 371 deaths in 2005.

TABLE 8 FATALITIES IN DUI COLLISIONS IN THE SCAG REGION (2001-2005)

	2001	2002	2003	2004	2005
Imperial	8	9	6	14	4
Los Angeles	216	132	147	134	126
Orange	68	42	47	47	58
Riverside	82	50	43	56	75
San Bernardino	81	56	62	91	98
Ventura	22	9	19	11	10
SCAG	477	298	324	353	371
California	1,179	859	869	924	1,010
SCAG %	40.5%	34.7%	37.3%	38.2%	36.7%

Source: SWITRS

FIGURE 6 FATALITIES IN DUI COLLISIONS IN THE SCAG REGION



Source: SWITRS

There have been a greater number of DUI related injuries in the region, with 11,121 in 2001, declining to 10,661 in 2005. In relation to the State, the SCAG region represents less than 47%, but is higher than the fatality rate, which is 37 percent.

TABLE 9 INJURIES IN DUI COLLISIONS IN THE SCAG REGION (2001-2005)

	2001	2002	2003	2004	2005
Imperial	112	109	99	99	91
Los Angeles	6,146	5,157	5,277	5,343	5,405
Orange	1,508	1,491	1,474	1,628	1,605
Riverside	1,267	1,260	1,382	1,533	1,606
San Bernardino	1,507	1,368	1,340	1,406	1,411
Ventura	580	463	514	460	543
SCAG	11,120	9,848	10,086	10,469	10,661
California	25,344	22,383	22,064	22,760	22,824
SCAG % of California	43.9%	44.0%	45.7%	46.0%	46.7%

Source: SWITRS

The SHSP lists 10 strategies to reduce fatalities in this challenge area:

1. Educate roadway users regarding the dangers of impaired roadway use.
2. Restrict access to sources of alcohol/drugs for persons under 21 years of age, and for others as appropriate.
3. Enhance law enforcement training and the tools for detection of impaired roadway users.
4. Review effectiveness of existing sanctions as a deterrent to impaired driving.
5. Streamline and ensure consistent adjudication of arrested impaired drivers.
6. Improve the tracking of convicted impaired drivers.
7. Enhance the use of treatment programs to reduce recidivism of impaired drivers.
8. Increase and improve the application of administrative sanctions regarding impaired drivers.
9. Develop educational programs that combat the social acceptance of drinking and driving.
10. Develop new and innovative ways to approach repeat offenders.

While SCAG has an interest in reducing injuries and fatalities, SCAG has no implementation authority, particularly in relation to the 10 strategies. SCAG can support local jurisdictions and State authorities in their implementation of this Challenge.

CHALLENGE 2: REDUCE THE OCCURRENCE AND CONSEQUENCE OF LEAVING THE ROADWAY AND HEAD-ON COLLISIONS

Goal: By 2010, reduce the number of fatalities attributed to vehicles leaving the roadway by 15 percent from their 2004 level.

"Within California, data shows that the number of fatalities from vehicles leaving the roadway and head-on collisions accounted for 34 percent of total fatalities from 2002 – 2004. Although lower than the national average, further safety improvements are possible. In order to reduce the fatalities and injuries resulting from vehicles leaving the road, efforts must be made to: (1) keep vehicles from leaving the road, (2) reduce the likelihood and severity of errant vehicles crashing into fixed objects, and (3) reduce the likelihood of errant vehicles overturning".[4]

California intends to employ the following strategies to reduce the occurrence and consequence of leaving the roadway:

1. Keep vehicles on the roadway.
2. Minimize the consequences of leaving the roadway.
3. Reduce head-on collisions.
4. Apply advanced technology to reduce collisions.

SCAG RESPONSE

Work with subregions and county transportation commissions to continue to incorporate into highway construction/reconstruction methods to warn drivers (such as rumble strips, "zot dots," pavement markers, curve warning signs/beacons) they are leaving the highway or wandering into other lanes.

Support the continuing deployment of high visibility signage and road striping that enhance driver's ability to notice, recognize and respond to warning signs during night time or periods of inclement weather.

[4] Draft California Strategic Highway Safety Plan.

CHALLENGE 3: ENSURE DRIVERS ARE LICENSED AND COMPETENT

Goal: By 2010, reduce the number of fatalities attributed to drivers with no license, invalid license, or not licensed for class of vehicle by 15 percent from their 2004 level.

California intends to employ the following strategies to address the challenge of unlicensed and incompetent drivers:

1. Improve the initial licensing process.
2. Improve the competency of licensed California drivers.
3. Improve how California manages unlicensed drivers.
4. Improve how California manages drivers who operate vehicles with a suspended or revoked license.

While SCAG has an interest in reducing injuries and fatalities, SCAG has no implementation authority, particularly in relation to the above strategies. SCAG can support local jurisdictions and State authorities in their implementation of this Challenge.

CHALLENGE 4: INCREASE USE OF SAFETY BELTS AND CHILD SAFETY SEATS

Goal: By 2010, increase statewide safety belt usage from the 2005 level of 92.5 percent to 95 percent, improve the use of child safety seats from 2005 level of 86.9 percent to 90.0 percent, and increase the percent of all vehicle occupant fatalities that are restrained to 70 percent.

The combination of air bags and lap and shoulder safety belts offers the most effective safety protection available for passenger vehicle occupants. California reports a 92.5 percent usage of safety belts in motor vehicles for 2005 – the seventh highest in the country.[5]

The SCAG region represents 40% of all occupant protection fatalities. Data collected as part of the SHSP indicate that young adults (ages 15-24 years are most at risk for fatalities and injuries. The primary collision factor (PCF) for a third of all occupant restraint related fatalities is "driving while under the influence" (DUI), with improper turning the second largest category for PCF.

As can be seen by Table 10 and Figure 7, the largest number of fatalities and injuries are among the newest drivers, aged 15-24, with the numbers tapering off after that as drivers gain more experience

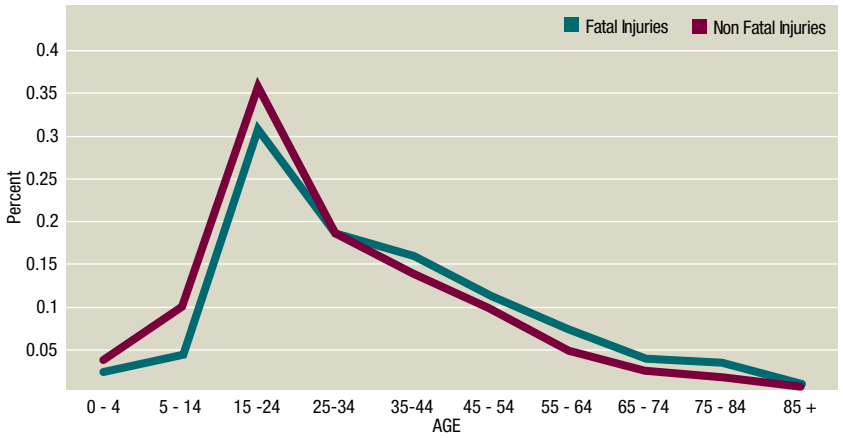
[5] NHTSA Seat Belt Use Rates 2005 - http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/RNotes/2005/809970.pdf

TABLE 10 OCCUPANT RESTRAINT NUMBER AND PERCENT OF INJURED AND FATAL INJURY COLLISIONS IN CALIFORNIA BY AGE (SWITRS 2003-2005)

	?	0 - 4	5 - 14	15 -24	25-34	35-44	45 - 54	55 - 64	65 - 74	75 - 84	85 +	Total
Injury		1664	4531	16322	8510	6310	4557	2087	1063	668	202	45914
Injury %		3.6%	9.9%	35.5%	18.5%	13.7%	9.9%	4.5%	2.3%	1.5%	0.4%	
Fatal	42	73	130	914	551	473	334	216	113	98	23	2967
Fatal %		2.5%	4.4%	30.8%	18.6%	15.9%	11.3%	7.3%	3.8%	3.3%	0.8%	

Source: SWITRS

FIGURE 7 OCCUPANT RESTRAINT FATAL INJURIES AND NON-FATAL INJURIES BY PERCENT OF THE POPULATION BY AGE (SWITRS 2003-2005)



Source: SWITRS

California intends to employ the following strategies to increase safety belt use and occupant protection:

1. Improve the availability, use, and proper installation of child restraint systems.
2. Target education and enforcement for demographic groups that show low safety belt usage rates.
3. Collect safety belt use information from first responders.
4. Increase education and enforcement on teen safety belt usage.

While SCAG has an interest in reducing injuries and fatalities, SCAG has no implementation authority, particularly in relation to the above strategies. SCAG can support local jurisdictions and State authorities in their implementation of this Challenge.

CHALLENGE 5: IMPROVE DRIVER DECISIONS ABOUT RIGHTS OF WAY AND TURNING

Goal: By 2010, reduce the number of fatalities attributed to improper rights of way and turning decisions by 10 percent from their 2004 level.

The Challenge Area Team defined Rights of Way and Turning as the following:

> RIGHT OF WAY is a driving concept that is fundamental to the most important decision that a driver makes. It is more commonly associated with decisions to cross or enter an intersection, but it also applies to maneuvers performed along a uni-directional flow of traffic (e.g. weaving, passing, merging and diverging).
>
> IMPROPER TURNING is the primary collision factor (PCF) most often reported when vehicles traveling on highway segments (i.e. between access points) leave their lane, then the highway, and then crash along the roadside. UNSAFE LANE CHANGING - is also used to report collisions on highway segments, but with one difference: the offending vehicle collides with a vehicle in an adjacent or other lane before it can leave the highway. IMPROPER TURNING and UNSAFE LANE CHANGING are closely related, and can be mitigated with the same improvement strategies.

The Challenge Area Team developed the following hypotheses concerning the conditions causing improper Rights of Way and Turning decisions.

> The two most prevalent operating conditions that occur on a regular (at least daily) basis at high collision locations include:
>
> a. A combination of high volumes and speeds
>
> b. A combination of unstable flow and speed differential between adjacent lanes; this condition is noteworthy because it is the primary source of abrupt or last second lane changing that appears to present a higher risk or potential for collisions than ordinary lane changing.

The most common physical (geometric) conditions or deficiencies at locations or segments with concentrated collisions are:

c. Access points that meet, or violate the minimum spacing requirements (per Caltrans or AASHTO policy)

d. Cross-sections of 8 or more lanes (4 or more lanes in one direction of travel)

e. High ramp density due to closely spaced access points and multiple ramps serving single interchanges (due to high volumes seeking to enter or exit a freeway).

The most complex combination of geometrics, operational maneuvers and decision-making occurs along freeway corridors containing HOV lanes, especially when limited access design and operation is employed (the standard practice in Southern California). These facilities usually have the highest volume of traffic, the widest cross sections, a high level of recurrent and non-recurrent congestion, and left-side access openings between the HOV lane and adjacent freeway lanes that are superimposed over the existing right-side access ramps in a way that violates standard interchange spacing requirements...

Forty percent of the statewide collisions for this Challenge Area are located in the Los Angeles Basin - the area comprised of LA and Orange Counties, and parts of Ventura, Riverside and San Bernardino Counties. This area contains:

- the highest volume highways (freeways) in the state
- the most congested highways (freeways) in the state
- the most lane miles of HOV lane found anywhere in the state (or nation)
- the highest density of freeway access points in the state (especially where HOV access openings have been superimposed on the existing freeway system).

- the longest commutes in the state (in terms of both distance and duration)

Finally, it is important to recognize that millions of decisions related to operational maneuvers occur throughout the entire highway network on a daily basis, yet collisions are concentrated over a very small portion of the infrastructure, and only when a certain combination of conditions exist. This clearly suggests that the frequency of maneuvers is not by itself responsible for collision concentrations. |In fact, the presence of specific geometric features (including deficiencies) and operating conditions are prerequisites for collision concentrations.

STRATEGIES

California intends to employ the following strategies to reduce the number of fatalities attributed to improper rights of way and turning decisions:

1. Educate drivers on turning rules to support proper turning decisions.
2. Increase enforcement of drivers who make unsafe turns.
3. Employ traffic control devices, traffic calming, and speed-reduction design practices to reduce the likelihood and severity of crashes related to turning movements.
4. Improve roadway geometrics to restrict unsafe turns by motor vehicles.
5. Apply advanced technology to reduce collisions.

SCAG RESPONSE

Support the use of traffic control devices, traffic calming, and speed-reduction design practices to reduce the likelihood and severity of crashes related to turning movements.

Support improved roadway geometrics to restrict unsafe turns by motor vehicles.

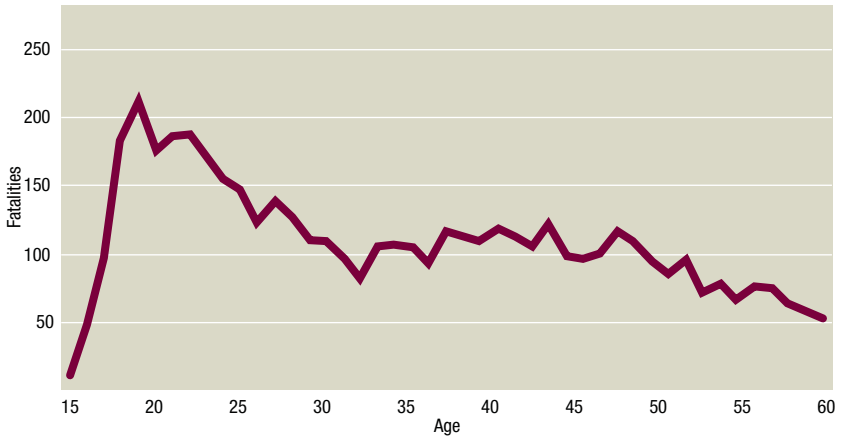
Support the use of advanced technology and ITS to reduce collisions.

CHALLENGE 6: REDUCE YOUNG DRIVER FATALITIES

Goal: By 2010, reduce the number of fatalities attributed to drivers age 15 – 20 by 15 percent from their 2004 level.

Motor Vehicle accidents are the leading cause of death for young drivers. As the Figure 8 indicates, fatalities rapidly increase by age up until age 25, where they decline to levels normally associated with older, more experienced drivers.

FIGURE 8 CALIFORNIA FATALITIES BY AGE (AGES 15-59) (2005)



Source: SWITRS

STRATEGIES

California intends to employ the following strategies to reduce young driver crashes:

1. Improve the education and behind the wheel training of young drivers.
2. Increase parental involvement, knowledge and buy-in to the graduated driver's license.
3. Improve the process of testing young drivers to obtain a driver's license.
4. Enforce compliance of young drivers with the graduated driver's license and rules of the road.
5. Enhance existing positive and constructive reinforcement of young driver behavior.
6. Enhance effective DUI countermeasures targeting drivers under age 21.

SCAG RESPONSE

While SCAG has an interest in reducing injuries and fatalities, SCAG has no implementation authority, particularly in relation to the above strategies. SCAG can support local jurisdictions and State authorities in their implementation of this Challenge

However, it should be noted that younger drivers make up a significant portion of fatalities at intersections and interchanges (Challenge Area 7). It is anticipated that any improvements made to intersections and interchanges could have some benefit to reducing younger driving fatalities.

CHALLENGE 7: IMPROVE INTERSECTION AND INTERCHANGE SAFETY FORROADWAY USERS

Goal: By 2010, reduce the number of intersection crash fatalities by 15 percent from their 2004 level.

Over 166,000 people were injured or killed at intersections in the SCAG region between 2003 and 2005 (an annual average of 55,333), representing nearly 22% of traffic fatalities and 35% of all traffic injury and fatality victims.

The Challenge Area Team noted that in California, on average, during 2003-2005, more than 97,000 people were injured or killed each year attempting to navigate the unique characteristics of roadways crossing another road or railroad tracks. There are several major aspects of the fatal intersection safety problem. Fatal collisions tended to:

- Occur on local roads (80%),
- Involve broadside collisions (64%), and/or
- Involve violations of traffic signals, stop signs, or another user's right of way (58%).

Collisions at intersections represent the greatest factor in a majority of the challenge areas. Pedestrians, young drivers, older drivers and impaired drivers each represent over 20% of fatalities and injuries at intersections.

TABLE 11 INJURED VICTIMS BY COUNTY AND DEGREE OF INJURY AND PERCENT OF TOTAL (SWITRS 2003-2005)

	Fatal		Severe		Minor		Total (All Victims)	
	Area 7 Victims	% of County Total	Area 7 Victims	% of County Total	Area 7 Victims	% of County Total	Area 7 Victims	% of County Total
County								
IMPERIAL	39	26.5%	61	19.4%	960	30.8%	1,060	29.6%
LOS ANGELES	585	25.3%	2,882	31.6%	102,684	39.5%	106,151	39.1%
ORANGE	151	23.8%	645	28.6%	22,455	32.6%	23,251	32.4%
RIVERSIDE	185	19.3%	539	22.2%	12,294	27.7%	13,018	27.2%
SAN BERNARDINO	189	15.9%	545	20.2%	14,702	30.3%	15,436	29.4%
VENTURA	44	20.0%	164	19.8%	6,906	36.1%	7,114	35.3%
SCAG Total	1,193	21.8%	4,836	27.4%	160,001	36.0%	166,030	35.5%
STATE Total	2,424	19.2%	9,663	24.3%	289,319	33.5%	301,406	32.9%

Source: SWITRS

Improving safety at intersections can have the greatest impact on decreasing impacts for most challenge areas in the SCAG region.

STRATEGIES

The State of California intends to employ the following strategies to reduce intersection crashes:

1. Improve land use planning regarding impacts to intersections.
2. Educate the public on intersection safety and the rules of the road.
3. Increase enforcement at and near intersections.
4. Improve the visibility of and at intersections (illumination, marking and advanced warning).
5. Improve the design of traffic control devices.
6. Enhance the safety of rail-highway intersections.
7. Improve roadway design at intersections.
8. Reduce high risk rural road collisions.
9. Apply advanced technology to reduce collisions.
10. Improve design and operation of freeway interchanges.

SCAG RESPONSE

As intersections are connection points for a variety of transportation modes (automobiles, pedestrians, motorcycles, commercial vehicles, etc…) they are also the locations for a significant number of collisions across all challenge areas.

Broadside collisions represent the greatest factor, with 64%, followed by violations of traffic signals.

SCAG is working with communities as part of the blueprint process in order to coordinate local land use with transportation. This process incorporates transit oriented development and walkable communities. This can include the promotion of safe intersection design, such as clearly marked crosswalks, “no right turn on red” signs at problem intersections.

- Incorporate intersection safety into the compass blueprint strategy.
- Incorporate ITS at high incident intersections to reduce red-light violations causing collisions.
- Encourage clearly marked, visible crosswalks
- Encourage the installation of improved visibility traffic signals as part of the normal traffic signal replacement cycle.
- Encourage development of median sanctuaries for pedestrians
- Support signalization at problem non-signalized intersections
- Encourage changing intersection geometries, where applicable. (offset intersection to aligned intersection, intersection to interchange, intersection to roundabout)

CHALLENGE 8: MAKE WALKING AND STREET CROSSING SAFER

Goal: By 2010, reduce the number of pedestrian fatalities attributed to vehicle collisions by 25 percent from their 2000 level.

Over 7,600 pedestrians were injured or killed in the SCAG region in 2005. Los Angeles County, the most urbanized, has the highest number of killed and injured. In looking at percentages, Los Angeles County leads also (the lower absolute number of fatalities and injuries in Imperial County skews the data).

One goal of the draft 2007 California Strategic Highway Safety Plan is "By 2010, reduce the number of pedestrian fatalities attributed to vehicle collisions by 25 percent from their 2000 level." The SCAG region had 349 pedestrian fatalities in 2000. That would entail reducing pedestrian fatalities to less that 280 by 2010.

The California SHSP Challenge Area Team examined available pedestrian fatality and injury data. The results of this data indicate:

- Although the State Highway System (SHS) accounts for only 10% of pedestrian injuries, it accounts for 29% of pedestrian fatalities.
- Although rural highways account for only 11% of pedestrian injuries, they account for 22% of pedestrian fatalities.
- The months of October through January have disproportionately high numbers of pedestrian injuries.
- Fridays and Saturdays have disproportionately high numbers of pedestrian fatalities and severe injuries.
- Although the bulk of walking trips take place during daylight hours, 60% of pedestrian fatalities occur during the hours of 7 PM to 7AM.
- Two-thirds of the pedestrian crash fatalities are male.
- Older pedestrians (55 and over) account for just 8% of pedestrian injuries, but 36% of pedestrian fatalities.
- Children 19 and under account for 34% of pedestrian injuries, yet only 13% of pedestrian fatalities.
- It is clear that pedestrian fatalities as a proportion of total fatalities are related to urbanicity…
- Urban areas tend to have higher pedestrian injury rates than expected based on population. Los Angeles County, for example, accounts for 39% of California's pedestrian injuries, but only has 28% of California's population. San Francisco accounts for 6% of California's pedestrian injuries, but only has 2% of California's population.
- Drivers in pedestrian crashes, like victims, are mostly male (63%)
- More pedestrian crash victims are Hispanic than any other race (38%).
- More pedestrian crash drivers are White than any other race (35%).
- 74% of pedestrian crash drivers had not been drinking.
- 75% of pedestrian crash victims had not been drinking.

STRATEGIES

The California SHSP intends to employ the following overall strategies to reduce pedestrian fatalities:

1. Incorporate pedestrian safety into smart growth, land use planning, and other local plans.
2. Enhance the enforcement of violations of pedestrian law by pedestrians and motorists.
3. Educate all roadway users regarding the rights and responsibilities of pedestrians.
4. Promote and improve roadway safety infrastructure for pedestrians including the use of advanced technology.
5. Improve the visibility of pedestrians on the roadway.
6. Improve the safety of pedestrians traveling to and from schools.

7. Improve data collection and analysis regarding pedestrian trip characteristics, level of service, injuries and fatalities on California roadways.
8. Improve pedestrian safety expertise among transportation professionals and others involved in the design process.
9. Consider pedestrian needs in all roadway and transit projects.
10. Reduce vehicle speeds on urban thoroughfares and rural highways.

TABLE 12 PEDESTRIAN FATALITIES AND INJURIES IN THE SCAG REGION (2005)

COUNTY	Killed	Injured	Total Killed	Total Injured	Percent Killed	Percent Injured
Imperial Total	4	46	46	1,040	8.70%	4.42%
City Roads	3	36	4	406	75.00%	8.87%
Unincorporated Roads	1	10	42	634	2.38%	1.58%
Los Angeles Total	204	5,225	745	86,582	27.38%	6.03%
City Roads	187	4,841	626	78,973	29.87%	6.13%
Unincorporated Roads	17	384	119	7,609	14.29%	5.05%
Orange Total	53	827	205	23,028	25.85%	3.59%
City Roads	51	808	193	22,388	26.42%	3.61%
Unincorporated Roads	2	19	12	640	16.67%	2.97%
Riverside Total	48	425	333	15,966	14.41%	2.66%
City Roads	24	336	174	10,503	13.79%	3.20%
Unincorporated Roads	24	89	159	5,463	15.09%	1.63%
San Bernardino Total	54	526	425	16,929	12.71%	3.11%
City Roads	42	430	228	12,227	18.42%	3.52%
Unincorporated Roads	12	96	197	4,702	6.09%	2.04%
Ventura Total	10	216	71	6,266	14.08%	3.45%
City Roads	5	204	38	5,291	13.16%	3.86%
Unincorporated Roads	5	12	33	975	15.15%	1.23%
SCAG Total	373	7,265	1,825	149,811	20.44%	4.85%
City Roads	312	6,655	1,263	129,788	24.70%	5.13%
Unincorporated Roads	61	610	562	20,023	10.85%	3.05%
Statewide Total	748	13,556	4,304	292,798	17.38%	4.63%

Source: SWITRS

SCAG RESPONSE

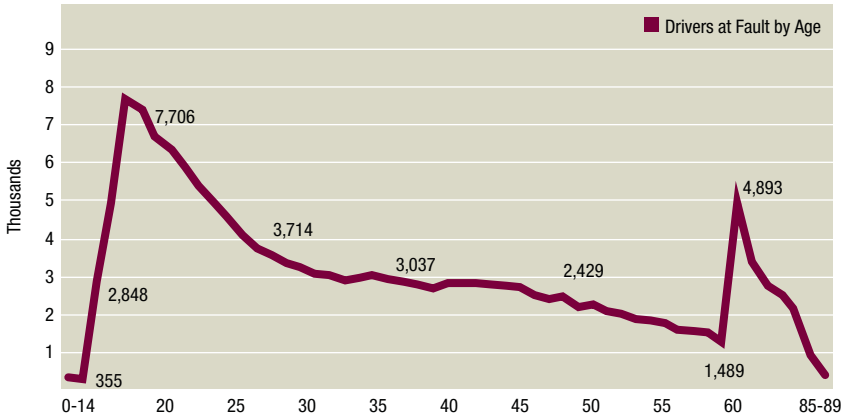
- Encourage cities and counties to integrate pedestrian safety into general & specific plans, non-motorized transportation plans and other land use policy documents
- Encourage the development of Pedestrian Safety Action Plans in all urban & rural communities
- Incorporate applicable Complete Streets policies – providing safe access for all modes – as fundamental principles of transportation plans
- Encourage safe, convenient, high visibility pedestrian crossings at mid-block and intersection locations on urban thoroughfares and rural highways.
- Encourage clearly marked, visible crosswalks at intersections and mid-blocked locations
- Encourage the use of advanced signalization at intersections
- Encourage pedestrian and bicycle safety in all maintenance projects where new striping will be required or existing striping is to be replaced

CHALLENGE 9 : IMPROVE SAFETY FOR OLDER ROADWAY USERS

Goal: By 2010, reduce the number of fatalities attributed to drivers age 65 and older by 10 percent from their 2004 level.

Older drivers tend to self regulate, driving less, avoiding rush hour and night time driving unless necessary. However, that means that older drivers are over represented when taking into account vehicle miles traveled. In addition, the frailty associated with advancing years means that older drivers are more likely to succumb to injuries in a minor collision than a younger person.

FIGURE 9 AT FAULT DRIVERS IN FATAL AND INJURY COLLISIONS BY AGE (2005)



Source: SWITRS

Intersections pose a particular safety problem for older drivers. Navigating through intersections requires the ability to make rapid decisions, react quickly, and accurately judge speed and distance. As these abilities can diminish through aging, older drivers have more difficulties at intersections and are more likely to be involved in a fatal crash at these locations. Research shows

that 37 percent of traffic-related fatalities involving drivers aged 65 and older occur at intersections compared with 18 percent for drivers aged 26 to 64[6].

"Failure-to-yield crashes occurred most often when drivers were turning left and occurred more frequently at stop signs than at signalized intersections. One reason was because failure-to-yield crashes at traffic signals were coded only for drivers turning left or right (going straight through a red light was coded as ran traffic control), whereas failure-to-yield crashes at stop signs were coded for drivers traveling straight as well as turning left or right. However, even among failure-to-yield crashes when drivers were turning left or right, a greater percentage occurred at stop signs (45 percent) than at signalized intersections (29 percent)…"

"…Compared with drivers of other ages, drivers ages 70-79 made more evaluation errors in failure-to-yield crashes, and these errors generally occurred when drivers saw the other vehicles but misjudged whether there was enough time to proceed."[7]

This may occur because of the level of cooperation needed at unsignalized intersections. At signalized intersections, the light dictates who moves. At stop signs there is greater interaction within the intersection proper. Some drivers enter the intersection "out of order" or come close to other cars already in the intersection "Among the oldest drivers, failure to see other vehicles may be due to age-related declines in visual ability or decreased ability to process multiple sources of information simultaneously." At "two way stop" intersections, the problems include, determining two-way or four-way stop, and assessing speed of non-stopping cars.

Recognizing that intersections are particularly problematic for older drivers, the FHWA's top priority in its Highway Design Handbook for Older Drivers and Pedestrians is intersection improvements. Practices to improve older drivers' ability to navigate intersections include using bigger signs with larger lettering to identify street names, consistent placement of lane use signs and arrow pavement markings, aligning lanes to improve drivers' ability to see oncoming traffic, and using reflective markers on medians and island curbs at intersections to make them easier to see at night. In addition, FHWA is considering changes to its Manual on Uniform Traffic Control Devices—to be published in 2009—that will enhance older driver safety by updating standards related to sign legibility and traffic signal visibility.

STRATEGIES

California intends to employ the following strategies to reduce older driver crashes:

1. Improve driver licensing testing and assessment procedures to more accurately reflect behind-the-wheel capabilities.
2. Create and promote wellness and behavioral strategies for older persons, making it possible for them to drive safely for added years.
3. Enhance law enforcement training to recognize older driver behaviors that may necessitate priority drivers license re-examinations, and provide law enforcement with a broader understanding of older driver sensitivities.
4. Develop public education materials, programs and tactics that clearly explain how the aging process affects driving and what families, friends and the public can do to help seniors (1) drive for more years safely and (2) transition comfortably to alternate forms of transportation when driving ceases.
5. Explain and encourage older persons' self-assessment of driving abilities and how to take advantage of that information to make appropriate decisions about driving.
6. Seek the cooperation and coordination of the transit (bus, light rail, etc.) community to make these transportation options more accommodating and practical for older persons who can no longer drive.

[6] Older Driver Safety - Knowledge Sharing should help states Prepare for Increase in Older Driver Population, (GAO-07-413)

[7] Older Driver Safety: Knowledge Sharing Should Help States Prepare for Increase in Older Driver Population (GAO-07-413)

7. Implement advancements in highway lighting, striping, signing and engineering practices to make the highway environment safer for older drivers.
8. Leverage the programs and resources of the Older Californian Traffic Safety Task Force to help with accomplishment of stated objectives.
9. Promote the establishment and enhanced capacity of occupational therapy driving evaluation and rehabilitation programs that serve seniors.
10. Improve the ability of health care professionals to provide effective assessment, counseling, and remediation to improve safe mobility of seniors.

SCAG RESPONSE

- Support JARC/New Freedom, paratransit to include those over 65 years of age.
- Support roadway, intersection and interchange improvements that support improving rights of way decision by older drivers.
- Encourage formation and expanded use of Supplemental Transportation Systems (STPs), particularly in locations where standard public transit is sparse or unavailable.
- Support signage and striping that enhance driver's ability to notice, recognize and respond to warning signs during night time and/or inclement weather conditions.

CHALLENGE 10 : REDUCE SPEEDING AND AGGRESSIVE DRIVING

Goal: By 2010, reduce the number of fatalities attributed to speeding and other forms of aggressive driving by 15 percent from their 2004 level.

The SHSP Challenge Area Team performed a review of the statistics from SWTRS reports between 2003 and 2005. The results indicate a number of trends in California:

The five counties having the highest number of aggressive driving fatalities in the State are: Los Angeles (25.1%), San Diego (9.5%), San Bernardino (7.6%), Riverside (7.1%) and Orange (4.8%).

Statistics show percent of accidents resulting in a fatality based on the at fault driver:

Gender	Male (78%) to Female (22%)
Age:	15 to 24 at 34%
	25 to 34 at 21%
	35 to 44 at 16%
Day	Weekends (Friday to Sunday) at 53%
Time	Between 9:00 pm and 1:00 am at 17%
Urban/Rural	Urban at 60% with Rural at 40%

Ninety-eight percent of aggressive driving fatalities occurred based on a primary collision factor of Unsafe Speed. Based on Unsafe Speed and Following Too Close, three collision types presented as the most common: Hit Object (34%), Rear End (25%) and overturned (12%).

STRATEGIES

California intends to employ the following strategies to reduce speeding and aggressive driving collisions.

The SHSP Implementation Plan will present specific action items to implement these strategies:

1. Change our social norms to reduce the acceptability of speeding and other forms of aggressive driving.
2. Provide targeted enforcement to locations prone to speeding and other forms of and aggressive driving.
3. Employ engineering methods to deter speeding and other forms of aggressive driving (e.g. traffic calming).
4. Ensure consistent adjudication of drivers cited for speeding and other forms of aggressive driving.
5. Apply advanced technology to reduce collisions.
6. Reduce the presence of speeding, unsafe and aggressive driving on the television and in movies.

SCAG RESPONSE

Work with the State and county transportation commissions to determine if various project submissions have potential benefit to safety in this challenge area.

CHALLENGE 11 : IMPROVE COMMERCIAL VEHICLE SAFETY

Goal: By 2010, reduce the number of commercial vehicle crash fatalities by 10 percent from their 2004 level.

There were 17,085 truck-involved collisions in SCAG region in 2005. Less than one percent or 126 of the collisions were fatal, 24.8 percent caused injury, and 74.5 percent were property-damage-only collisions.

Commercial Vehicle Safety is critical to the SCAG region. The region hosts three ports that represent a significant amount of cargo coming into the nation. In addition, agriculture, particularly in Imperial and Ventura counties represent time-critical commercial transportation.

As indicated in Table 13. Imperial County has the highest fatal truck-involved collision rate (1.8 percent, followed by San Bernardino (1.2 percent) and Riverside (1.1 percent). Ventura County has the lowest (0.4 percent). Table 14 indicates the historical fatal collision rate since 1996, while Table 15 indicates the historical injury collision rate.

TABLE 13 TYPES OF TRUCK INVOLVED COLLISIONS IN THE SCAG REGION (2005)

	Fatal		Injury		Property Damage Only		Total	
County Region State	Collisions	Percent	Collisions	Percent	Collisions	Percent	Collisions	Percent
Imperial	3	1.8%	47	28.7%	114	69.5%	164	100%
Los Angeles	50	0.5%	2,229	23.8%	7,077	75.6%	9,356	100%
Orange	15	0.7%	531	24.6%	1,609	74.7%	2,155	100%
Riverside	22	1.1%	571	27.3%	1,495	71.6%	2,088	100%
San Bernardino	34	1.2%	721	25.6%	2,065	73.2%	2,820	100%
Ventura	2	0.4%	134	26.7%	366	72.9%	502	100%
SCAG Region	126	0.7%	4,233	24.8%	12,726	74.5%	17,085	100%
CA, Excluding SCAG Region	217	1.5%	3,577	25.0%	10,537	73.5%	14,331	100%
California	343	1.1%	7,810	24.9%	23,263	74.0%	31,416	100%

Source: SWITRS

TABLE 14 FATAL TRUCK COLLISIONS BY COUNTY (1996-2005)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
COUNTY										
Imperial	4	5	8	5	8	9	3	6	8	3
Los Angeles	65	70	54	48	63	72	55	56	60	50
Orange	10	16	10	15	9	14	12	14	15	15
Riverside	21	25	28	27	25	20	21	28	30	22
San Bernardino	29	36	32	36	34	27	28	29	36	34
Ventura	6	7	6	3	4	5	7	8	6	2
SCAG	135	159	138	134	143	147	126	142	155	126
CA Total	373	364	343	334	366	362	345	339	342	343
SCAG %	36%	44%	40%	40%	39$	41%	37%	42%	45%	37%

Source: SWITRS

The SCAG region represented 53.4% of the State's 7,810 truck collisions that involved a fatality or injury in 2005. Of the 7,810 truck involved collisions in the State, 3,570, or 46% had truck drivers at fault.

Table 16 represents the top twenty highways in the SCAG region for Truck involved collisions. The most common type of truck-involved collisions was side-wipe, followed by rear end. They represent 43 percent of truck-involved collisions in SCAG region in 2005, as represented by Table 17. Most of truck-involved collisions in SCAG region occurred on state highways (57 percent in total), 9 percent occurred on ramps. It is likely that the difficult maneuvers of big trucks near highway ramps tend to cause traffic collisions, as indicated by Table 18.

TABLE 15 INJURY TRUCK COLLISIONS BY COUNTY (1996-2005)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
COUNTY										
Imperial	61	63	71	57	43	55	42	54	50	46
Los Angeles	2520	2375	2307	2428	2446	2511	2344	2338	2087	2210
Orange	524	544	563	537	560	487	449	461	497	524
Riverside	337	370	404	412	429	441	455	544	562	558
San Bernardino	614	614	626	693	633	692	679	755	781	703
Ventura	134	166	141	136	143	155	166	151	124	133
SCAG	4190	4132	4112	4263	4254	4341	4135	4303	4101	4174
CA Total	8348	8421	8447	8623	8695	8729	8230	8241	7949	7810
SCAG %	50%	49%	49%	49%	49%	50%	50%	52%	52%	53%

Source: SWITRS

TABLE 16 TOP TWENTY HIGHWAYS WITH MOST TRUCK-INVOLVED COLLISIONS (2005)

Rank	Primary Road	Collisions	Percent
1	RT 10	1,571	9.2%
2	RT 5	1,548	9.1%
3	RT 15	946	5.5%
4	RT 60	938	5.5%
5	RT 405	725	4.2%
6	RT 91	725	4.2%
7	RT 101	549	3.2%
8	RT 710	545	3.2%
9	RT 215	432	2.5%
10	RT 210	420	2.5%
11	RT 605	418	2.4%
12	RT 57	305	1.8%
13	RT 110	262	1.5%
14	RT 118	145	0.8%
15	RT 14	142	0.8%
16	RT 105	127	0.7%
17	RT 40	106	0.6%
18	RT 55	95	0.6%
19	RT 22	91	0.5%
20	RT 134	85	0.5%
Top 20 Routes Total		10,175	60%
Grand Total		17,085	100%

Source: SWITRS

TABLE 17 TYPE OF TRUCK-INVOLVED COLLISIONS (2005)

Type of Collision	Collisions	Percent
Sidewipe	7,314	43%
Rear End	5,175	30%
Hit Object	1,747	10%
Broadside	1,706	10%
Overturned	365	2%
Head-On	265	2%
Vehicle/Pedestrian	60	0.4%
Other	453	3%
Total	17,085	100%

Source: SWITRS

TABLE 18 TRUCK-INVOLVED COLLISIONS BY LOCATION TYPE

Location Type	Collisions	Percent
State Highway		
Highway	9,706	57%
Ramp	1,453	9%
Intersection	199	1%
Not State Highway	5,717	33%
Total	17,085	100%

Source: SWITRS

Tables 19 and 20 detail the locations in order of frequency in the SCAG Region. The top locations on state highways and the top five locations on city/county roadways have been identified by the highest number of collisions, per year. It should be noted that the vast majority of accident locations within California are located in the SCAG region. The top 14 locations for Highway and Non-State Locations of commercial vehicle accidents are in the SCAG region.

TABLE 19 HIGHWAY AND NON-STATE LOCATIONS IN SCAG REGION WHERE A COMMERCIAL TRUCK WAS INVOLVED IN AN INJURY ACCIDENT (2005)

Highway	City/County	Secondary Route	Collisions
Rte 60	Diamond Bar/LA	Grand Ave	162
Rte 605	Unincorporated/LA	Route 60	113
Rte 15	Unincorporated/SB	Route 138	109
Rte 10	Ontario / SB	Milikin Ave	109
Rte 15	Unincorporated/SB	Kenwood Ave	102
Rte 605	Baldwin Park/LA	Route 10	96
Rte 605	Santa Fe Springs/LA	Telegraph Road	95
Rte 91	Anaheim/Orange	Imperial Highway	93
Rte 91	Anaheim/Orange	Lakeview Ave	89
Rte 10	Unincorporated/SB	Cedar Ave	89
Rte 91	Anaheim/Orange	Weir Canyon Rd	87
Rte 405	Los Angeles/LA	Sepulveda Blvd	84
Rte 10	Ontario / SB	Rte 15	83
Rte 215	Riverside/Riverside	Blaine St.	76
Roadway	City/County	Secondary Route	Collisions
Valley Blvd	Unincorporated/SB	Cedar Ave	36
Castaic Rd	Unincorporated/LA	Lake Hughes Rd	20
Van Buren Blvd	Unincorporated/Riverside	Washington St.	19

Source: SWITRS

TABLE 20 HIGHWAY AND NON-STATE HIGHWAY LOCATIONS IN THE SCAG REGION WHERE A COMMERCIAL TRUCK INVOLVED IN AN INJURY ACCIDENT WAS AT FAULT (2005)

Highway	City/County	Secondary Route	Collisions
Rte 60	Diamond Bar/LA	Grand Ave	86
Rte 10	Ontario / SB	Milikin Ave	75
Rte 15	Unincorporated/SB	Kenwood Ave	62
Rte 15	Unincorporated/SB	Route 138	61
Rte 605	Unincorporated/LA	Route 60	60
Rte 91	Anaheim/Orange	Imperial Highway	52
Rte 405	Los Angeles/LA	Sepulveda Blvd	51
Rte 605	Baldwin Park/LA	Route 10	50
Rte 605	Santa Fe Springs/LA	Telegraph Road	50
Rte 215	Riverside/Riverside	Blaine St.	47
Rte 605	Unincorporated/LA	Valley Blvd	46
Rte 405	Unincorporated/LA	Wilshire Blvd	44
Rte 91	Anaheim/Orange	Weir Canyon Rd	43
Rte 10	Ontario / SB	Rte 15	42
Roadway	City/County	Secondary Route	Collisions
Valley Blvd	Unincorporated/SB	Cedar Ave	16
Castaic Rd	Unincorporated/LA	Lake Hughes Rd	14
Van Buren Blvd	Unincorporated/Riverside	Etiwanda Ave	12

Source: SWITRS

As indicated in Table 21, unsafe speed, unsafe lane change, and improper lane change are the top three factors causing truck-involved collisions. Combined together, they represent 70 percent of all truck involved collisions in SCAG region in 2005.

TABLE 21 CONTRIBUTING FACTORS OF ALL TRUCK-INVOLVED COLLISIONS IN THE SCAG REGION (2005)

Violation Category	Collisions	Percent
Unsafe Speed	4,417	25.9
Unsafe Lane Change	4,186	24.5
Improper Turning	3,305	19.3
Other Than Driver (or Pedestrian)	821	4.8
Automobile Right of Way	740	4.3
Improper Passing	477	2.8
Driving Under the Influence of Alcohol or Drug	459	2.7
Other Hazardous Violation	443	2.6
Other Equipment	348	2.0
Traffic Signals and Signs	335	2.0
Following Too Closely	253	1.5
Wrong Side of Road	228	1.3
Other Improper Driving	122	0.7
Brakes	94	0.6
Pedestrian Violation	32	0.2
Hazardous Parking	27	0.2
Impeding Traffic	20	0.1
Lights	15	0.1
Pedestrian Right of Way	8	0.05
Fell Asleep	5	0.03
Not Stated	228	1.3
Unknown	522	3.1
Total	17,085	100

Source: SWITRS

Most of truck-involved collisions in SCAG region occurred on state highways (67 percent in total), 9 percent occurred on ramps. It is likely that the difficult maneuvers of big trucks near highway ramps tend to be a factor in traffic collisions.

Unsafe speed, unsafe lane change, and improper lane change are the top three factors causing truck-involved collisions. Combined together, they represent 70 percent of all truck involved collisions in SCAG region in 2005

STRATEGIES

California intends to employ the following strategies to reduce the number of fatalities attributed to commercial vehicle collisions. The SHSP Implementation Plan will present specific action items to implement these strategies:

1. Educate the public on commercial vehicle safety.
2. Improve the training, testing, and licensing of commercial vehicle drivers.
3. Increase the enforcement of commercial vehicle and operator violations.
4. Improve commercial vehicle maintenance.
5. Increase the use of commercial vehicle safety equipment.
6. Improve commercial vehicle drivers' detection of other roadway users.
7. Improve infrastructure for commercial roadway drivers.
8. Improve commercial vehicle safety design.
9. Apply advanced technology to reduce collisions.

TABLE 22 INJURY COLLISIONS* IN CALIFORNIA WHERE TRUCK DRIVER WAS AT FAULT BY AGE BY PRIMARY COLLISION FACTOR (2005)

	AGE													
	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	≥65	Not Stated	TOTAL
Primary Collision Factor														
Unsafe Speed		23	114	166	161	233	236	199	145	98	51	28	43	1,497
Improper Turning	1	8	45	69	52	68	87	64	62	31	19	15	24	545
Unsafe Lane Change		6	27	40	53	46	64	60	44	35	22	9	114	520
Automobile Right-Of-Way		5	18	37	38	49	57	36	32	24	12	20	10	338
Traffic Signals And Signs		8	15	14	8	16	20	13	12	4	6	3	4	123
Unsafe Starting Or Backing		1	9	14	15	15	14	18	5	11	4	4	4	114
Following Too Closely		3	8	15	18	16	13	9	14	7	5	4	1	113
Wrong Side Of Road		3	5	3	9	11	9	11	12	2	4	6	6	81
Other Hazardous Violation			2	5	5	10	9	5	5	5	1	2	11	60
Influence Of Alcohol Or Drug		1	3	4	7	4	8	5	2	4	2	1		41
Not Stated		1	4	6	5	5	3	4	2	2	2		3	37
Other Equipment				2	4	8	6	4	2	1		1	2	30
Improper Passing				4	2	5	5	2	2	2	2		5	29
Pedestrian Right-Of-Way			2		3	2	2	2	1	1	1		2	16
Other Improper Driving			1			3	2	2	1				3	12
Brakes				3		2	3		1	2				11
Hazardous Parking					1	1		1	1				2	6
Impeding Traffic									1					1
Pedestrian Violation		1												1
Unknown								1						1
TOTAL	1	60	253	382	381	494	538	436	344	229	131	93	234	3,576

Source: SWITRS

SCAG RESPONSE

- Support the use of dedicated truck capacity on corridors with significant truck traffic in order to separate commercial vehicles from passenger vehicles.
- Support the continued modernization of intersections and interchanges prone to high commercial vehicle collisions to promote safety
- Support the use of truck climbing lanes as a method to segregate commercial vehicles from passenger vehicles.

CHALLENGE 12 : IMPROVE MOTORCYCLE SAFETY

Goal: By 2010, reduce the number of motorcycle rider fatalities by 10 percent from their 2004 level.

In 2005 in the SCAG region, there were over 3,649 motorcycle collisions, of which 172 were fatal. That represents just over 40% of the State fatalities and injuries.

Despite the fact motorcycles represent 2.1 percent of all vehicles registered in California, motorcyclists are involved in 10.8 percent of all fatal traffic collisions. Within the SCAG region, motorcycles are involved in 4.5 percent of all fatal traffic collisions. Fatal and Injury Motorcycle collisions in the SCAG region are indicated in Table 23.

TABLE 23 FATAL AND INJURY MOTORCYCLE COLLISIONS BY COUNTY (2001-2005)

	YEAR									
	2001		2002		2003*		2004*		2005*	
	Fatal	Injury	Fatal	Injury	Fatal	Injury	Fatal	Injury	Fatal	Injury
COUNTY										
Imperial	1	19	1	12	1	26		15	2	15
Los Angeles	58	1,701	62	1,866	78	2,167	70	1,996	74	1,928
Orange	24	425	16	505	21	601	27	532	29	630
Riverside	16	335	24	389	25	458	16	458	25	433
San Bernardino	15	335	22	396	26	390	27	472	32	453
Ventura	4	170	6	200	13	254	9	231	10	190
SCAG Region	118	2,985	131	3,368	164	3,896	149	3,704	172	3,649
CA Total	289	7,920	320	8,406	369	9,254	352	9,056	411	9,061
SCAG %	40.8%	37.7%	40.9%	40.1%	44.4%	42.1%	42.3%	40.9%	41.9%	40.3%

Source: SWITRS

In researching the data for this challenge area, the Challenge Area Team determined that:

> Several groups of riders are overrepresented compared to their presence in the motorcycle riding population. For example, riders from 15-24 are a small percentage of the owners (4-6%) yet represent nearly twice that percentage of fatalities (11-13%). A second group of riders that are over-represented according to their presence in the population is riders over 55. It should also be noted that 90% of the fatal victims are male.[8]
>
> The primary collision factor for 59% of the motorcycle collisions were attributed to three factors: driving under the influence (DUI) of alcohol and/or drugs, unsafe speed, and improper turning. CHP data shows that of the motorcycle-involved collisions, 65% of the fatal and 56% of the injury collisions were the fault of the motorcyclist.

- Alcohol impairment is a substantial problem for motorcyclists, more so than for drivers of other motor vehicles.[9]
- Unsafe speed and improper turning indicate a need for an emphasis on rider education and training.
- Licensing (written/practical testing) and training standards for motorcyclists are lower than for drivers of passenger vehicles despite the fact riding a motorcycle requires higher levels of both vehicle control and cognitive skills.

It is noted in Table 24 that the greatest primary collision factor with motorcycle collisions is unsafe speed. Also noted in the table is that the 20-24 age group is significantly higher in collisions with a primary collision factor of unsafe speed. Younger motorcycle drivers have the highest number of collisions in 12 primary collision factors.

[8] David Ragland

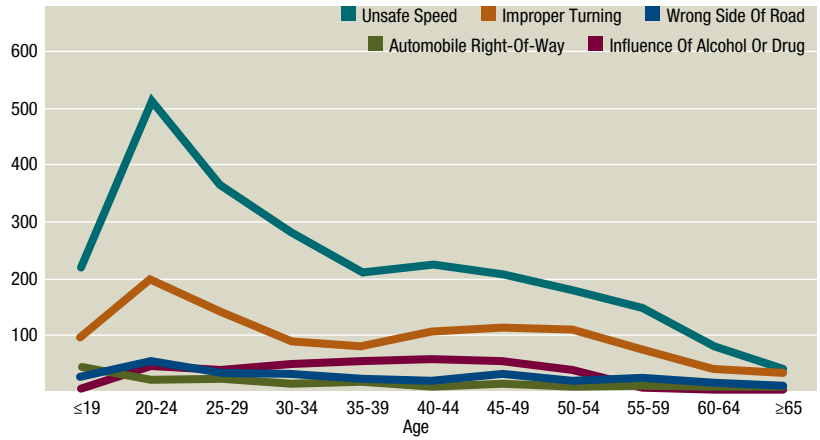
[9] Countermeasures That Work: Highway Safety Countermeasure Guide For State Highway Safety Offices, NHTSA Nationwide

TABLE 24 INJURY COLLISIONS IN CALIFORNIA WHERE MOTORCYCLE DRIVER WAS AT FAULT BY AGE BY PRIMARY COLLISION FACTOR (2005)

	≤19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	≥65	?	TOTAL
Primary Collision Factor													
Unsafe Speed	219	511	361	282	213	227	209	180	151	81	43	19	2,496
Improper Turning	96	199	141	87	80	103	113	109	73	38	35	5	1,079
Influence Of Alcohol Or Drug	12	50	43	51	56	59	57	42	12	3	4		389
Wrong Side Of Road	28	50	34	29	22	16	29	22	21	13	6	6	276
Automobile Right-Of-Way	46	20	23	15	17	10	15	10	8	7	9	6	186
Improper Passing	13	28	25	20	18	19	9	11	10	3	2	2	160
Other Hazardous Violation	10	21	15	15	16	19	8	13	19	6	2		144
Unsafe Lane Change	12	23	17	11	16	6	9	12	8	3	6	6	129
Traffic Signals And Signs	29	26	14	16	12	5	5	10	3	2	2	3	127
Following Too Closely	3	11	13	10	12	11	12	13	7	1	3		96
Not Stated	5	8	8	10	9	8	9	3	4		3	2	69
Other Improper Driving	11	9	5	10	3	4	6	10	5	2	1	1	67
Unsafe Starting Or Backing	5	5	1	2	5	4	8	3	1	1	1	1	37
Unknown	3	7	2	6	1							1	20
Pedestrian Right-Of-Way		2	1	1				3	1		1	4	13
Other Equipment		1		1	1		2	2				1	8
Impeding Traffic				1				1					2
Fell Asleep		1	1										2
Brakes	1												1
Other Than Driver											1		1
TOTAL	392	972	704	567	481	491	491	444	323	160	119	57	5,302

Source: SWITRS

FIGURE 10 INJURY COLLISIONS IN CALIFORNIA WHERE MOTORCYCLIST WAS AT FAULT (2005)



Source: SWITRS

STRATEGIES

California intends to employ the following strategies to reduce motorcyclist fatalities:

1. Educate the public on motorcycle safety.
2. Improve the training, testing, and licensing of motorcyclists.
3. Enhance the enforcement of motorcyclist violations and violations by the operators of other vehicles.
4. Increase the use of safety equipment by motorcyclists.
5. Improve motorcyclist visibility to other roadway users.
6. Improve roadway design to enhance motorcycle safety.
7. Promote the use of helmets that meet USDOT standards.

SCAG RESPONSE

- Work with the State and county transportation commissions to determine if various project submissions have potential benefit to safety in this challenge area.

CHALLENGE 13 : IMPROVE BICYCLING SAFETY

Goal: By 2010, reduce the number of bicycle roadway fatalities by 25 percent from their 2000 level.

According to the National Highway Traffic Safety Administration (NHTSA), 57 percent of all bicycle fatalities that occurred with the State of California in 2005 and 15 percent of nationwide bicycle fatalities happened within the SCAG Region. Table 25 provides an indication of the number of fatalities in the SCAG region since 1997.

According to the data provided in Table 26, it is apparent is that the 5-14 age group has had the most injuries of any other age group. In Imperial County, fully 49% of bicycle injuries within the county were within this age group.

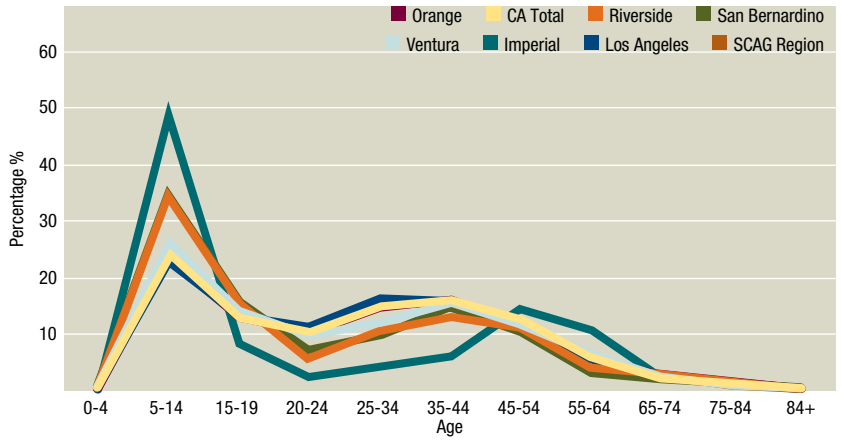
Historically, the primary goal of roadway design for urban thoroughfares and rural highways has been to increase vehicular traffic flow particularly at peak congestion times. This has created situations where slow speed bicycles are traveling at speeds less than 25 miles per hour are sharing lanes with cars often going at much greater speeds. This speed differential, coupled with the physics of a 30 pound bicycle colliding with, or being struck by, a 3000+ pound vehicle, is a factor in the severity of injuries.

TABLE 25 BICYCLE FATALITIES

County	1997	1998	1999	2000	2001	2002	2003	2004	2005
Imperial	0	2	2	2	1	2	0	0	0
Los Angeles	23	14	25	29	16	21	21	22	25
Orange	16	16	15	8	10	8	8	7	9
Riverside	3	11	5	9	9	14	7	8	15
San Bernardino	10	8	7	9	4	6	14	13	12
Ventura	2	4	0	6	6	4	3	2	5
SCAG Region	54	55	54	63	46	55	53	52	66
California	110	104	112	110	105	116	106	110	115
USA	814	760	754	693	732	665	629	727	784
SCAG % of CA	49%	53%	48%	57%	44%	47%	50%	47%	57%
CA % of USA	14%	14%	15%	16%	14%	17%	17%	15%	15%

Source: NHTSA National Center for Statistics Analysis

FIGURE 11 BICYCLE INJURY COLLISIONS BY AGE AND COUNTY (2003-2005)



Source: SWITRS

One obvious potential solution is to build more dedicated bicycle facilities[10] in order to separate bicyclists from motorists. This is not feasible in all situations. In an urban built-out environment, there may be no room for additional facilities.

In addition, there is some debate amongst some regional bicycle advocates on the perceived safety of Class 2 bike lanes. Some advocates argue that every arterial should have a Class 2 bike lane and others argue that cyclists should be treated as any other vehicle on a public street.

Others argue that the "thin white line" of a Class 2 bike lane provides a false sense of safety and can lead to more accidents. Class 1 bike paths, separate from roadways are often multi-use with walkers and joggers, creating the potential for a fast moving bicycle to collide with a pedestrian. In addition, some advocates argue that where Class 1 bike paths intersect roadways, there is a greater collision potential due to lack of awareness and visibility.

However, inexperienced cyclists and basic cyclists may not have developed the skills necessary for riding bicycles safely on urban streets, particularly those under 14 or those older adults resuming bicycle riding for the first time

[10] There are three types of bicycle facilities being referenced: Class 1 dedicated bike paths; Class 2 bike lanes on streets, and; class 3, bike routes where signage signifies bicyclists may be on roadway. A detailed description is in the non motorized chapter of this Regional Transportation Plan.

TABLE 26 INJURED VICTIMS AGE BY COUNTY (SWITRS 2003-2005)

Age	0 - 4	5-14	15 - 19	20 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 -74	75 - 84	85 +	Total
Imperial	0	40	7	2	4	5	12	9	2	1	0	82
Los Angeles	47	2,119	1,216	1,039	1,537	1,471	1,092	520	187	76	15	9,319
Orange	17	723	405	320	451	508	351	194	86	46	2	3,103
Riverside	11	359	163	60	108	137	117	46	29	9	1	1,040
San Bernardino	8	350	156	72	97	149	106	34	21	6	2	1,001
Ventura	3	246	133	93	114	147	111	62	24	8	3	944
SCAG Region	75	3,478	1,917	1,526	2,203	2,280	1672	819	320	137	22	14,449
CA Total	179	7,755	4,169	3,310	4,851	5,158	4,094	1,848	726	318	58	32,466

Source: SWITRS

since childhood. For these cyclists, dedicated bicycle facilities are perceived to be a requirement for riding on public streets.

The region has 3,218 miles of existing bicycle facilities, with another 3,170 planned. SCAG encourages each county to develop and update bi-annually a non-motorized transportation plan with a bicycle component (in order to be eligible for State Bicycle Transportation Account funds). These plans should incorporate to the extent possible the goals, objectives and strategies of the SHSP.

TABLE 27 BICYCLE FACILITIES BY COUNTY (MILES)

County	Imperial	Los Angeles	Orange	Riverside**	San Bernardino	Ventura
Existing						
Class 1	0	251	205	313#	33	56
Class 2	0	481	639	160	60	251
Class 3	0	520	102	62	29	56
Total		1,252	946	535	122	363
Proposed						
Class 1	42	228	46	59	405	Unk
Class 2	212	524	155	164	890*	Unk
Class 3	0	392	8	45	0	Unk
Total	254	1,145	208	268	1,295	Unk
Ultimate	254	2,397	1,154	803	1,417	Unk##

*Project could be Class 2 or Class 3
**Riverside County has not developed a bicycle master plan
Does not include off road bicycle trails, equestrian trails, historic trails, etc.
Draft Ventura bicycle Plan not complete at time of this report

Source: SWITRS

All counties, with the exception of Riverside County, have developed a bicycle or non-motorized transportation plan. Riverside County has a non-motorized element in the circulation component of their General Plan.

TABLE 28 COUNTY BICYCLE PLANNING

County	Plan Type	Last Update
Imperial	Bicycle Master Plan	2003 (updated 2007)
Los Angeles	Bicycle Plan	2006
Orange	Bicycle Commuter Bikeways	2001 (currently being updated)
Riverside	Circulation Component of General Plan	
San Bernardino	Non-Motorized	2001
Ventura	Bicycle Plan	2007 (draft)

Source: SWITRS

STRATEGIES

California intends to employ the following strategies to reduce bicyclist fatalities on California's roadways:

1. Improve data collection regarding bicyclist trips, injuries, and fatalities on California roadways.
2. Incorporate bicyclists into smart growth, land use planning, and other local plans.
3. Enhance the enforcement of bicyclist and motorist roadway laws.
4. Educate all roadway users regarding the rights and responsibilities of bicyclists.
5. Promote and improve roadway safety infrastructure for bicyclist use.
6. Improve the visibility of bicyclists on the roadway.
7. Improve the safety of bicyclists traveling to and from schools, utilizing education, encouragement,
8. Enforcement and engineering techniques.
9. Increase the use of helmets and enforcement of related laws.
10. Improve bicycle safety expertise among transportation professionals.

SCAG RESPONSE

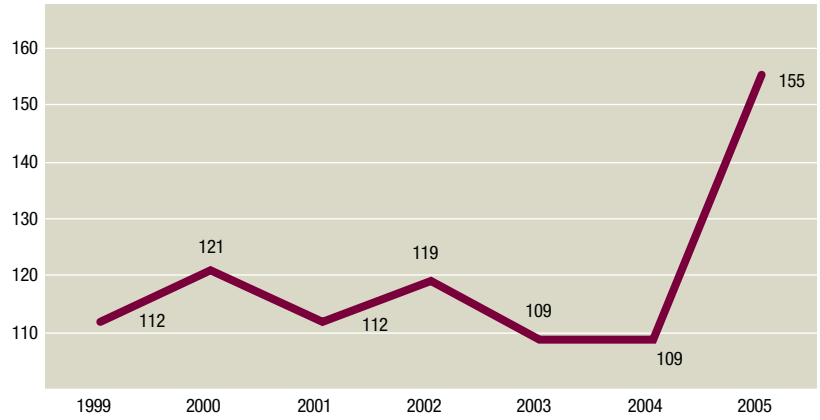
- Encourage the addition of dedicated bicycle facilities where appropriate and safe.
- Encourage all local jurisdictions to incorporate safety in their bicycle transportation plan updates.
- Incorporate applicable Complete Streets policies – providing safe access for all modes – as fundamental principles of transportation plans.
- Encourage the consideration of bicycle and pedestrian safety as part of Blueprint Land Use Planning.
- Encourage pedestrian and bicycle safety in all maintenance projects where new striping will be required or existing striping is to be replaced
- Encourage the use of intersection control devices that detect bicyclists, particularly left turn signals.

CHALLENGE 14: ENHANCE WORK ZONE SAFETY

Goal: By 2010, reduce work zone fatalities by 10 percent from their 2004 level.

In researching for this challenge area, the Challenge Area Team noted that there were 155 work zone fatalities in California in 2005, representing a 42% increase over the annual average of 98 from 1995 to 2004. Work zone fatalities comprise 24% of all occupational fatalities. 26% of California's work zone fatalities occur as a result of rear-end collisions. If drivers had ½ second more warning, 60% of all rear-end crashes could be avoided.

FIGURE 12 WORK ZONE FATALITIES



Source: SWITRS

Highway work zones create a major safety concern for roadway users and workers alike. In 2003, national fatalities in work zones totaled 1,068. This number included 117 pedestrians, most of whom were construction workers, and 943 vehicle drivers and occupants.[11]

[11] Draft Strategic Highway Safety Plan

STRATEGIES

California intends to employ the following strategies to reduce work zone fatalities:

1. Enhance safe driving through work zones with education and enforcement.
2. Improve traffic control in work zones.
3. Reduce worker exposure and improve worker visibility.
4. Apply advanced technology to enhance work zone area.
5. Improve data collection and analysis.

SCAG RESPONSE

Work with the State and county transportation commissions to determine if various project submissions have potential benefit to safety in this challenge area.

CHALLENGE 15 : IMPROVE POST CRASH SURVIVABILITY

Goal: By 2010, reduce crash-related fatalities in California at least 5 percent from their 2004 level through focused improvements in Emergency Medical Services (EMS) system communications, response and safety education.

In researching this challenge area, the Challenge Area Team noted:

> In 2004 data showed 302,176 persons in California required Emergency Medical Service (EMS) response as a result of a serious motor vehicle collision[12].
>
> Challenge Area 15's focus is on the person that survives a serious motor vehicle collision. Improving EMS response time to the collision, transport time, and interfacility transfer time (when appropriate) will result in achieving the targeted "Golden Hour" (the time period from the incident until the victim receives definitive specialized trauma care; ideally no longer than 60 minutes) Adherence to the "Golden Hour" concept is critical to survival and optimum outcome.
>
> The first peak in post crash deaths is within seconds or minutes of injury. If the number of these deaths is to be reduced, it must be through effective prevention programs. The second peak in deaths occurs within the first four hours after incident and is due to undiagnosed and untreated injuries. These patients, whose numbers are significant, would benefit most from appropriate level of trauma care. Regionalized trauma care facilitates rapid transport to the nearest trauma center appropriate for the severity of injury. These complications can be positively affected by prompt initial resuscitation efforts in an appropriate level trauma center.

[12] Statewide Integrated Traffic Records System (SWITRS) - www.chp.ca.gov/switrs/

STRATEGIES

California intends to employ the following strategies to improve post-crash survivability:

1. Improve technology for locating crash sites and for improving EMS access routes and response times.
2. Ensure interoperability of communications systems between all responders to crash sites.
3. Improve patient transportation and destination from crash location.
4. Increase availability of appropriate-level trauma centers, with emphasis on rural areas.
5. Improve access to trauma-related training courses for Emergency Medical Technicians and paramedics.
6. Encourage Emergency Medical Dispatch programs to train dispatchers to assist victims awaiting arrival of EMS.
7. Improve data access to meet the needs of EMS.
8. Increase public access to first aid, cardio pulmonary resuscitation CPR, and automated external defibrillation training.

SCAG Response

- Utilize Intelligent Transportation System technology to improve response time for EMS to and from collision sites.

CHALLENGE 16 : IMPROVE SAFETY DATA COLLECTION, ACCESS AND ANALYSIS

Goal: Improve the quality, timeliness, accessibility, and usefulness of traffic safety data.

STRATEGIES

California intends to employ the following strategies to improve safety data collection, access, and analysis:

1. Improve the quality, completeness, and uniformity of data collection practices.
2. Improve data sharing among State, federal, and local agencies and stakeholders.
3. Improve accessibility to real-time information by California roadway users.
4. Enhance accessibility of traffic safety data.
5. Improve data collection and analysis regarding trip characteristics of all roadway users, level of service, injuries, and fatalities on California road ways.
6. Coordinate traffic safety information system improvements through the State Traffic Records Coordinating Committee.

SCAG RESPONSE

- Work with the State and county transportation commissions to improve the quality, timeliness, accessibility and usefulness of traffic safety data.
- Publish SHSP safety data and statistics in the annual State of the Region or State of the Commute report.

Transportation Safety Strategic Plan

This final section is intended to summarize the existing and future conditions set forth in the previous sections. This strategic plan is meant as a guide for envisioning transportation safety planning throughout the SCAG region.

POLICIES

Ensure transportation safety, security, and reliability for all people and goods in the region.

GOALS AND OBJECTIVES

Reduce the absolute number of traffic fatalities to below that called for in each section of the California Strategic Highway Safety Plan.

POLICIES AND RECOMMENDATIONS

1. Reduce Impaired Driving Related Fatalities
    a. SCAG can support local jurisdictions and State authorities in their implementation of Challenges where SCAG has no role.
2. Reduce the Occurrence and Consequence of Leaving the Roadway and Head-on Collisions
    a. Work with subregions and county transportation commissions to continue to incorporate into highway construction/reconstruction methods to warn drivers (such as rumble strips, "zot dots," pavement markers, curve warning signs/beacons) they are leaving the highway or wandering into other lanes.
    b. Support the continuing deployment of high visibility signage and road striping that enhance driver's ability to notice, recognize and respond to warning signs during night time or periods of inclement weather.
3. Ensure Drivers are Licensed and Competent
    a. SCAG can support local jurisdictions and State authorities in their implementation of Challenges where SCAG has no role.
4. Increase Use of Safety Belts and Child Safety Seats
    a. SCAG can support local jurisdictions and State authorities in their implementation of Challenges where SCAG has no role.
5. Improve Driver Decisions about Rights of Way and Turning
    a. Support the use of traffic control devices, traffic calming, and speed-reduction design practices to reduce the likelihood and severity of crashes related to turning movements.
    b. Support improved roadway geometrics to restrict unsafe turns by motor vehicles.
    c. Support the use of advanced technology and ITS to reduce collisions.
6. Reduce Young Driver Fatalities
    a. SCAG can support local jurisdictions and State authorities in their implementation of Challenges where SCAG has no role.
7. Improve Intersection and Interchange Safety for Roadway Users
    a. Incorporate intersection safety into the compass blueprint strategy.
    b. Incorporate ITS at high incident intersections to reduce red-light violations causing collisions.
    c. Encourage clearly marked, visible crosswalks
    d. Encourage the installation of improved visibility traffic signals as part of the normal traffic signal replacement cycle.
    e. Encourage development of median sanctuaries for pedestrians
    f. Support signalization at problem non-signalized intersections
    g. Encourage changing intersection geometries, where applicable. (offset intersection to aligned intersection, intersection to interchange, intersection to roundabout)

8. Make Walking and Street Crossing Safer
    a. Incorporate pedestrian safety into smart growth, land use planning, and other local plans.
    b. Enhance the enforcement of violations of pedestrian law by pedestrians and motorists.
    c. Educate all roadway users regarding the rights and responsibilities of pedestrians.
    d. Promote and improve roadway safety infrastructure for pedestrians including the use of advanced technology.
    e. Improve the visibility of pedestrians on the roadway.
    f. Improve the safety of pedestrians traveling to and from schools.
    g. Improve data collection and analysis regarding pedestrian trip characteristics, level of service, injuries and fatalities on California roadways.
    h. Improve pedestrian safety expertise among transportation professionals and others involved in the design process.
    i. Consider pedestrian needs in all roadway and transit projects
9. Improve Safety for Older Roadway Users
    a. Support JARC/New Freedom, paratransit to include those over 65 years of age.
    b. Support roadway, intersection and interchange improvements that support improving rights of way decision by older drivers.
    c. Encourage formation and expanded use of Supplemental Transportation Systems (STPs), particularly in locations where standard public transit is sparse or unavailable.
    d. Support signage and striping that enhance driver's ability to notice, recognize and respond to warning signs during night time and/or inclement weather conditions.
10. Reduce Speeding and Aggressive Driving
    a. Work with the State and county transportation commissions to determine if various project submissions have potential benefit to safety in this challenge area.
11. Improve Commercial Vehicle Safety
    a. Support the use of dedicated truck capacity on corridors with significant truck traffic in order to separate commercial vehicles from passenger vehicles.
    b. Support t the continued modernization of intersections and interchanges prone to high commercial vehicle collisions to promote safety
    c. Support the use of truck climbing lanes as a method to segregate commercial vehicles from passenger vehicles.
12. Improve Motorcycle Safety
    a. Work with the State and county transportation commissions to determine if various project submissions have potential benefit to safety in this challenge area.
13. Improve Bicycling Safety
    a. Encourage the addition of dedicated bicycle facilities where appropriate and safe.
    b. Encourage all local jurisdictions to incorporate safety in their bicycle transportation plan updates.
    c. Incorporate applicable Complete Streets policies – providing safe access for all modes – as fundamental principles of transportation plans
    d. Encourage the consideration of bicycle and pedestrian safety as part of Blueprint Land Use Planning.

e. Encourage pedestrian and bicycle safety in all maintenance projects where new striping will be required or existing striping is to be replaced

f. Encourage the use of intersection control devices that detect bicyclists, particularly left turn signals

14. Enhance Work Zone Safety

a. Work with the State and county transportation commissions to determine if various project submissions have potential benefit to safety in this challenge area.

15. Improve Post Crash Survivability

a. Utilize Intelligent Transportation System technology to improve response time for EMS to and from collision sites.

16. Improve Safety Data Collection, Access and Analysis

a. Work with the State and county transportation commissions to improve the quality, timeliness, accessibility and usefulness of traffic safety data.

b. Publish SHSP safety data and statistics in the annual State of the Region or State of the Commute report



SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2008
RTP REGIONAL TRANSPORTATION PLAN

Making the Connections

Environmental Justice Report

ENVIRONMENTAL JUSTICE

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"No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

- Title VI of the Civil Rights Act of 1964

Overview

BACKGROUND

The U.S. Environmental Protection Agency (EPA) defines environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies." Additionally, "it will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work."

The environmental justice movement stems from Title VI of the Civil Rights Act of 1964. Title VI of the Civil Rights Act of 1964 provides one very significant means by which the public can seek greater accountability from transportation agencies. Title VI states that "No person in the United States shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Additionally, Title VI not only bars intentional discrimination, but also unjustified disparate impact discrimination. Disparate impacts result from policies and practices that are neutral on their face (i.e., there is no evidence of intentional discrimination), but have the effect of discrimination on protected groups.[1]

Under federal policy, all federal agencies must make environmental justice part of their mission and adhere to three fundamental environmental justice principles:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Environmental justice is an integral part of the planning process, which must be considered in all phases of planning. As the designated Metropolitan Planning Organization (MPO) for six counties, the Southern California Association of Governments (SCAG) is mandated by the federal government to prepare a Regional Transportation Plan (RTP) every four years to address the region's transportation needs. The previous RTP was adopted in April 2004. The RTP represents the collective vision of the six counties in the SCAG region and provides a framework for the future development of our regional transportation system.

SCAG'S Environmental Justice Policy

As a government agency that receives federal funding, SCAG seeks to achieve, at a minimum, compliance with federal environmental justice principles, policies, and regulations described above. As such, SCAG's goal is to ensure that its programs and plans do not create disproportionate adverse impacts for low-income and minority people in the region. The following outlines SCAG's environmental justice compliance policy.[2]

- SCAG is committed to being a leader among the nation's metropolitan planning organizations in its analysis of the environmental, health, so-

[1] CommunityLink 21, Regional Transportation Plan: Equity and Accessibility Performance Indicators http://www.fhwa.dot.gov/environment/ejustice/case/case4.htm

[2] http://scag.ca.gov/environment/pdfs/ej_title6.pdf

cial, and economic impacts of its programs on minority and low-income populations.

- SCAG will provide early and meaningful public access to decision making processes to all interested parties, including minority and low-income populations.
- SCAG will seek out and consider the input of traditionally underrepresented groups, such as minority and low-income populations, in the transportation planning process.
- When disputes arise, it is SCAG's adopted policy to make the fullest possible use of alternative dispute resolution (ADR) techniques, including mediation and consensus building.
- When disproportionately high and adverse impacts on minority or low-income populations are identified, SCAG will take steps to propose mitigation measures or consider alternative approaches.
- SCAG will continue to evaluate and respond as needed to environmental justice issues that arise during the implementation of regional plans.

Transportation investment decisions are largely a product of long-range planning. With billions of dollars at stake, local, regional, and state transportation agencies develop long-range plans to set spending priorities. Ensuring that the benefits of these investments are distributed equitably is an important element of environmental justice. This section discusses SCAG's environmental justice efforts in the long-range transportation planning process.

Regulatory Requirements

In the 1990's, the federal executive branch issued orders on environmental justice that amplified Title VI, in part by providing protections on the basis of income as well as race. These included President Clinton's Executive Order 12898 (1994) and subsequent U.S. Department of Transportation (DOT) and Federal Highway Administration orders (1997 and 1998, respectively), along with a 1999 DOT guidance memorandum. These are further described below.

As previously described, Title VI of the Civil Rights Act of 1964 states that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." In short, Title VI makes MPOs accountable for their planning and investment decisions. Title VI became the legal underpinning for the environmental justice movement.

On February 11, 1994, President Clinton signed Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations in response to growing concern over environmental effects on minority and low-income communities, including human health, social, and economic effects. Executive Order 12898 requires each Federal agency, to the greatest extent allowed by law, to administer and implement its programs, policies, and activities that affect human health or the environment in order to identify and avoid "disproportionately high and adverse" effects on minority and low-income populations.[3]

In April 1997, DOT Order on Environmental Justice to Address Environmental Justice in Minority Populations and Low-Income Populations (DOT Order 5610.2) was issued. Reaffirming the principles set forth by Title VI and Executive Order 12898, this generally described the process for incorporating social, economic, environmental, public health and welfare, and public involvement into all DOT existing programs, policies, and activities.[4]

In December 1998, the Federal Highway Administration (FHWA) issued FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (DOT Order 6640.23). This requires the FHWA to implement the principles of the DOT Order 5610.2 and Executive Order 12898 by incorporating environmental justice principles in all FHWA programs, policies and activities.[5]

[3] http://www.fhwa.dot.gov/environment/ejustice/facts/index.htm

[4] Ibid.

[5] Ibid.

Executive Order 12898 and the DOT Orders were further clarified in a Memorandum jointly issued by FHWA and the Federal Transit Administration (FTA) on October 7, 1999. The Memorandum, Implementing Title VI Requirements in Metropolitan and Statewide Planning, emphasized the importance of incorporating environmental justice principles during transportation project development as well as in the processes and products of transportation planning. Compliance with Title VI is normally evaluated by the federal Department of Transportation during triennial certification reviews of metropolitan planning organizations such as SCAG. The Memorandum provides clarification for field offices on how to ensure that environmental justice is considered during current and future planning certification reviews. Additionally, this included a set of questions to be used by FTA regional and FHWA division administrators during certification reviews. The questions make clear that DOT expects MPOs to analyze the equity of service and the distribution of the associated impacts on minority and low-income groups. In addition, MPOs are expected to reach out to traditionally underrepresented groups, even to the extent of providing financial assistance, to assure that they can participate meaningfully in the transportation planning process.[6]

Snapshot of the Region

SCAG functions as a Council of Governments (COG) and has evolved as the largest of nearly 700 COGs in the United States. SCAG also functions as the MPO for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial. As such, it is governed by a Regional Council consisting of 76 local elected officials from around the six-county region. As the MPO, SCAG is mandated by the federal government to research and draw up plans for transportation, growth management, hazardous waste management, and air quality.

The SCAG region is uniquely large, with geographically dispersed commercial and residential centers. The region encompasses a population exceeding 18 million persons in an area of more than 38,000 square miles. The region includes heavily urban and entirely rural areas, as well as terrain features that make air quality goals difficult to achieve. Demographically, it is one of the most diverse regions in the country, already becoming the first to experience a white minority, and encompassing the extremes in household income. Furthermore, it is projected to continue to experience dramatic population growth (see Table 1: Projected Demographic Changes in the SCAG Region, 2008-2035).

Since 2000, population in the region has increased by almost 1.5 million or about 300,000 per year, matching its highest level of average annual increase during the 1980s. During the year 2005, the SCAG region added 222,000 residents, close to 9 percent of the total growth in the nation. By the end of 2005, the total population in the region reached over 18.2 million, representing 6.1 percent of the population in the nation and close to half in the state.[7] According to the Baseline forecast, the region will add 5.9 million people to reach 24 million people by 2035. Supporting this population in 2035 will be 2.5 million new jobs for a total of 10.3 million. This level of population growth is expected to yield 2 million additional households in the region at an average of three persons per household.

[6] http://scag.ca.gov/environment/pdfs/ej_title6.pdf

[7] http://scag.ca.gov/publications/pdf/2006/SOTR06/SOTR06_Population.pdf

TABLE 1 PROJECTED DEMOGRAPHIC CHANGES IN THE SCAG REGION, 2008-2035

Region	2008	2035
Population	18,909,603	24,056,246
Households	5,926,983	7,710,312
White	35.2%	23.4%
Non-white	64.8%	76.6%
African American	7.0%	6.1%
American Indian	0.4%	0.5%
Asian/ Pac. Islander	10.6%	11.4%
Other	2.8%	3.2%
Hispanic	44.0%	55.4%
Over 65	10.2%	15.9%
Disabled	8.5%	9.4%
Below Poverty*	13.7%	14.5%
Below 1.5 x Poverty	8.6%	9.1%
Below 2 x Poverty	8.3%	8.5%
Income Quintile 1	20.0%	20.0%
Income Quintile 2	20.0%	20.0%
Income Quintile 3	20.0%	20.0%
Income Quintile 4	20.0%	20.0%
Income Quintile 5	20.0%	20.0%

One important demographic dynamic at work in Southern California includes the continuing change in the ethnic/racial composition. The share of the Hispanic population reached 44 percent in 2005, about a 4 percent increase from 2000 and a dramatic increase from only 10 percent in 1960. The share of the Asian/Pacific Islander population increased from 2 percent in 1960 to over 11 percent in 2005. Since 1960, the share of the non-Hispanic White population declined from about 80 percent to 39 percent in 2000 and 36 percent in 2005. The share of African-American population in the region was just below 7 percent in 2005. Since 2000, the vast majority (80 percent) of the growth in the region were Hispanics.[8]

Between 2000 and 2005, the SCAG region performed better every year in job growth rates relative to the rest of the state and the nation. In 2005, the region achieved a slightly higher rate of job growth (1.7 percent) than the rest of the state (1.4 percent) and the nation (1.5 percent).[9]

In 2005, the region achieved its lowest unemployment rate (5 percent) since 1988, and a slightly lower unemployment rate than the national average, the first time since 1990. From 2004 to 2005, the unemployment rate in the region dropped from 6 percent to 5 percent. During the same period, the unemployment rate declined from 5.5 to 5.1 percent nationally, while it dropped from 6.2 to 5.4 percent in the state.[10]

In the SCAG region, 14 percent of residents lived in poverty in 2005, a slight decrease from 2004 (14.3 percent) though continuing to be higher than that of the state (13.3 percent) and the nation (12.6 percent). In addition, about 20 percent of children under 18 were below the poverty line in 2005, little changed from 2000. The poverty rate was highest for female-headed households (25 percent) and lowest for persons aged 65 and over (8.9 percent). In 2005, the SCAG region continued to have the highest poverty rate (14 percent) for all people among the nine largest metropolitan regions in the nation followed by the Dallas region (13.3 percent), while the Washington D.C. region achieved the lowest poverty rate of only 7.9 percent.[11]

Public Involvement in Transportation Planning

The awareness and involvement of interested persons in governmental processes are critical to successful regional transportation planning and programming. When the public is engaged in the process, their feedback helps as-

[8] Ibid.

[9] http://scag.ca.gov/publications/pdf/2006/SOTR06/SOTR06_Economy.pdf

[10] Ibid.

[11] http://scag.ca.gov/publications/pdf/2006/SOTR06/SOTR06_Economy.pdf

sure projects address community needs. Likewise, the public gains a better understanding of the tradeoffs and constraints associated with transportation planning. To ensure compliance with federal and state requirements, SCAG is required to implement a public involvement process to provide complete information, timely public notice and full public access to key decisions and to support early and continuing public involvement in developing its regional plans.

As a metropolitan planning organization, SCAG is responsible for preparing and utilizing a Plan which is developed in consultation with all interested parties and provides reasonable opportunities for interested parties to comment on the content of SCAG's Regional Transportation Plan (RTP), pursuant to the "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users" (SAFETEA-LU), Pub. L. No. 109-59, Title VI, Section 6001(a), 119 Stat. 1839 (Aug. 10, 2005).

Public outreach efforts are intended to assure that all members of the public have an opportunity to participate meaningfully in the planning process. An in-depth description of SCAG's RTP public outreach efforts is included in a previous section, Overview of the Regional Transportation Plan. This is summarized below.

- Compliance Procedure for Environmental Justice in the Transportation Planning Process

  In October 2000, SCAG released the Compliance Procedure for Environmental Justice in the Transportation Planning Process, which provided a detailed description of SCAG's public outreach activities. Since its publication, SCAG staff has utilized this guidance document to ensure that it 1) includes traditionally unrepresented groups early and throughout the planning process; 2) carefully examines performance measures to determine any inequities of the RTP on any group; 3) and follows the self-evaluation procedure for public outreach and environmental justice analysis programs.

- Create departmentally Integrated Core Outreach Team

  SCAG holds regular coordination meetings with the principal staff in all planning areas and consultants associated with each of the various outreach efforts.

- Update Existing and Create New Presentation Materials

  SCAG provides clear, consistent and concise primary messages for media and public involvement and interaction using a variety of formats: powerpoints, fact sheets, surveys, brochures, maps, white papers, newsletter (eVision).

- Enhance Website Capabilities

  SCAG utilizes its website to provide information on the RTP. SCAG works to ensure that the information available is timely, easy-to-understand and accessible and that the website is compliant with the 1990 Americans with Disabilities Act. SCAG's RTP and the environmental justice program have individual websites dedicated to each.[12]

- Coordinate Outreach Efforts with other Stakeholder Organizations

  Together with subregional partners and other stakeholder organizations, SCAG notifies interested parties through traditional meeting announcements, newspapers, public service announcements, press releases, special mailers, publications and agendas of committees, meetings, workshops, briefings, web site postings, email communications and other opportunities to participate, as appropriate.

- Create an Outreach Schedule

  SCAG proactively contacts groups to schedule speakers from the pool of available speakers, as appropriate, to meet the interests of the particular group. Additionally, SCAG conducts presentations, briefings, workshops, and hearings to diverse groups and organizations throughout the region.

- Conduct Public Workshops related to the RTP

[12] RTP Website: http://scag.ca.gov/rtp2008/
EJ Website: http://scag.ca.gov/environment/ej.htm

Announcement of public workshops are transmitted via printed materials, on SCAG's website, and in local newspapers. Workshops are held throughout the planning process and target minority and low-income communities throughout the region. Follow-up workshops are held with groups that want to stay involved throughout the planning cycle. Translation services are provided at some of the public workshops.

- Reach Out to Traditionally Underrepresented and/or Underserved Audiences

  SCAG works with its Member Relations staff and Subregional Coordinators to aid in identifying underrepresented segments of the region. SCAG coordinates with individuals, institutions or organizations to reach out to members in the affected minority and/or low income communities.

- Consider and Incorporate Comments Received into the Deliberations Regarding Proposed Plans and Programs

  This involves review and consideration of all public comments in the regional transportation planning process. Additionally, SCAG will record, track and maintain a log of comments and SCAG's response to the comments within the Communication Management Software System (CMS), SCAG's contact database system.

- Evaluate Public Participation Activities

  SCAG evaluates public participation efforts so that necessary modifications can be made. This enhances the outreach program to better serve the underrepresented segments of the region.

As part of the environmental justice outreach effort, SCAG compiled a list of key stakeholders that will be used for environmental justice outreach efforts. This list is comprised of persons and organizations involved with the 2004 RTP as well as additional stakeholders, such as the South Coast Air Quality Management District's (SCAQMD) Environmental Justice Working Group. Key stakeholder groups included non-profit organizations, advocacy groups, American Indian tribes, neighborhood coalitions, environmental and public health organizations, industry, business owners, and other interested parties. There are currently 150 members. SCAG actively solicits input on the stakeholder list.

On September 19, 2007, SCAG held the first Environmental Justice Workshop for the 2008 Regional Transportation Plan (RTP) at the main office in downtown Los Angeles, with videoconferencing available at the Inland Empire SCAG office. Spanish translation was made available for participants. Workshop information was disseminated via electronic and paper notices mailed to the stakeholder list and follow up phone calls to organizations lacking email addresses. Additionally, SCAG's website was utilized to provide information to the public.

The intent of the Workshop was threefold: 1) present general information on SCAG's Environmental Justice Program; 2) review the previous environmental justice analysis in the 2004 RTP; and 3) obtain input from the public on the environmental justice analysis for the 2008 RTP. There were approximately 17 participants in attendance representing various stakeholder groups, which included non-profit organizations, advocacy groups, neighborhood coalitions, environmental and public health organizations, industry, business owners, and other interested parties. The public comments received were recorded and have been considered by SCAG in the development of the 2008 RTP. Input was also received on the stakeholder list. These organizations and/or persons were added to the existing outreach list.

SCAG is committed to building partnerships with key stakeholder groups in order to ensure that underrepresented communities are fully engaged throughout the planning process. Outreach activities were conducted throughout the region and presentations were made to various community-based organizations. As part of the ongoing outreach efforts, a number of workshops were scheduled after the release of the Draft 2008 RTP. Below is a sample of these workshops.

- January 15, 2008: RTP presentation to the Port of Los Angeles Port Community Advisory Committee (PCAC) in Wilmington.

- February 12, 2008: RTP presentation to the Latino Urban Forum at the Los Angeles County Metropolitan Transportation Authority office in Los Angeles.
- February 23, 2008: RTP presentation to the NAACP in the city of Lake Elsinore.
- March 20, 2008: RTP presentation to the Greater Riverside Hispanic Chamber of Commerce in the City of Riverside.

Methodology

A central component of long-range plan development is measuring how well the plan is able to achieve the goals of a community. As such, the goal of the 2008 RTP environmental justice analysis is to ensure that when transportation decisions are made, low-income and minority communities have ample opportunity to participate in the decision-making process and receive an equitable distribution of benefits and not a disproportionate share of burdens.[13]

IDENTIFYING DEMOGRAPHIC GROUPS

Identifying low-income and minority populations is necessary both for conducting effective public participation and for assessing the distribution of benefits and burdens of transportation plans and projects. For the purposes of this analysis, SCAG focused on all low-income groups and minority populations. The definitions are provided below.

ETHNICITY/RACE

This phase of the analysis attempts to identify environmental impacts of the RTP that have the potential to affect different ethnic/racial groups. An environmental justice analysis must begin with demographic information, specifically, information on whether minority and low-income groups are present in the area affected by an agency plan. SCAG bases its analyses on the latest census data for ethnic/racial groups in the SCAG region, by census tract and by transportation analysis zone (TAZ).

Executive Order 12898 and the DOT and FHWA Orders on Environmental Justice define "minority" as persons belonging to any of the following groups, as well as "other" categories that are based on self-identification of individuals in the U.S. Census[14]:

- Black - a person having origins in any of the black racial groups of Africa.
- Hispanic - a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- Asian - a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.
- American Indian and Alaskan Native - a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition.
- Native Hawaiian or Other Pacific Islander - a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

The population in the SCAG region identified as minority comprises over 70 percent of the population. The predominant minority groups are Hispanics and Asian/Pacific Islanders, which combine to account for 66 percent of the total minority population within the SCAG region.

POVERTY LEVEL

Poverty level is a federally established income guideline used to define persons who are economically disadvantaged, as defined by the U.S. Department of Health & Human Services guidelines.[15] The poverty level applicable to the

[13] Caltrans. Desktop Guide: Environmental Justice in Transportation Planning Investments. January 2003.

[14] http://www.fhwa.dot.gov/environment/ej2000.htm

[15] White House Council on Environmental Quality (CEQ). Environmental Justice Guidance Under the National Environmental Policy Act, December 1997.

SCAG region is chosen on the basis of regional average household size for the census year. For example, for a regional mean of 2.98 persons - rounded to 3 - per household, the threshold would consist of the sum of the value for the first person plus two additional people. The household counts in each income range are then used to determine the number and percentage of households in each census tract below the poverty level. In 2007, a family of three earning less than $17,170 was classified as living in poverty.[16]

INCOME

In addition to complying with federal guidance, SCAG also conducts income equity analyses based on five income quintiles. A quintile, by definition, is a category into which 20 percent of the ranked population falls. For each new analysis, SCAG defines regional income quintiles based on the most recent census data on household income. Once the income quintiles are established, the incidence of benefits and costs can be estimated and compared across these income categories. In addition, the demographics of any area smaller than the region can be analyzed in terms of the percentage of its population in each of the income quintiles. For example, income quintiles are fifths of the region's households, Quintile 1 represents the lowest fifth of households in terms of annual income and Quintile 5 the highest fifth of households.

TABLE 2 DEMOGRAPHIC CATEGORIES

Ethnic/Racial/Other Categories (persons)	Income Categories (households)
White (Non-Hispanic)	Below Poverty Level
African-American	100% - 150% of Poverty Level
American Indian	150% - 200% of Poverty Level
Asian/Pacific Islander	Income Quintile 1 (lowest)
Hispanic (Latino)	Income Quintile 2
Other	Income Quintile 3
Disabled/Mobility Limited	Income Quintile 4
Age 65 and Above	Income Quintile 5

[16] http://aspe.hhs.gov/poverty/07poverty.shtml

TABLE 3 INCOME DISTRIBUTION

Income Quintiles	Income Range
Income Quintile 1 (lowest)	$0 to $19,360
Income Quintile 2	$19,361 to $36,340
Income Quintile 3	$36,341 to $57,323
Income Quintile 4	$57,324 to $91,402
Income Quintile 5	$91,403 and higher

Source: U.S. Census Bureau (2000)

DATA SOURCES

U.S. CENSUS

Data availability is critical in conducting an environmental justice analysis. Limited datasets or lack, thereof, can hinder an informed analysis of specific issues. Both "short form" information (Questions asked of all Americans, including age, race, and ethnicity) and "long form" data (Questions sent to a sample of one in six households, which include additional information, such as income, employment status, education level, place of work, commuting travel mode and trip length, disability, language, and housing conditions) were utilized.[17]

Data sources used in this evaluation included the 2000 Census which provided detailed and accurate information at local geographic levels. For the purposes of this study, census data was analyzed using TAZ. A TAZ is an area delineated by state and/or local transportation officials for tabulating traffic-related data, especially journey-to-work and place-of-work statistics. TAZs usually consist of one or more census blocks, block groups, or census tracts. TAZ layers are not available for the entire nation, but are available for most major urban areas. The 2000 Census is the first to report data at the TAZ level. To analyze

[17] Caltrans. Desktop Guide: Environmental Justice in Transportation Planning Investments. January 2003.

the distribution of regional transportation plan benefits, data at the TAZ-level is generally considered adequate.[18]

GEOGRAPHIC INFORMATION SYSTEMS

Geographic Information Systems (GIS) tools are often the most useful for evaluating and communicating the information above. A standard desktop computer with GIS software is capable of extensive environmental justice evaluation using 2000 Census data. For this analysis, SCAG utilized a number of GIS datasets, such as demographic distribution, air emissions, aviation and highway impact areas, and parks.

AMERICAN HOUSING SURVEY

Every year, the American Housing Survey collects detailed data on housing stock, which includes race, income, household size, and work trip information. The data is gathered for the same 55,000 housing units nation-wide. In addition to this broad national sample, the survey is conducted for 47 metropolitan areas every 4 years, including the following seven metropolitan areas in California: Anaheim-Santa Ana, Los Angeles-Long Beach, Oakland, Sacramento, San Diego, San Francisco, and San Jose. In these areas, the American Housing Survey can be helpful to update older census data.[19]

NATIONAL HOUSEHOLD TRAVEL SURVEY

Formerly the National Personal Transportation Survey (NHTS), the National Household Travel Survey data source is useful for non-work transportation trips, and detailed information about travel modes. NHTS is a U.S. Department of Transportation (DOT) effort sponsored by the Bureau of Transportation Statistics (BTS) and the Federal Highway Administration (FHWA) to collect data on both long-distance and local travel by the American public. The joint survey gathers trip-related data such as mode of transportation, duration, distance and purpose of trip. It also gathers demographic, geographic, and economic data for analysis purposes. The most recent survey was prepared in 2001.[20]

The Analysis

MOBILITY VS. ACCESSIBILITY

The environmental justice analysis for the 2008 RTP aims at improving and refining the analysis conducted for the 2004 RTP. The role of the transportation system is to enable people to reach their desired destinations in the most convenient and efficient manner. As such, a basic goal of the 2008 RTP is to "maximize mobility and accessibility for all people and goods in the region." Mobility is the ability to travel and the potential for movement. It reflects the spatial structure of the transportation network and the level and quality of its service. Mobility is determined by such characteristics as road capacity and designed speed and, in the case of automobile mobility, by how many other people are using the roads. In contrast, accessibility measures how well the transportation system provides people access to opportunities.

Similar to the methodology applied to the 2004 RTP environmental justice analysis, accessibility was used as a performance measure instead of mobility. In general, accessibility has two critical advantages over mobility. First, it allows for comparison of alternative land use and transportation policies and focuses upon the level-of-service of the metropolitan system as a whole, rather than just the transportation system. Policies designed to increase the mixing of land uses can be compared to policies designed to increase the capacity of an intersection, for example, by answering the question: what effect does each have on accessibility? Second, accessibility as a planning goal provides clear direction for policy makers. Increased mobility and higher levels of accessibility are positive outcomes.

[18] Ibid.

[19] Ibid.

[20] U.S. Department of Transportation. Available at: http://www.bts.gov/programs/national_household_travel_survey/

THE 2008 RTP PLAN VERSUS BASELINE

The comparison of the Plan versus Baseline is the primary focus of the environmental justice analysis for the 2008 Regional Transportation Plan. The basic concept is to compare the performance of the Plan (2035) to the Baseline scenario for 2035. For the purposes of this analysis, the Plan represents the selected strategy to guide the Region's transportation planning over the next few decades and Baseline is defined as the set of all projects and investments currently underway or for which funds are already committed. Baseline represents "business as usual" and assumes current land use trends and the completion of projects currently under construction or with funding available for construction over the next few years. The data for the analysis is based on the SCAG regional travel demand model results.

PERFORMANCE MEASURES

A central component of long-range plan development is measuring how well the plan is able to achieve the goals of a community. In the development of the RTP, SCAG utilized a number of performance measures designed to assess the overall equity. Performance Measures provide a way to quantitatively assess the impact of the RTP.

- Accessibility (Employment Services and Parks)
- Distribution of Plan Expenditures (Investments)
- Taxes Paid
- Auto Travel Time Savings
- Auto Travel Distance Reductions
- Environmental Impact Analyses (Air Emissions and Noise)

These performance measures were intended to evaluate how low-income and minority communities fared under RTP investments. The performance measures and the results of the analysis are described in detail below.

ACCESSIBILITY TO EMPLOYMENT SERVICES

Accessibility is a foundation for social and economic interactions. As an indicator, accessibility is measured by the spatial distribution of potential destinations, the ease of reaching each destination, and the magnitude, quality, and character of the activities at the destination sites. Travel costs are central: the lower the costs of travel, in terms of time and money, the more places that can be reached within a certain budget and, thus, the greater the accessibility. Destination choice is equally crucial: more destinations and the more varied the destinations, the higher the level of accessibility.[21]

Employment accessibility evaluates how well the transportation system is providing access to jobs for underrepresented populations. In this analysis, employment accessibility is defined as the percentage of total employment opportunities that can be reached within 30 minutes during the PM peak period. SCAG has determined that access to employment is a reasonable proxy for access to all opportunities, since work trips make up a large percentage of total trips during commute periods. Socioeconomic and transportation data are all held at the TAZ level. Socioeconomic data used the income quintiles previously described. These estimates are disaggregated to the TAZ level. For the purposes of this analysis, job accessibility is measured by three modes: 1) automobile; 2) local bus/rail via automobile; and 3) local bus/rail via walking.

[21] CommunityLink 21, Regional Transportation Plan: Equity and Accessibility Performance Indicators http://www.fhwa.dot.gov/environment/ejustice/case/case4.htm

Results

FIGURE 1 COMPARISON OF EMPLOYMENT ACCESSIBILITY IMPROVEMENTS BY TRAVEL MODE AND INCOME CATEGORY (PLAN VS. BASELINE, 2035)

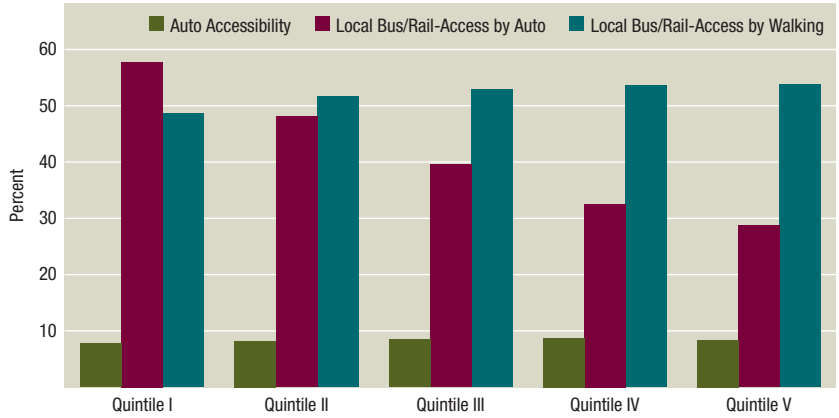


Figure 1: Comparison of Employment Accessibility Improvements by Travel Mode and Income Category shows the percentage improvement between the Plan versus Baseline. It is projected that low-income communities in the region will have higher improvement of access to employment via local bus and rail. This can be attributed to the number of system expansion projects proposed in the 2008 RTP, which includes a number of commuter/light/heavy rail improvements and bus rapid transit expansion projects. Additionally, improvements in accessibility via automobile are expected to be lower than improvements via transit for any quintile group. The results indicate that on a regional scale, no disproportionate impacts are anticipated between income groups as a result of the Plan.

ACCESSIBILITY TO PARKS

Public parks serve all residents. Numerous national parks, state parks, and local parks are all found within the SCAG region. However, not all neighborhoods and people have equal access to these public resources (see Map 1: Distribution of Parks and Low-income Households). Some neighborhoods have more open space, some parks are better maintained, some are built so those with disabilities can enjoy them, and some parks are safer.[22] For the purposes of this analysis, three types of parks were considered: 1) local parks; 2) state parks; and 3) national parks. The acreage of each park type in all TAZs was identified.

Similar to the method in measuring job accessibility, park accessibility is defined as the percentage of park acreage reachable within a 30-minutute off-peak travel time period via 1) automobile; 2) local bus/urban rail via automobile; and 3) local bus/urban rail via walking. Without a weekend regional transportation model system, the existing typical weekday model was utilized for the analysis. Because visits to parks are, by nature, leisure trips, off-peak travel time is used instead of peak travel time. For transit travel time, both the waiting time and the on board time are included.

Figure 2: Park Accessibility by Travel Mode and Income Category shows the access to parks in the Baseline scenario. Park accessibility by transit is much lower than that by automobile for all income groups. However, Quintiles IV and V will have moderately higher access to parks in the region via automobile.

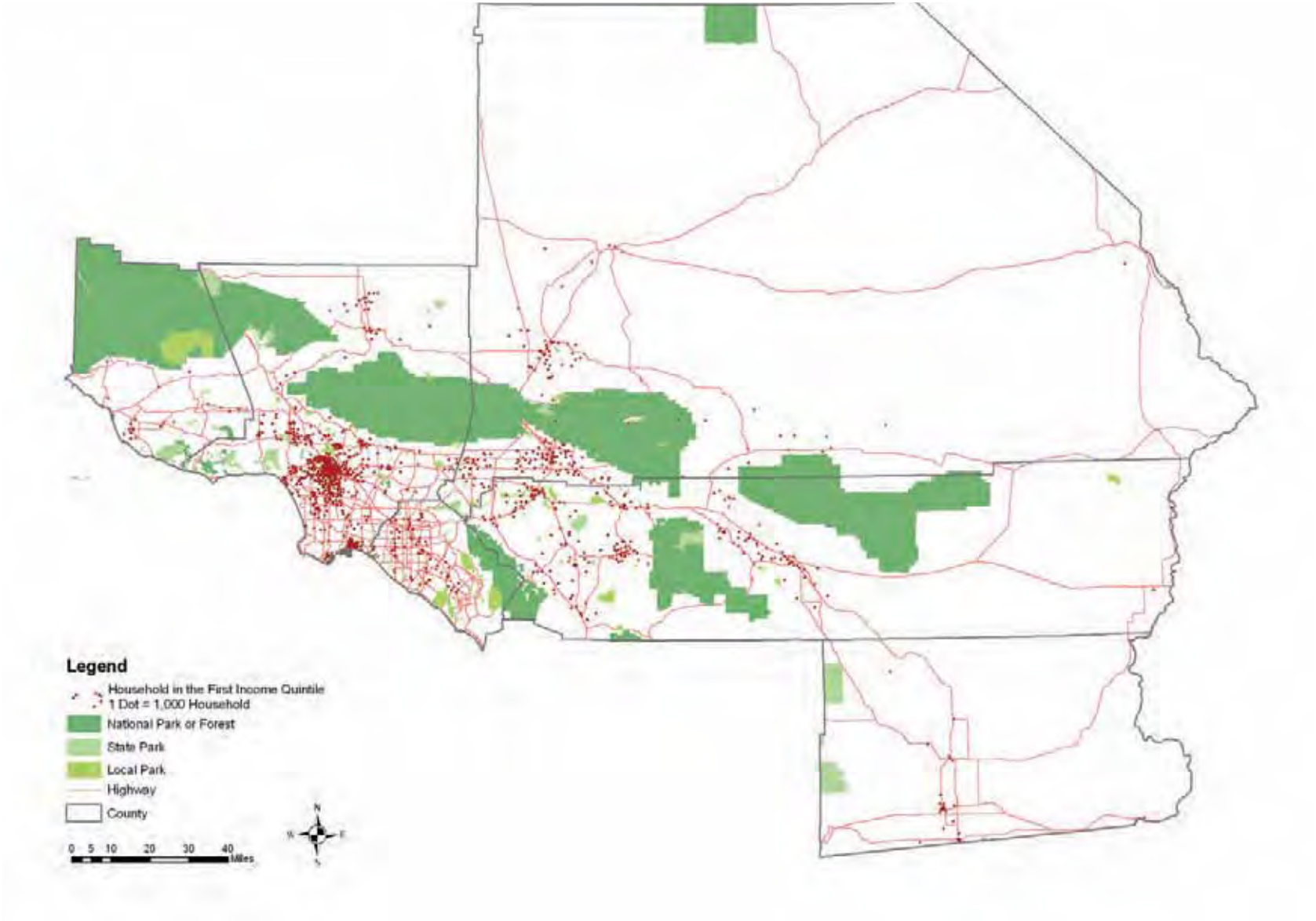
Research has found a complete lack of public transportation services into National Parks[23], but this also appears true for State Parks. There is almost no access to national parks and very limited access to state parks by transit across all income groups in the Baseline scenario (see Figure 3: National Park Accessibility by Travel Mode and Income Category and Figure 4: State Park Accessibility by Travel Mode and Income Category).

The analysis also concluded that accessibility to local parks is mostly via the automobile. Figure 5: Local Park Accessibility by Travel Mode and Income Category reveals that there is limited transit service that accommodates local

[22] Boston Parks Advocates Coalition. Green Paper for the Governor. Available at: http://www.massaudubon.org/PDF/advocacy/2007/EJBos.pdf

[23] Frescas, Ron, Chris Martin, and Christine Steenken. Public Transportation to Local National Forests. April 15, 2004.

MAP 1: DISTRIBUTION OF PARKS AND LOW-INCOME HOUSEHOLDS



Source: Southern California Association of Governments, ESRI StreetMap USA, Teleatlas

parks and, region-wide, there is a marginal difference in accessibility between all income groups.

FIGURE 2 PARK ACCESSIBILITY BY TRAVEL MODE AND INCOME CATEGORY (BASELINE 2035)

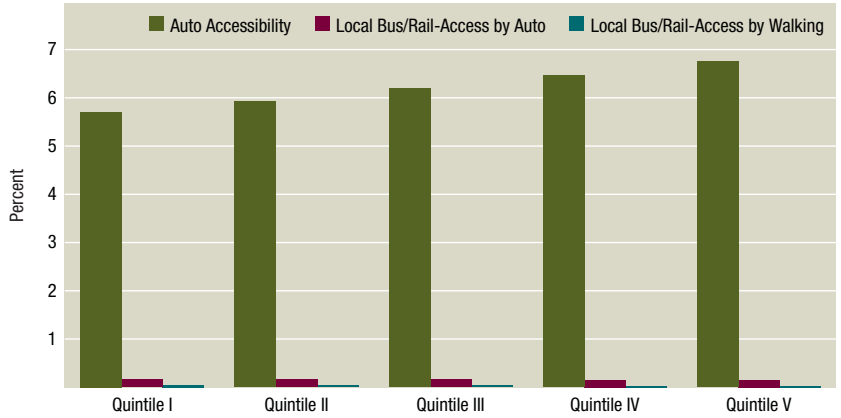


FIGURE 3 NATIONAL PARK ACCESSIBILITY BY TRAVEL MODE AND INCOME CATEGORY (BASELINE 2035)

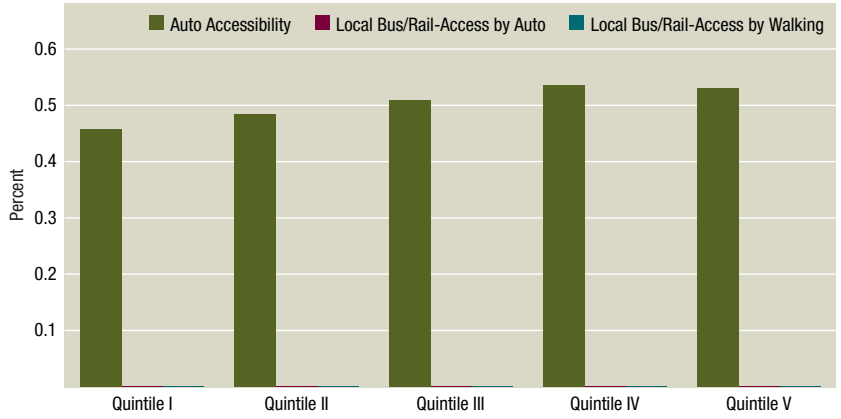


FIGURE 4 STATE PARK ACCESSIBILITY BY TRAVEL MODE AND INCOME CATEGORY (BASELINE 2035)

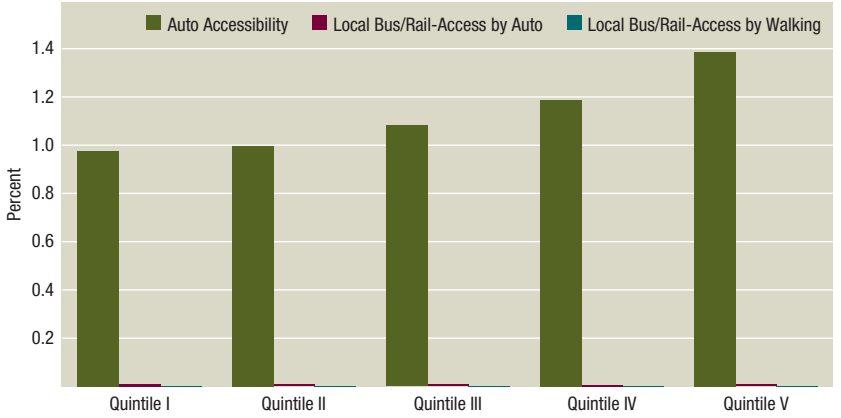


FIGURE 5 LOCAL PARK ACCESSIBILITY BY TRAVEL MODE AND INCOME CATEGORY (BASELINE 2035)

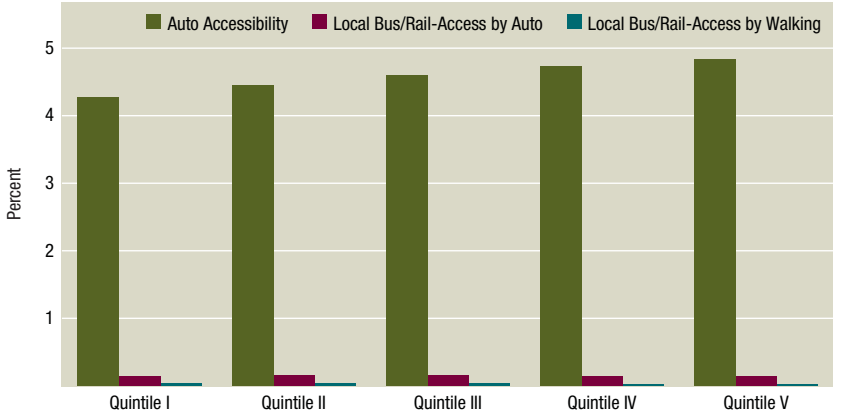
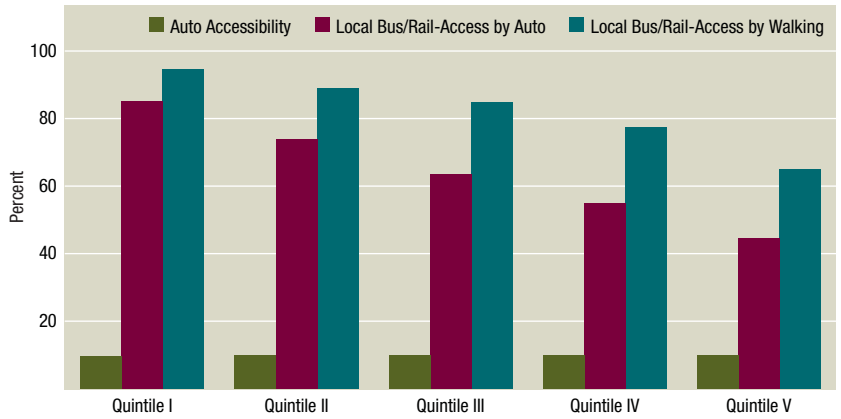


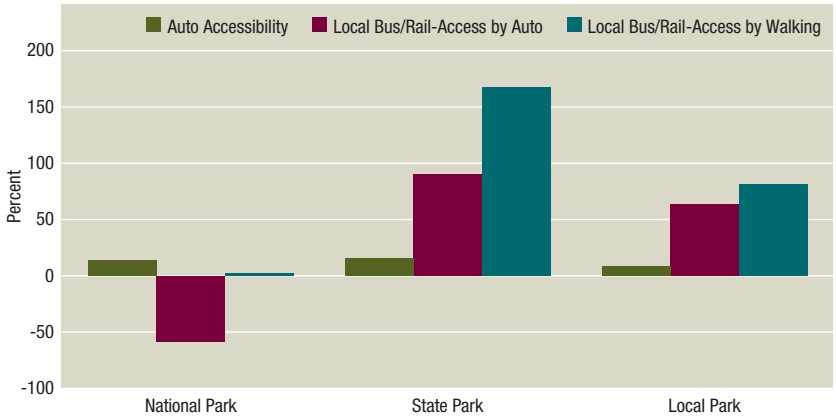
FIGURE 6 COMPARISON OF PARK ACCESSIBILITY IMPROVEMENTS BY TRAVEL MODE AND INCOME CATEGORY (PLAN VS. BASELINE, 2035)



As shown in Figure 6: Comparison of Park Accessibility Improvements by Travel Mode and Income Category, park accessibility for all income groups by three travel modes is expected to improve under the Plan scenario. Low-income and minority communities in the region are anticipated to have higher improvements to access to parks via transit. Accessibility to parks by auto will remain relatively constant for all income groups. Moreover, the improvement of park accessibility by automobile is expected to be lower than the improvement by transit.

Figure 7: Comparison of Park Accessibility Improvements by Park Type and Travel Mode displays the improvement of park accessibility by park type: national park, state park and local parks. The results reveal that there will be significant improvements of accessibility to both state and local parks by all three travel modes. This probably can be attributed to the proximity of these parks to urbanized areas, where population and transportation facilities will be concentrated. However, the accessibility to the national parks shows minor improvement, and even decreases for the mode of local bus/rail-access by auto.

FIGURE 7 COMPARISON OF PARK ACCESSIBILITY IMPROVEMENTS BY PARK TYPE AND TRAVEL MODE (PLAN VS. BASELINE, 2035)



Overall, the park accessibility analysis concluded that all income groups in the region will have greater park accessibility due to infrastructure investments proposed in the 2008 RTP. Although higher income groups have higher park accessibility in the Baseline scenario, low-income groups benefit more by transit. Accessibility to local and state parks shows significant improvement, but the accessibility to national parks has less or even negative improvement. A multi-agency effort must be undertaken in order to further address and remedy the issue of park accessibility.

DISTRIBUTION OF PLAN EXPENDITURES (INVESTMENTS)

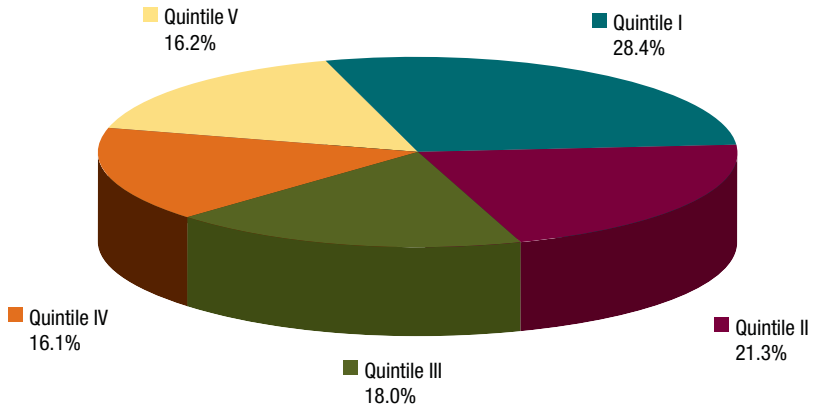
One of the most prominent environmental justice issues concerns the transportation investment strategy, which can impact the transportation choices of low income and minority communities. A disproportionate allocation of resources for various transit investments can indicate a pattern of discrimination. Such was the case in the landmark civil rights class action lawsuit Labor/Community Strategy Center v. Los Angeles County Metropolitan Transportation Authority (MTA) in October 1996. The lawsuit, which eventually led to a court-order Consent Decree, charged that the MTA's investment and service

priorities disproportionately allocated resources to rail transit over bus ridership, an expenditure pattern considered discriminatory to low-income and minority communities. For example, the plaintiffs concluded that 94 percent of MTA's ridership were bus riders, but the agency customarily spent 70 percent of its budget on rail, which constituted 6 percent of its ridership. Other evidence was compiled about disparities in spending on security, subsidies, transit routes and service patterns, overcrowding, and reductions in peak hour bus fleets.[24]

As a regional MPO, SCAG aims to identify and address the Title VI of the Civil Rights Act and the environmental justice implications of its planning processes and investment decisions. As a performance measure, the allocation of transportation investments intends to evaluate whether the 2008 RTP investments are being allocated equitably. The 2008 RTP utilized a benefit assessment method that considered to what extent various socioeconomic groups were receiving value from existing and funded transportation investments. SCAG compared the total share of transportation funding borne by low-income households against other income groups. In this analysis, SCAG reported expenditure distribution in several ways. First, SCAG estimated the share of total RTP expenditures allocated to each category of household income. This was done by totaling expenditures on each type of mode (bus, HOV lanes, commuter/high speed rail, highways/arterials, and light/heavy rail). These expenditures were then allocated to income categories based on each income group's use of these modes.

Results

FIGURE 8 DISTRIBUTION OF PLAN EXPENDITURES BY INCOME CATEGORY



SCAG analyzed the distribution of Plan expenditures based on mode usage information by income quintile. The analysis in the 2004 RTP showed that 57 percent of total public expenditures under the Plan would be on modes most commonly used by the lower three income quintiles, or the lowest 60 percent of the population, in terms of income. While the modes most commonly used by the lowest income group (quintile 1) received the lowest transportation investment in the 2004 RTP, this is reversed in the 2008 RTP analysis. As illustrated in Figure 8: Distribution of Plan Expenditures by Income Category, approximately 28 percent of Plan investments will be invested in modes predominantly used by the lowest quintile group, while 16 percent will be invested in modes used by the highest income category (Quintile V). A total of 68 percent of transportation investments would go to modes likeliest to be used by the lower three income households in the 2008 RTP.

[24] U.S. Department of Transportation. Community Link21, Regional Transportation Plan: Equity and Accessibility Performance Indicators. Available at: http://www.fhwa.dot.gov/environment/ejustice/case/case4.htm

FIGURE 9 DISTRIBUTION OF PLAN EXPENDITURES BY ETHNIC/RACIAL CATEGORY

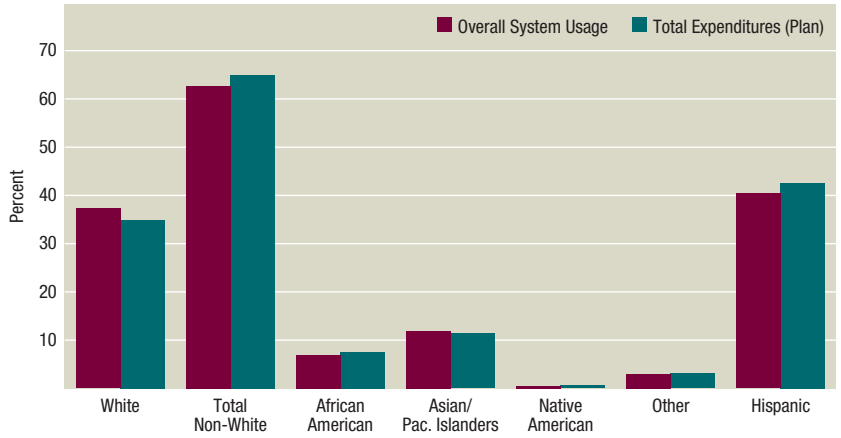


Figure 9: Distribution of Plan Expenditures by Ethnic/Racial Category evaluates the allocation of transportation investments by various ethnic/racial categories. The 2004 RTP showed slight discrepancies between Plan investments and system usage. For Hispanics, the share of Plan investments (42 percent) was greater than this group's share of system usage (40 percent); for Whites, the share of Plan investments was 35 percent, while their system usage was 37 percent; for African-Americans, the share of Plan investments 8 percent) also exceeded their share of system usage (7 percent). The current analysis reveals that under the 2008 RTP, Plan investments will be distributed more equitably on the basis of system usage by ethnic/racial groups.

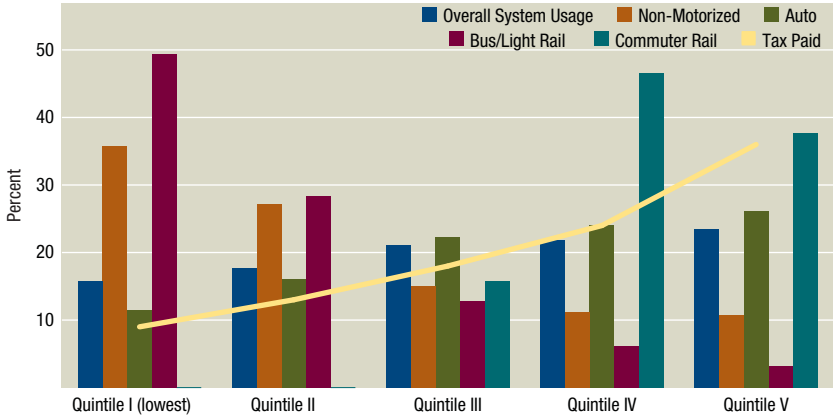
TAXES PAID

Different funding sources (i.e. income taxes, property taxes, sales, fuel, and etc.) can impose disproportionate burdens on lower income and minority groups. Sales and gasoline taxes, which are the primary sources of funding for the region's transportation system, were evaluated for the purposes of this analysis. The amount of taxes paid was analyzed to demonstrate how tax burdens fall on various demographic groups. The 2008 RTP environmental justice analysis examined the burden of taxation.

Results

The 2008 RTP environmental justice analysis performed a comparative analysis of the amount of taxes (sales, gasoline, and income) paid by five income groups. Figure 10: Share of Taxes Paid by Income Category indicates that tax burdens are expected to fall heavily on higher-income groups. The mode of travel most prevalently used by higher income groups (Quintile IV and Quintile V) are commuter rail and the personal automobile, accounting for 60 percent of the taxes paid. The lower income groups (Quintile I and Quintile II), which uses bus and light rail as their primary modes of travel, are anticipated to pay 22 percent of taxes.

FIGURE 10 SHARE OF TAXES PAID BY INCOME CATEGORY*



*The contents in this chart use both work and non-work trips; Rail capacity uses only work trip data

*Share of Tax Paid includes sales and gasoline taxes.

DISTRIBUTION OF TRAVEL TIME SAVINGS

Methodology

Travel time savings was another performance measure SCAG analyzed to determine the share of benefits and burdens. For the 2008 RTP, transportation modeling results were used with data on mode usage by income groups to determine travel time savings. Results were calculated for trips made by automobile (the most common mode of travel) and for trips made by transit.

This analysis involved measuring the average travel time for both work trips and non-work trips. SCAG assessed the distribution of travel time savings that are expected to result from the Plan's implementation. Using the demographics of each TAZ, an estimate for the time savings for each income group was able to be measured. SCAG conducted this analysis for transit (i.e. bus and light rail) and automobile. These travel time savings were reported as a proportion of the total travel time savings for each mode.

Results

FIGURE 11 SHARE OF TRANSIT SYSTEM USAGE, TRANSIT TRAVEL TIME SAVINGS, AND TAXES PAID

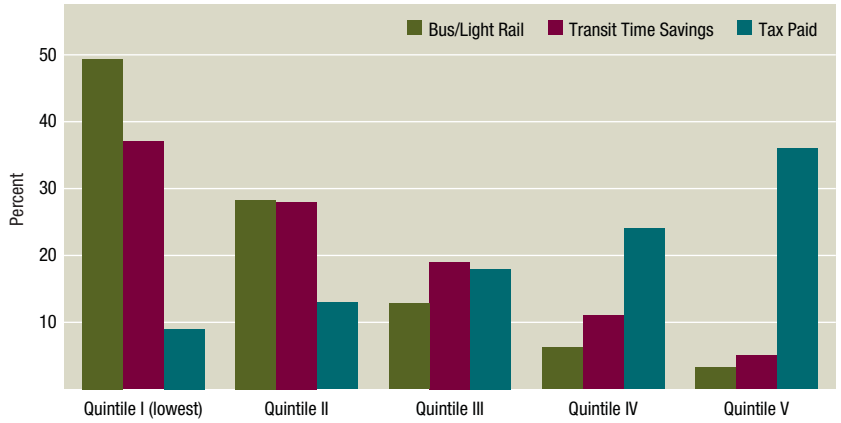
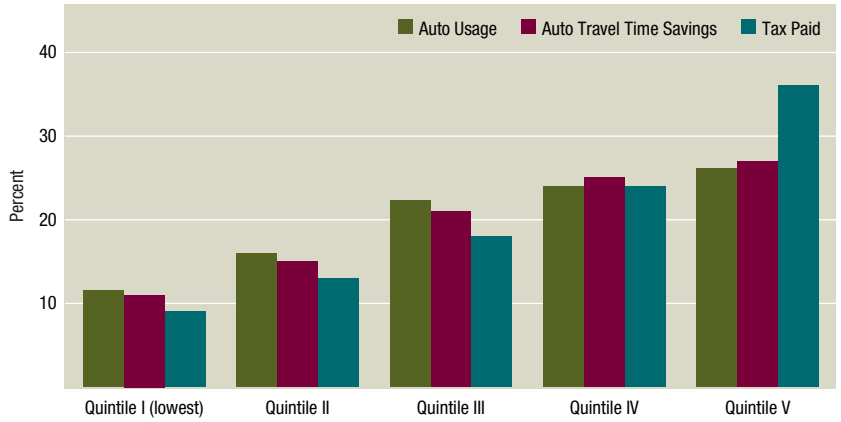


Figure 11: Share of Transit System Usage, Transit Travel Time Savings, and Taxes Paid shows the results for low-cost transit modes, such as local bus and light rail, for the five income groups. Taxes paid by each quintile group, as shown in this analysis, remained consistent with the findings in the 2004 RTP analysis. The 2008 RTP analysis indicates a significant rise in local transit savings for those households in Quintile I. This is a 14 percent increase from results in the 2004 RTP analysis.

According to the 2008 RTP analysis, the two lowest income quintiles will pay just over 20 percent of total taxes collected in the region, but will enjoy 65 percent of the local transit time savings. The two highest income quintiles share of taxes (60 percent) will exceed the benefits they receive in transit time savings (16 percent) and account for only 9 percent of total bus and light rail usage. The findings indicate that transit travel times for lower income groups for both work and non-work trips are expected to decrease due to the number of new bus and rail improvements proposed in the 2008 RTP.

Results were also calculated for trips made by automobile. The underlying assumption for Figure 12: Share of Auto Usage, Auto Travel Time Savings, and Taxes Paid illustrates that the share of benefits is proportionate to the share of taxes paid. Higher income groups are anticipated to have the most benefit in auto travel time savings, but will also incur the highest taxes. It is anticipated that the amount of taxes paid by those in Quintile V (36 percent) will exceed their share of benefits (27 percent). The lowest quintile group will benefit the least, accounting for 12 percent of auto usage and 11 percent of auto travel time savings. This can be attributed to the fact that higher income groups (Quintile IV and V) have higher access to private automobiles and will use this as their primary mode of travel. However, that benefit comes at a steep price, as the highest two income quintiles pay for 60 percent of total taxes. This is consistent with the results in the 2004 RTP.

FIGURE 12 SHARE OF AUTO USAGE, AUTO TRAVEL TIME SAVINGS, AND TAXES PAID



AUTO TRAVEL DISTANCE REDUCTIONS

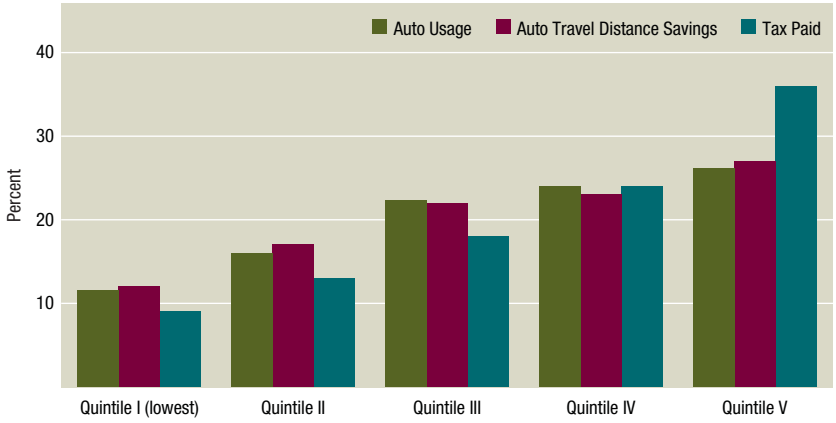
Methodology

Another way of estimating benefits is to calculate savings in terms of person-miles traveled (PMT). These results indicate that the share of auto travel distance savings, like that for auto travel time savings, generally resembles the share of usage and taxes paid. This is another way of estimating the benefits of land-use strategies reflected in the Plan, locating homes nearer to work places and intensifying land-use.

Results

The underlying assumption for Figure 13: Share of Auto Usage, Auto Travel Distance Savings & Taxes Paid is that the share of auto travel distance savings is generally proportionate to the share of taxes paid and transportation system usage between all income groups. The taxes paid by the highest income group (36 percent) are anticipated to exceed their share of benefits (27 percent). The lowest quintile group is expected to have the least amount of benefits, accounting for 12 percent of auto usage and auto travel distance savings. They will also pay the least amount of taxes at 9 percent. Similar to the findings for Auto Travel Time Savings, higher income groups are anticipated to have the most benefits because their primary mode of travel will be the automobile. This is consistent with the results in the 2004 RTP.

FIGURE 13 SHARE OF AUTO USAGE, AUTO TRAVEL DISTANCE SAVINGS & TAXES PAID



ENVIRONMENTAL IMPACTS

Transportation projects can have both a positive or negative impact on the environment. On the one hand, investments can cause travelers to shift to less polluting modes (e.g. bus, train, carpooling, or commuter rail). On the other hand, investments that increase traffic on a particular facility usually degrade air quality in the immediate vicinity of that facility.[25] In order to evaluate the environmental impacts of the 2008 RTP, the environmental justice analysis addressed air pollutant emissions and noise generated from aviation and highway activities.

[25] Caltrans. Desktop Guide: Environmental Justice in Transportation Planning Investments. January 2003.

Minorities and low-income groups may be particularly vulnerable to the effects of air pollution. SCAG's air pollutant emissions analysis was based on emission estimates for pollutants that have localized health effects: carbon monoxide (CO) and particulate matter (PM). Analysis was also conducted for PM exhaust emissions from heavy-duty vehicles: an indicator for diesel toxic air contaminants. The results were computed based on the average emissions at the TAZ level and weighted according to the population of each ethnic or income group in that TAZ. This analysis focuses on air emissions and noise impacts generating from aviation and highways.

Transportation is a major source of noise. Some typical principal noise generators within the SCAG region are associated with airports, freeways, and arterial roadways. Intrusive noise can cause stress and degrade the quality of life for people in affected areas. In extreme cases, intrusive noise can pose a threat to hearing. New transportation facilities or other system changes that increase traffic levels will generally increase noise levels near the facility.[26]

Sound is measured on a non-linear scale in units of decibels. An adjusted scale, using A-weighted decibels [dB (A)], emphasizes those sound frequencies that is audible to humans. On this scale, a 10 dB (A) increase is perceived as a doubling of sound. Sound above 65 dB (A) is considered annoying and sound above 125 dB (A) is painful. Noise generated from the transportation system generally falls above the annoyance level, but below that which is painful.[27]

SCAG's analysis of noise considers two sources: aviation noise (from aircraft at the region's airports) and highway noise. While other transportation modes, such as trains, also create noise, insufficient data was available to analyze these impacts. Because of the differences in the data sources, and varying standards used to regulate the different sources, SCAG's analysis takes a different approach for aviation noise than for highway noise. Given the metrics used for the noise analyses, it is not appropriate to combine the data to estimate aggregate noise impacts of the 2008 RTP.[28]

[26] Ibid.

[27] Ibid.

[28] Ibid.

Results

Air Pollutant Emissions

It is important to note that total emissions of all pollutants in the region will decrease compared to existing conditions with or without the Plan investments, due to the combination of measures being taken to meet air quality standards. Since the 2008 RTP must demonstrate conformity with regional air quality management plans that call for reductions in emissions of air pollutants, the Plan itself will likewise result in reductions of pollutant emissions. This is generally because the Plan investments will alleviate roadway congestion and provide a greater range of transportation alternatives. The following analysis, however, is based on a comparison of Plan to Baseline conditions, rather than a comparison of Plan to current conditions.

Since pollutant concentration levels could not be estimated, the geographic emissions distribution analysis presented here focuses on pollutants that tend to have localized effects which are generally proportionate to emissions – CO and fine particulate matter (PM10). The analysis does not cover pollutants that do not have localized effects proportionate to emissions, but are regionally distributed as a result of chemical interactions, photochemical reactions and meteorology (VOC, NOx, and SOx).

In addition to not being based on concentrations, this methodology assumes that all residents in a given TAZ are equally exposed. Generally both CO and PM10 tend to impact those located closest to the source of emissions. Thus, in a TAZ containing a roadway, those closest to the roadway would experience greater emissions and potential health impacts than those located further away. This difference, as it might exist within TAZs, is not addressed by this analysis - only differences between the aggregate demographic totals of different TAZs are addressed. Notwithstanding these assumptions, the methodology presents a reasonable gross measure of air quality impacts of mobile sources in the region.

FIGURE 14 DECREASE IN AIR POLLUTANT EMISSIONS BY INCOME CATEGORY (PLAN VS. BASELINE, 2035)

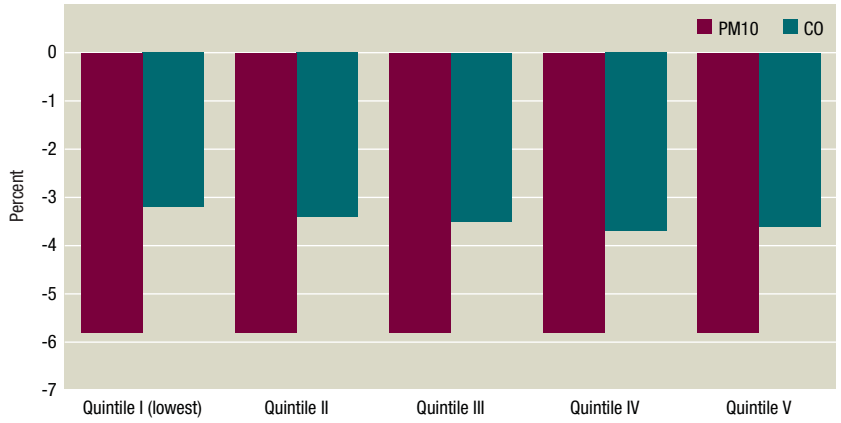
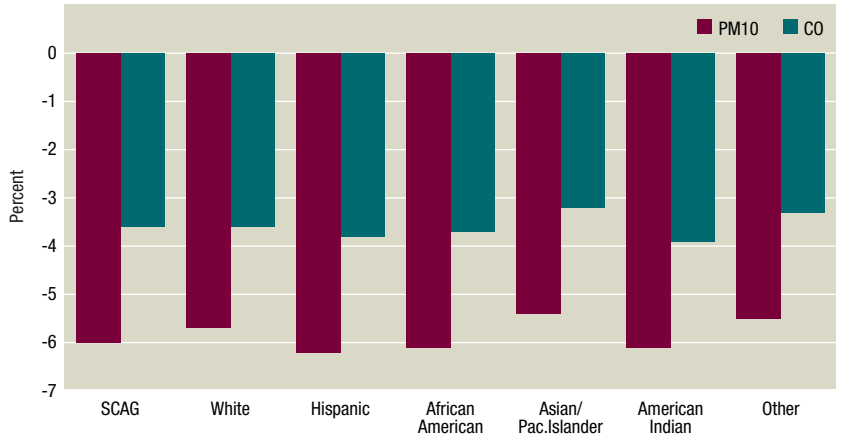


FIGURE 15 DECREASE IN AIR POLLUTANT EMISSIONS BY ETHNIC/RACIAL CATEGORY (PLAN VS. BASELINE, 2035)



Overall, the region as a whole will generally experience an improvement in air quality via reductions in transportation-related emissions. As illustrated by Figure 14: Decrease in Air Pollutant Emissions by Income Category and Figure 15: Decrease in Air Pollutant Emissions by Ethnic/Racial Category, on a regional scale, all income and ethnic groups will experience reductions in PM10 and CO under the Plan.

Aviation Noise Impacts

The SCAG Region supports the nation's largest regional airport system in terms of number of airports and aircraft operations, operating in a very complex airspace environment. The system has six established air carrier airports including Los Angeles International (LAX), Bob Hope (formerly Burbank), John Wayne, Long Beach, Ontario and Palm Springs. There are also four new and emerging air carrier airports in the Inland Empire and North Los Angeles County. These include San Bernardino International Airport (formerly Norton AFB), March Inland Port (joint use with March Air Reserve Base), Southern California Logistics Airport (formerly George AFB) and Palmdale Airport (joint use with Air Force Plant 42). The regional system also includes 45 general aviation airports and two commuter airports, for a total of 57 public use airports. There are significant challenges in meeting the future airport capacity needs of Southern California. One significant challenge is striking a balance between the aviation capacity needs of Southern California with the local quality of life constraints for the affected populations.

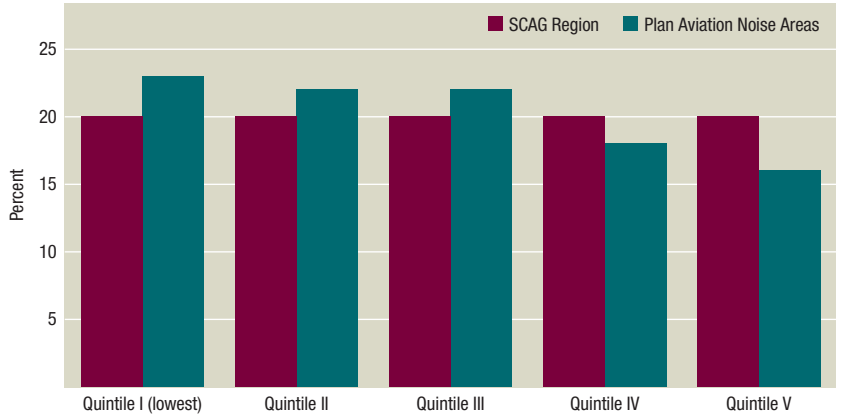
Projected noise impacts from aircraft operations at the region's airports in 2035 were modeled for inclusion in the PEIR for the RTP. For each airport, modeling produced a contour or isoline for the 65 dB Community Noise Equivalent Level (CNEL), a measure of noise that takes into account both the number and the timing of flights, as well as the mix of aircraft types. The Federal Aviation Administration (FAA) considers residences to be an "incompatible land use" with noise at or above 65dB this CNEL level.

To identify potentially impacted populations, the anticipated population within the 65 dB CNEL contour was calculated by the following steps:

1. Calculating the percentage of TAZs that would lie within a 65 dB CNEL contour.
2. Assigning the SCAG projected population to the TAZ.

3. Applying the demographic breakdown of the TAZ as a whole to the population within the 65 dB CNEL contour.

FIGURE 16 DISTRIBUTION OF HOUSEHOLDS IN AVIATION NOISE AREAS BY INCOME CATEGORY (PLAN VS. BASELINE, 2035)



For the purposes of this study, Aviation Noise Areas are defined as areas that are adversely affected by aircraft and airport noise. Figure 16: Distribution of Households in Aviation Noise Areas by Income Category demonstrates that there is a marginal disproportionate impact between each income group in the 2008 RTP, which is similar to the findings in the 2004 RTP. The disparity between the lowest and highest quintile group is approximately 7 percent. Each income quintile (by definition) contains 20 percent of the Region's households in 2035. Under the 2008 RTP, the lowest income group (Quintile 1) will represent 23 percent of the households impacted by noise above the 65 dB CNEL.

FIGURE 17 DISTRIBUTION OF HOUSEHOLDS IN AVIATION NOISE AREAS BY ETHNIC/RACIAL CATEGORY (PLAN VS. BASELINE, 2035)

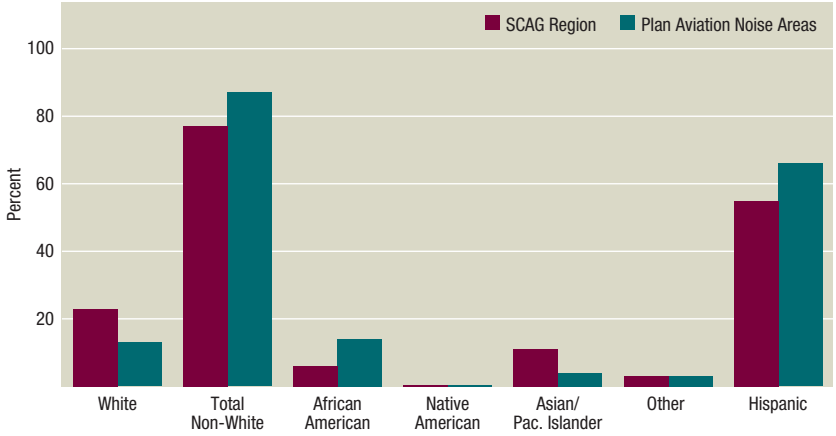


Figure 17: Distribution of Households in Aviation Noise Areas by Ethnic/Racial Category indicates that the 2008 RTP is projected to have a disproportionate aviation noise impact on minority groups. Although non-whites comprise 77 percent of the region's population in 2035, they will make up 87 percent of those affected by the 65 dB CNEL contour. In particular, 66 percent of the impacted population will be Hispanics, which is a 20 percent increase from the 2004 RTP. It is also interesting to note that the number of impacted African-Americans, who represent 6 percent of the region's population, is anticipated to decrease 15 percent from the 2004 RTP.

SCAG's adopted the Aviation Decentralization Strategy, which calls for relieving the pressure on LAX and Ontario as well as relieving surface congestion in the surrounding areas with its proposed ground access strategy, would also address this disproportionate disparity. The Aviation Decentralization Strategy explores available airport capacity in the Inland Empire and North Los Angeles County, particularly Palmdale. With international service established at Palmdale and Ontario airports, the region would have a balanced system of three international airports, similar to the San Francisco Bay Area and New York regions.

This presents a number of advantages for nearby communities. A decentralized airport system will relieve pressure on constrained airports, minimize environmental impacts, such as noise, traffic, and encroachment on adjacent neighborhoods, and reduce stress on the region's surface transportation infrastructure. However, the primary challenge of decentralizing demand to these airports relates to the fact that the core of aviation demand will continue to reside in the urban areas of Los Angeles and Orange counties.

Although the gap between the income groups is projected to be a marginal difference, the environmental justice analysis results demonstrate that lower-income and minority residents still bear a disproportionate burden from aviation noise pollution with the 2008 RTP. As such, it is critical to continue addressing this environmental justice issue.

Highway Noise Impacts

The region has over 20,750 centerline miles and 65,000 lane-miles of roadways, including one of the most extensive High-Occupancy Vehicle (HOV) lane systems in the country. Additionally, the region has a growing network of tolled lanes and High Occupancy Toll (HOT) lanes. Additionally, the region has an enormous number of arterial roadways. Noise from these sources can be a significant environmental concern.

Noise associated with highway traffic depends on a number of factors that include traffic volumes, vehicle speed, vehicle fleet mix (cars, trucks), as well as the location of the highway with respect to sensitive receptors. According to Federal Highway Administration (FHWA) guidance, noise impacts occur when noise levels increase substantially when compared to existing noise levels. For the purposes of this analysis (consistent with FHWA guidance), noise increases of 3 dB along highways where noise levels are currently, or would be in the future, above 66 dB are considered to be significant, regardless of adjacent land use.

Highways that would be expected to have an increase of 3 dB or more include those where any of the following would occur: (1) the total traffic volumes increase by 100 percent compared to existing conditions; (2) the medium/heavy truck traffic volumes increase by 130 percent compared to existing conditions; or (3) the medium/heavy truck traffic volumes increase by 100 percent and there is an increase in other traffic volumes by 50 percent. These highway segments were identified using the results of SCAG's regional transportation model.

On some highways, there is no potential for noise levels to reach 66 dB. To eliminate these from the analysis, the following criteria were applied: (1) arterials where the FHWA's Traffic Noise Model (TNM) indicated that the motor vehicle volume (and the percentage of medium/heavy trucks) would result in traffic noise levels less than 66 dB; (2) arterials where the calculated motor vehicle speed was less than 17 mph; or (3) freeways where the average volume-to-capacity ratio was equal to or greater than 1.0, which would result in vehicle speeds of less than 30 mph. If a highway met any one of these criteria, it was eliminated from further consideration.

For each highway segment where a significant increase in noise would occur, a 150-foot impact zone was determined to either side. Using GIS, the percentage of each affected TAZs land area that fell within this zone was identified, and this percentage was applied to the demographic data forecast for this TAZ. This methodology was utilized in the 2004 RTP as well. However, this contrasts with the 2001 RTP analysis, where no impact zone was identified and the entire affected TAZ was included, even though noise impacts occur adjacent to the freeway. This change in methodology made the analysis more precise. Also, in contrast to the aviation impact analysis, no percentage was applied for residential zoning. The highway noise analysis identified an impact even when a land use not sensitive to noise (for example, industrial) was located adjacent to a highway. The demographic characteristics of each impacted TAZ portion were aggregated and compared with the regional demographics to determine if there would be any disproportionate impacts to any of the demographic groups identified in Section I of this Appendix.

FIGURE 18 DISTRIBUTION OF HOUSEHOLDS IN HIGHWAY NOISE AREAS BY INCOME CATEGORY (PLAN VS. BASELINE, 2035)

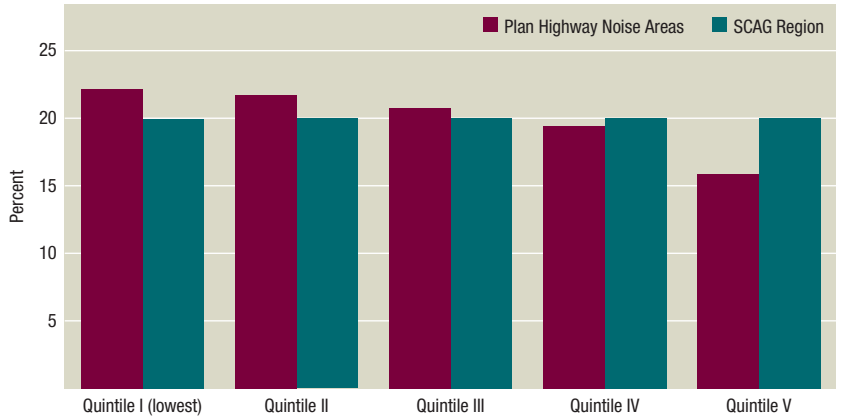
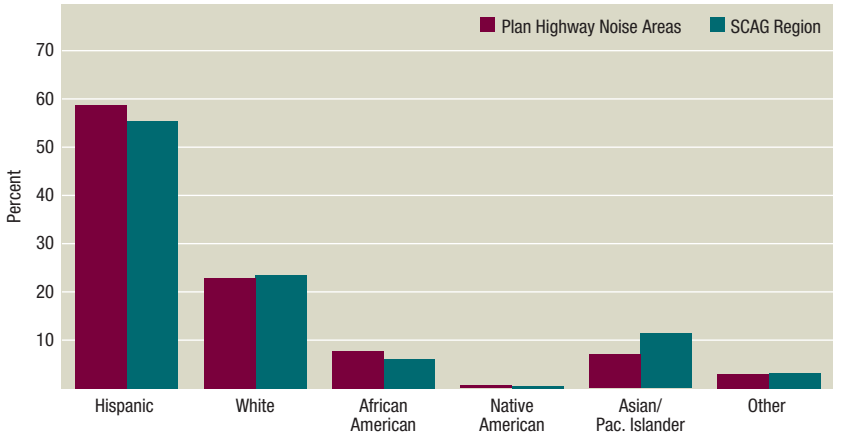


Figure 18: Distribution of Households in Highway Noise Areas by Income Category, identified a marginal disproportionate impact between each income group The lowest income group (Quintile 1) will account for 22 percent of the affected population in 2035. There is a 6 percent difference between the lowest and the highest income quintiles.

FIGURE 19 DISTRIBUTION OF HOUSEHOLDS IN HIGHWAY NOISE AREAS BY ETHNIC/RACIAL CATEGORY (PLAN VS. BASELINE, 2035)



The 2008 RTP also found that minority populations were primarily affected by highway noise impacts. Figure 19: Distribution of Households in Highway Noise Areas by Ethnic/Racial Category indicates that minority populations, specifically Hispanics, would be disproportionately impacted by highway noise. Approximately, 59 percent of Hispanics would be residing in highway noise areas by 2035. This is a 12 percent increase from the results of the 2004 RTP analysis.

The identification of these disparate highway noise impacts at the regional level can be attributed to a the issue of incompatible land use, where high-polluting transportation projects, such as freeway construction, airport expansions, or rail extension projects, are located in minority populated neighborhoods. Corridor-level analysis should be conducted for proposed projects in areas where burdens are concentrated. In addition, the 2008 RTP proposes mitigating these impacts to the extent possible, for example, by requiring new soundwalls where freeway expansions are proposed. Furthermore, the RTP also proposes grade crossings, new technologies, and other clean technologies for goods movement corridors.

New Social Equity Elements

In addition to the performance measures analyzed above, the 2008 RTP environmental justice analysis has undertaken new components. Summarized below are the new initiatives that have either directly or indirectly resulted from previous environmental justice discussions and comments received.

- Accessibility: In the 2004 RTP environmental justice analysis, SCAG analyzed the percentage of jobs accessible within 45 minutes. The 2008 RTP analysis instead used 30 minutes to calculate accessibility. SCAG determined that the 30 minute travel-time criterion was more indicative of accessibility to the locations of employment services.
- Trips: In the 2008 RTP, both work and non-work trips were analyzed. Previous RTP environmental justice analysis only included work trips. In this analysis, both work and non-work trips were calculated for each TAZ. Incorporating non-work trips into the analysis provides a more accurate determination of allocation of benefits and burdens for each of the performance measures.
- Access to Parks: In response to the comments on the draft 2008 RTP Environment Justice analysis, SCAG conducted additional and new analysis on accessibility to parks from the perspective of the long range regional transportation plan.
- County Data: In response to the comments received on the draft 2008 RTP Environment Justice analysis, SCAG prepared additional and new analysis on a county-wide level. This information is included as supplementary information. (See pages 26 through 28)

Conclusions

SCAG's performance indicators reflect a broad set of goals and objectives put forward for the region and its transportation system. The intention of the environmental justice analysis is to demonstrate that SCAG's planning processes and methods are responsive to imbalances caused by the development of the plans, programs, and policies in the 2008 RTP. An overview of the findings is listed below:

- Accessibility to Employment: The results indicate that low-income and minority communities in the region will have higher levels of access to employment via local bus and rail with the 2008 RTP. The results indicate that on a regional scale, no disproportionate impacts are anticipated between income groups as a result of the Plan.
- Accessibility to Parks: All income groups for the whole region will have greater park accessibility due to the infrastructure investments proposed in the 2008 RTP. However, a multi-agency effort must be undertaken in order to further address and remedy the issue of inequity of park access.
- Distribution of Plan Expenditures (Investments): SCAG analyzed the distribution of Plan expenditures based on mode usage information by income quintile. Under the Plan, approximately 28 percent of investments will go to modes predominantly used by lowest quintile group, while 16 percent will be invested for modes likeliest to be used by the highest income category (Quintile V). The current analysis also reveals that under the 2008 RTP, Plan investments will be distributed more equitably on the basis of system usage by ethnic/racial groups. In other words, transportation investments would go to modes likeliest to be used by low income and minority households.
- Taxes Paid: Overall, tax burdens are anticipated to fall heavily on higher-income groups. The lower income groups (Quintile I and Quintile II), which uses bus and light rail as their primary modes of travel, are anticipated to pay 22 percent of taxes.
- Distribution of Transit Travel Time Savings: The results in the 2008 analysis also reveal that the two lowest income quintiles will pay just over 20 percent of total taxes collected in the region, but will enjoy 65 percent of the local transit time savings. The two highest income quintiles share of taxes (60 percent) will exceed the benefits they receive in local transit time savings (16 percent), accounting for only 9 percent of total bus and light rail usage. The findings indicate that transit travel times for

lower income groups for both work and non-work trips are expected to decrease due to the number of new bus and rail improvements proposed in the 2008 RTP.

- Distribution of Auto Travel Time Savings: The amount of taxes paid by those in Quintile V (36 percent) will exceed their share of benefits (27 percent). The lowest quintile group will benefit the least, accounting for 12 percent of auto usage and 11 percent of auto travel time savings. Higher income groups are anticipated to have the most benefit in auto travel time savings, but will also incur the highest taxes.
- Auto Travel Distance Reductions: The lowest quintile group is expected to have the least amount of benefits, accounting for 12 percent of auto usage and travel distance savings. They will also pay the least amount of taxes at 9 percent. The taxes paid by the highest income group (35 percent) are anticipated to exceed their share of benefits (27 percent). Similar to the findings for Auto Travel Time Savings, higher income groups are anticipated to have the most benefits because their primary mode of travel will be the automobile.
- Air Pollutant Emissions: Overall, the region as a whole will generally experience an improvement in air quality via reductions in transportation-related emissions due to ongoing mobile source emission controls and investments in the Plan. On a regional scale, the analysis did not reveal any disproportionate impact between ethnic/racial categories.
- Noise: The results in the 2008 RTP analysis indicate that low-income and minority groups will be disproportionately impacted by aviation and highway noise.

The 2008 RTP environmental justice analysis sought to answer two core questions:

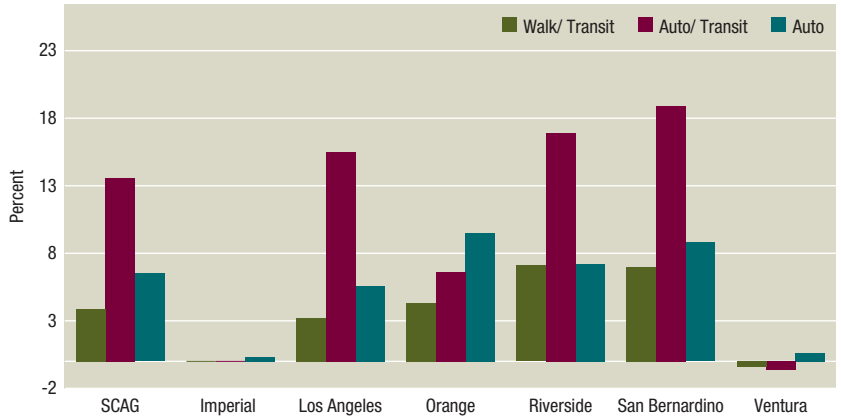
- Are people worse or better off with or without the Plan?
- Is there a disproportionate negative impact of the Plan on any demographic group?

Although these questions cannot fully be answered, the 2008 RTP seeks to identify and address Title VI of the Civil Rights Act and any environmental justice implications of the planning processes and investment decisions. It is critical for SCAG and policy-makers alike to ensure that their transportation programs, policies, and activities serve all segments of the region without generating disproportionately high and adverse effects.

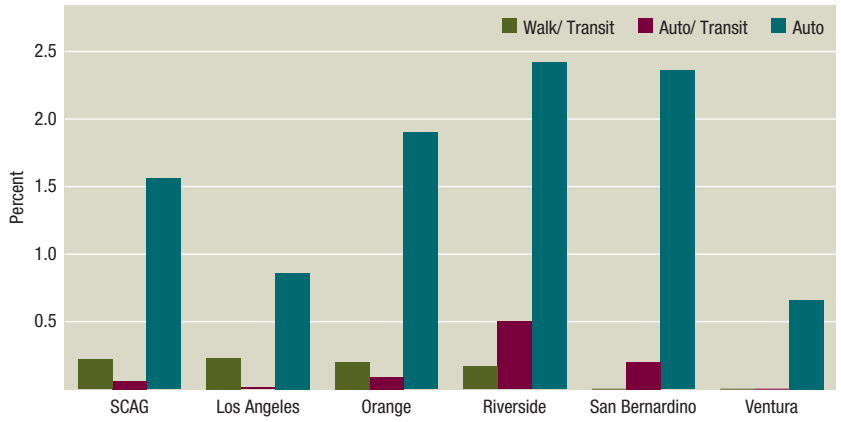
In the face of continued population growth, sprawling urbanization, increasing annual vehicle miles traveled, and an expanding economy, policy-makers must make decisions that will have significant implications for the region's land use patterns, densities, nodes for growth and development, environmental health, livability, accessibility and equity. Accommodating the anticipated growth in the SCAG region in a sustainable way—by taking into account ecological, economic and social justice factors, while enhancing quality-of-life for present and future generations—represents the central challenge facing regional transportation planning in Southern California.

County Data

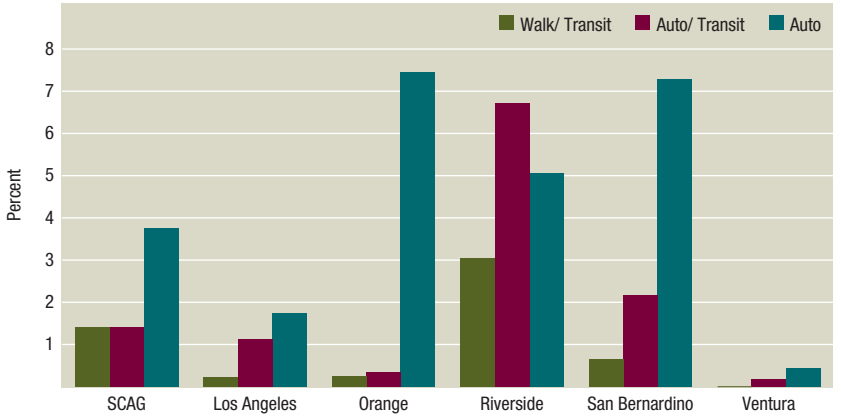
COUNTY 1 ACCESSIBILITY TO EMPLOYMENT BY HOUSEHOLDS (PLAN VS. BASELINE, 2035)



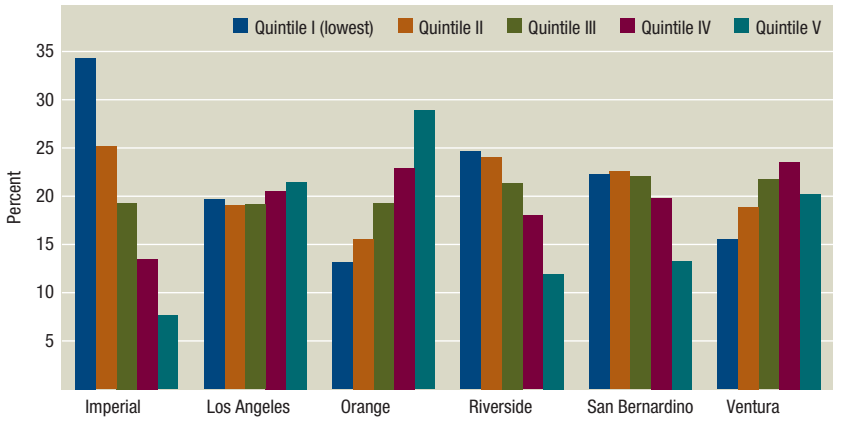
COUNTY 2 COMPARISON OF STATE PARK ACCESSIBILITY IMPROVEMENTS BY TRAVEL MODE AND INCOME QUINTILE (PLAN VS. BASELINE, 2035)



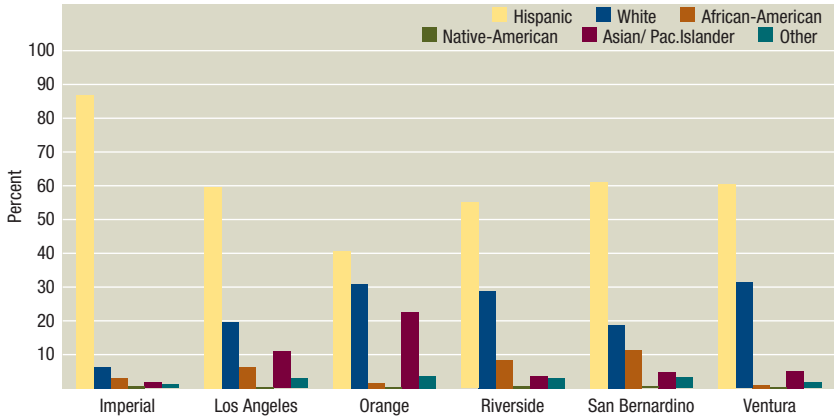
COUNTY 3 COMPARISON OF LOCAL PARK ACCESSIBILITY IMPROVEMENTS BY TRAVEL MODE AND INCOME QUINTILE (PLAN VS. BASELINE, 2035)



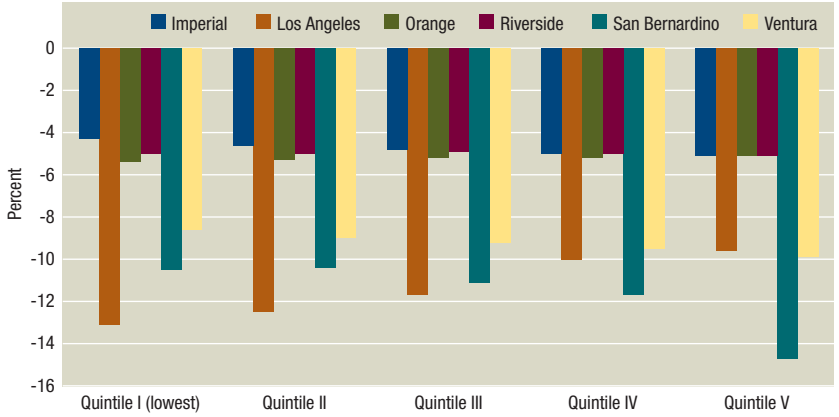
COUNTY 4 DISTRIBUTION OF HOUSEHOLDS IN HIGHWAY NOISE AREAS BY INCOME QUINTILE (PLAN VS. BASELINE, 2035)



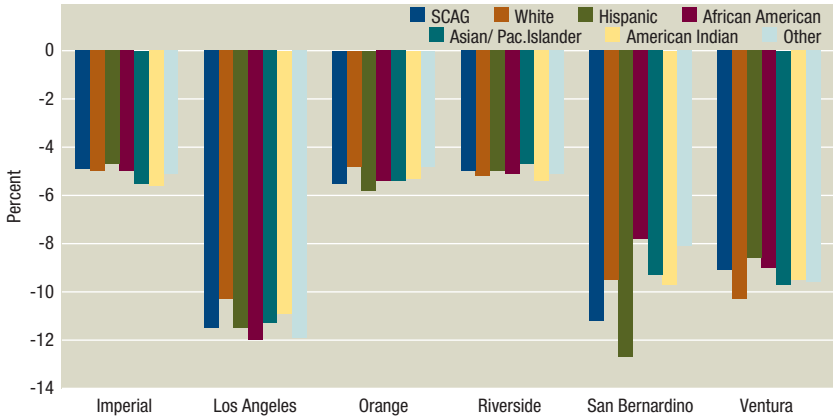
COUNTY 5 DISTRIBUTION OF HOUSEHOLDS IN HIGHWAY NOISE AREAS BY ETHNIC/RACIAL CATEGORY (PLAN VS. BASELINE, 2035)



COUNTY 6 DECREASE IN PM10 POLLUTANT EMISSIONS BY INCOME CATEGORY & COUNTY (PLAN VS. BASELINE, 2035)



COUNTY 7 DECREASE IN PM10 POLLUTANT EMISSIONS BY ETHNIC/ RACIAL CATEGORY & COUNTY (PLAN VS BASELINE)



CO	SYS*	LEAD AGENCY	RTP ID	RTIP ID	RTE	BEG PM	END PM	STREET	FROM	TO	DESCRIPTION	ADDITIONAL DETAILS, IF AVAILABLE	2008 RTIP	NO BUILD	NETWORK YR (PROJECT COMPLETION BY)**							
															2008	2009	2010	2012	2014	2020	2030	2035
IM	S	CALTRANS	IMP0051G	IMP0051G	7	1.2	6.7	SR-7	SR-98	I-8	NEAR CALEXICO FROM ROUTE 98 TO ROUTE 8 - 4 LANE EXPRESSWAY (FROM IMP-6800)		√	√	√							
IM	S	CALTRANS	0515	0515	8	36.5	37.4	I-8	IMPERIAL AVE	Widen overcrossing to 4 lanes	IN EL CENTRO FROM 0.8 KM WEST TO 0.6 KM EAST OF IMPERIAL AVE, RECONSTRUCT INTERCHANGE AT I-8 AND IMPERIAL AVE. WIDEN IMPERIAL OVERCROSSING TO 4 LANES. RECONSTRUCT IC TO TRADITIONAL DIAMOND TYPE L-2 W/LOOP IN SW QUADRANT FOR SB IMPERIAL TO EB I-8. RAMPS ARE ALL 1 LANE; EB OFF-RAMP AND DIAMOND LEG OF WB ON RAMP WIDENS TO 2 LANES AT IMPERIAL AND WB OFF-RAMP WIDENS TO 3 LANES AT IMPERIAL.		√	√						√		
IM	S	CALTRANS	6M04018	IMP0523a	8	38.964	38.964	I-8	DOGWOOD RD		ON I-8 AT DOGWOOD RD, CONSTRUCT FULL INTERCHANGE - WIDEN DOGWOOD FROM 2 TO 4 LANES (2 EACH DIR) OVER I-8									√		
IM	S	CALTRANS	IMP0021	IMP0021	78	7.2	15.7	SR-78	0.5 Miles south of Baughman Road	Mead Road	BRAWLEY BYPASS CORRIDOR -- IN AND NEAR BRAWLEY FROM 0.5 MILES SOUTH OF BAUGHMAN ROAD TO MEAD RD - 4 LANE EXPRESSWAY ON SR 86 TO 0.3 MILE NORTH OF MEAD RD. ON SR 111		√	√				√				
IM	S	CALTRANS	8020	8020	98	30.0	32.6	SR-98	0.5 KM west of Dogwood Rd	0.3 KM east of Rockwood Ave	IN CALEXICO FROM 0.5 KM WEST OF DOGWOOD RD. TO 0.3 KM EAST OF ROCKWOOD AVE., WIDEN HWY FROM 1 TO 2 LANES IN EACH DIRECTION WITH TURN POCKETS AT MAJOR INTERSECTIONS	Project will be constructed in 2 stages	√				√					
IM	S	CALTRANS	IMP0042A	IMP0042A	98	31.9	39.7	SR-98	0.6 KM west of SR-111	Alamo River Bridge	IN AND NEAR CALEXICO FROM 0.6 KM WEST OF SR 111 EASTERLY TO ALAMO RIVER BRIDGE WIDEN TO 4 LANE HWY		√	√				√				
IM	S	CALTRANS	6M01003		111	1.2	7.7	SR-111	SR-98	I-8	ON SR-111 FROM SR-98 TO I-8, UPGRADE TO FREEWAY (3 LANES EACH DIR) INCL. INTERCHANGES AT MCCABE, JASPER, HEBER, AND OVERCROSSING AT CHICK RD										√	
IM	S	CALTRANS	1993U	1993U	111	8.0	12.9	SR-111	ROSS RD	WORTHINGTON RD	NEAR EL CENTRO FROM ROSS ROAD TO WORTHINGTON ROAD 4 LANE EXPRESSWAY COMBINES PROJECTS 19931 AND 19932		√	√	√							
IM	S	CALTRANS	19934	19934	111	12.9	17.8	SR-111	WORTHINGTON RD	KEYSTONE RD	NEAR EL CENTRO FORM WORTHINGTON ROAD TO KEYSTONE ROAD - 2 LANE HIGHWAY TO 4 LANE		√	√	√							
IM	S	CALTRANS	19936	19936	111	17.7	22.1	SR-111	KEYSTONE RD	SR-78	NEAR EL CENTRO FROM KEYSTONE ROAD TO ROUTE 78 - 2 LANE HIGHWAY TO 4 LANE EXPRESSWAY		√	√	√							
IM	S	CALTRANS	6M0400E		115	0.0	0.0	SR-115	I-8 / SR-7 INTERCHANGE	EVAN HEWES HWY / SR-115 JUNCTION	ON SR-115 FROM I-8/SR-7 INTERCHANGE TO THE JUNCTION OF EVAN HEWES HWY & SR-115, CONSTRUCT 4-LANE LIMITED ACCESS EXPRESSWAY (2.6 MILES)	CURRENTLY COUNTY HWY S32 IS A 2-LANE ROAD (1 EACH DIR)								√		
IM	L	CALEXICO	IMP050509	IMP050509	0	0.0	0.0	COLE RD	Bowker Road East	State Route 98	COLE RD CORRIDOR IMPROVEMENTS; EXPANSION OF 2 LANE RD INTO 4 LANE PRINCIPAL ARTERIAL (0.5 MILES) FROM BOWKER RD EAST TO SR-98		√				√					
IM	L	IMPERIAL COUNTY	IMP991102	IMP991102	0	0.0	0.0	COLE RD	Railroad Tracks	Kloke Road (0.33 miles east of starting point)	RECONSTRUCTION AND WIDENING OF COLE ROAD FROM 2 LANES TO 4 LANES; FROM RAILROAD TRACKS EAST TO KLOKE ROAD (.33) MILES		√	√	√							
IM	L	IMPERIAL COUNTY	IMP051201	IMP051201	0	0.0	0.0	DOGWOOD RD	Correll North	2600' north of McCAbe	NEAR EL CENTRO; DOGWOOD CORRIDOR - WIDEN & IMPROVE DOGWOOD RD (2 TO 4 LANES) FROM CORRELL NORTH TO 2600' N/O MCCABE & INSTALL 2 SIGNALS (AB 3090 REIMBURSMENT FOR 11-IMP0520. THIS IS PART OF IMP 051201 BUT WILL CHANGE TO PROJECT ID 0520B.)		√	√		√						
IM	L	TBD	6A07008		0	0.0	0.0	JASPER RD	SR-111	SR-7	JASPER RD FROM SR-111 TO SR-7, WIDEN FROM 2 TO 6 LANES (3 EACH DIR) LIMITED ACCESS EXPRESSWAY										√	
LA	S	CALTRANS	LA0C8080	LA0C8080	1	23.6	23.9	SR-1	33RD STREET	ROSECRANS AVENUE	IN MANHATTAN BEACH: ON ROUTE 1 BETWEEN 33RD STREET & ROSECRANS AV; ADD ONE THROUGH LN TO NORTH BOUND SEPULVEDA BLVD. TO WIDEN EXISTING STRUCTURE FROM 6 TO 7 THROUGH LANES PPNO 2947; Received $6,813,325 RSTP$ from MTA 2009 CFP (Proj Num F3139).	WIDEN FROM 6 TO 7 LANES - TO NORTHBOUND SEPULVEDA	√	√					√			
LA	S	CALTRANS	16602	16602	1	28.7	29.6	SR-1	HUGHES TERRACE	LA TIJERA BLVD.	NEAR MARINA DEL REY FROM HUGHES TERRACE TO LA TIJERA BLVD: WIDEN FROM 7 TO 8 LANES, ADD LEFT TURN LANE, MODIFY SIGNALS. (EA# 1661A, PPNO 0027K0, 3542).	WIDEN FROM 7 TO 8 LANES	√	√		√						

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LA	S	CALTRANS	16601	16601	1	29.8	30.8	SR-1	HUGHES TERRACE	FIJI WAY	NEAR MARINA DEL REY FROM HUGHES TERRACE TO FIJI WAY - VIROUS WIDEN UP TO 4-LANE IN EACH DIRECTN VARIOUS INTERSECTN IMPRVMNTS -- WIDNG FRM 6 TO 8 LNES. EA # 1660U1. PPNO 0027J.	WIDEN TO 4 LANES IN EACH DIRECTION.	√	√		√						
LA	S	CALTRANS	16606	16606	1	30.4	0.0	LINCOLN BL	JEFFERSON BLVD	FIJI WAY	NEAR MARINA REY ON LINCOLN BL FRM JEFFERSON BL TO FIJI WAY - WIDEN FROM 3 TO 4 THRU LNES IN EA. DIR. & RPLCE CULVER BL OC &CNSTRCT NEW BRDG OVR BALLONA CREK (EA 1661C, PPNO 0027P).	WIDEN FROM 3 TO 4 LANES IN EA.. DIRECTION: NOTE PROJECT 16607 COMBINED WITH THIS PROJECT.	√	√					√			
LA	S	LOS ANGELES COUNTY MTA	LA000274	LA000274	2	3.6	5.9	SR-2	SEPULVEDA	MORENO	FROM SEPULVEDA TO MORENO CONSTRUCT DIVIDED PKWY WITH TRANSIT PKWAY IMPROVEMENTS, BIKE LANES & RT. 2/405 INTERCHANGE (94CFP; CAT. 2, 210, 98STIP00027) TEA21-#1531	CONSTRUCT DIVIDED PARKWAY WITH TRANSIT PARKWAY IMPROVEMENTS; AND ROUTE 2/405 INTERCHANGE	√	√	√							
LA	S	CALTRANS	LA0D73	LA0D73	5	0.1	6.8	I-5	ORANGE COUNTY LINE	ROUTE 605	LA MIRADA, NORWALK & SANTA FE SPRINGS-ORANGE CO LINE TO RTE 605 JUNCTION. WIDEN FOR HOV & MIXED FLOW LNS, RECONSTRUCT VALLEY VIEW (EA 2159A, =EA 21591, 21592, 21593, 21594, 21595; PPNO 4153, 2808, 4154, 4155, 4156).	WIDEN FOR HOV & MIXED FLOW LANES - 1 LANE IN EACH DIRECTION	√	√					√			
LA	S	CALTRANS	LA0D73B	LA0D73B	5	1.8	3.0	I-5	AT CARMENITA IC		IN NORWALK: FROM ORANGE COUNTY LINE TO ROUTE 605: CARMENITA INTERCHANGE IMPROVEMENT (EA 2159C0, PPNO 2808A) REMOVAL OF EXISTING 2 LNS STEEL STRUCTURE AND CONSTRUCT NEW 8 LNS CONCRETE STRUCTURE, W/TIGHT DIAMOND RAMPS AND IMPROVE EXISTING FRONTAGE ROADS.	REMOVAL OF THE EXISTING TWO LANES STEEL STRUCTURE AND CONSTRUCTING A NEW EIGHT LANES CONCRETE STRUCTURE, WITH TIGHT DIAMOND RAMPS AND IMPROVE EXISTING FRONTAGE ROADS.	√	√					√			
LA	S	CALTRANS	LA996138	LA996138	5	6.5	8.3	I-5	FLORENCE	ROUTE 19	RTE 5 HOV LNS FROM FLORENCE AVE TO RTE 19 - ADD ONE LANE IN EACH DIRECTION	ADD 1 HOV LANE IN EACH DIRECTION	√								√	
LA	S	CALTRANS	1H0707		5	8.3	13.8	I-5	Route 19	Route 710	RTE 5 HOV LNS FROM RTE 19 TO RTE 710 - ADD ONE LANE IN EACH DIRECTION										√	
LA	S	CALTRANS	LA000358	LA000358	5	26.7	36.4	I-5	ROUTE 134	ROUTE 170	RTE 5 FROM ROUTE 134 TO ROUTE 170 HOV LANES (8 TO 10 LANES) (CFP 346)(2001 CFP 8355). (EA# 12180, 12181,12182,12183,12184, 13350 PPNO 0142F,151E,3985,3986,3987) SAFETEA LU # 570. CONSTRUCT MODIFIED IC @ I-5 EMPIRE AVE, AUX LNS NB & SB BETWEEN BURBANK BLVD & EMPIRE AVE; AND MODIFY EXISTING STRUCTURES. ADD AUXILIARY LANE BETWEEN ALAMEDA AND OLIVE FROM PM 28.43 to PM 29.78	ADD 1 HOV IN EACH DIRECTION; AUX LANES AND MODIFIED IC	√	√				√				
LA	S	GLENDALE	17860	17860	5	27.4	28.1	I-5	SONORA AVE	ALLEN ST	ON RTE 5 BETWEEN SONORA AVE AND ALLEN ST - MODIFY RTE 5/WESTERN AVE INTERCHANGE (REALIGNING THE 8 EXISTING ON & OFF RAMPS).RTE.5/WESTERN AVE ACCESS PROGRAM GLENDALE. PPNO 2120A. REALIGN/MODIFY NB I-5 ON/OFF RAMPS AT WESTERN: REMOVE EXISTING 1 LN EXIT THAT SPLITS TO EB/WB WESTERN; REPLACE WITH NEW 2-LN HOOK OFF-RAMP THAT WIDENS TO 4 LNS AT FOWER ST	REALIGN AND MODIFY THE NB I-5 ON-AND OFF-RAMPS AT WESTERN AVE. THE EXISTING 1-LANE, LOOP OFF-RAMP TO EB WESTERN AVE. AND 1-LANE, LOOP OFF-RAMP TO WB WESTERN AVE. WILL BE REALIGNED TO A 2-LANE HOOK OFF-RAMP -- WHICH WILL WIDEN TO 4 LANES AT THE END OF THE RAMP AND TERMINATE AT FLOWER STREET. NO ADDITIONAL THROUGH LANES WILL BE CONSTRUCTED. THE CURRENT 1 LANE EXIT TO OFF-RAMP THAT SPLITS TO BOTH WB AND EB WESTERN AVE.-WILL BE REMOVED; NEW TWO LANE OFF-RAMP EXIT WILL BE CONSTRUCTED AND WIDEN TO FOUR LANES AT FLOWER STREET	√	√				√				
LA	S	CALTRANS	LA0C8012	LA0C8012	5	27.4	28.1	I-5	AT WESTERN AVENUE INTERCHANGE		I-5 WESTERN AVENUE I/C PHASE I -REALIGNMENT OF I-5 NB OFF & ON RAMPS @ WESTERN. NB EXIT RAMP BEGINS AS 2 AND WIDENS TO 4 LANES AT FLOWER ST. (EA# 1786A, PPNO 2120)	REALIGNMENT OF I-5 NB OFF & ON RAMPS @ WESTERN. NB EXIT RAMP BEGINS AS 2 AND WIDENS TO 4 LANES AT FLOWER ST	√	√					√			
LA	S	CALTRANS	LA000357	LA000357	5	36.4	39.4	I-5	ROUTE 170	ROUTE 118	Route 5: --- FROM ROUTE 170 TO ROUTE 118 ONE HOV LANE IN EACH DIRECTION (10 TO 12 LANES) INCLUDING THE RECONSTRUCTION OF THE I-5/SR-170 MIXED FLOW CONNECTOR AND THE CONSTRUCTION OF THE I-5/SR-170 HOV TO HOV CONNECTOR (CFP 345) (2001 CFP 8339; CFP2197).	ADD 1 HOV IN EACH DIRECTION AND THE CONSTRUCTION OF THE I-5/SR-170 HOV TO HOV CONNECTOR	√	√				√				
LA	S	CALTRANS	LA01344	LA01344	5	39.4	45.6	I-5	ROUTE 118	ROUTE 14	RT 5 FROM RT 118 TO RT 14 FROM 10 TO 12 LANES HOV LANES. EA# 122001, PPNO 0162P. GARVEE PROJECT.	ADD 1 HOV IN EACH DIRECTION	√	√		√						
LA	S	LOS ANGELES COUNTY MTA	1H0103		5	41.6	0.0	I-5 / I-405	South	North	I-5/I-405 CARPOOL LANE PARTIAL CONNECTOR (SOUTH TO NORTH)										√	
LA	S	CALTRANS	LA996134	LA996134	5	43.5	47.0	I-5	AT ROUTE 14 INTERCHANGE		RTE. 5/14 INTERCHANGE & HOV LNS ON RTE 14 - CONSTRUCT 2 ELEVATED LANES - HOV CONNECTOR (DIRECT CONNECTORS) (EA# 16800)(2001 CFP 8343) (PPNO 0168M)	CONSTRUCT AN ELEVATED TWO LANE HOV CONNECTOR	√	√				√				

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LA	S	CALTRANS	LAE0465	LAE0465	5			I-5	SR-14	PICO CANYON	I-5 IN SANTA CLARITA ADD: 1 NB AND 1 SB HOV LANE FROM I-5 / SR-14 INTERCHANGE TO PICO CANYON; 2 SB TRUCK LANES FROM I-5/SR-14 TO CALGROVE, 1 SB TRUCK LANE FROM CALGROVE BLVD TO PICO CYN RD/LYONS AVE; 1 NB TRUCK LANE FROM I-5 / SR-14 INTERCHANGE TO CALGROVE BLVD. (2.5 MI.); ADD AND/OR EXTEND AUX LANES (SEE DETAILS TO RIGHT)	CONSTRUCT AND/OR EXTEND AUX LANES BETWEEN INTERCHANGES: 2 NORTHBOUND LOCATIONS-- FROM SB SR-14/NB I-5 CONNECTOR TO THE NB TRUCK LANES MERGE; FROM CALGROVE TO PICO CYN/LYONS	√						√			
LA	S	CALTRANS	1TL1001		5			I-5	PICO CANYON	PARKER RD	I-5 IN SANTA CLARITA ADD: 1 NB AND 1 SB HOV LANE FROM PICO CANYON TO PARKER RD.	CONSTRUCT AND/OR EXTEND AUX LANES BETWEEN INTERCHANGES: 1 NORTHBOUND LOCATION-- FROM VALENCIA BLVD TO MAGIC MTN PKWY. 3 SOUTHBOUND LOCATIONS-- FROM MCBEAN PKWY TO VALENCIA BLVD; FROM MAGIC MOUNTAIN PKWY TO RYE CYN RD; AND FROM RYE CYN RD TO SR-126	√							√		
LA	S	CALTRANS	LA990366	LA990366	5	54.7	56.2	I-5	AT ROUTE 126		I-5/ROUTE 126 IC WIDEN/IMPROVE. CONSTRUCT DIRECTIONAL 1-LN RAMP FROM WB SR-126 TO NB I-5, WIDEN NB I-5 OFF-RAMP FROM 2 TO 3 LNS, REALIGN 2-LN EB SR-126 TO NB I-5 LOOP ON-RAMP, CONSTRUCT 1 LN LOOP ON-RAMP FROM WB SR-126 TO SB I-5, REALIGN 3-LANE SB I-5 OFF RAMP @ WIDEN IT AT SR-126, CONSTRUCT EB SR-126 TO SB I-5 ON-RAMP AS 2-LN BRANCH CONNECTOR, REMOVE EXISTING HOOK RAMPS FROM SR-126 THAT ACCESS HENRY MAYO DR IN EB DIR AND THE OLD RD IN WB DIR, WIDEN SR-126 FROM 4 TO 6 LNS FROM 680 MTRS W/O I-5/SR-126 IC EAST TO NEWHALL RANCH RD, WIDEN LN WIDTH NEWHALL RANCH ROAD TO EXISTING ROW LIMIT, WIDEN I-5/SR-126 SEPARATION AND FRONTAGE RD UNDERCROSSING AT SR-126/THE OLD ROAD TO ACCOMODATE SR-126 WIDENING. (TEA-21, H.P. 173) (EA# 187200)(EA# 187200, PPNO 2209).	CONSTRUCT A DIRECTIONAL 1-lane RAMP FROM WB SR-126 TO NB I-5, WIDEN THE NB I-5 OFF-RAMP TO SR-126 fr 2 to 3 LANES, REALIGN 2-LANE EB SR-126 TO NB I-5 LOOP ON-RAMP, CONSTRUCT A 1-LANE LOOP ON-RAMP FROM WB SR-126 TO SB I-5, REALIGN 3-LANE SB I-5 OFF RAMP AND WIDEN IT AT THE SR-126 INTERSECTION, CONSTRUCT EB SR-126 TO SB I-5 ON-RAMP AS A TWO-LANE BRANCH CONNECTOR, REMOVE THE EXISTING HOOK RAMPS FROM SR-126 THAT ACCESS HENRY MAYO DRIVE IN THE EB DIRECTION AND THE OLD ROAD IN THE WB DIRECTION, WIDEN SR-126 FR 4 TO 6 LANE FROM 680 METERS WEST OF THE I-5/SR-126 INTERCHANGE, EAST TO NEWHALL RANCH ROAD, WIDEN LANE WIDTH NEWHALL RANCH ROAD TO THE EXISTING RIGHT OF WAY LIMIT, WIDEN I-5/SR-126 SEPARATION AND FRONTAGE ROAD UNDERCROSSING AT SR-126/THE OLD ROAD TO ACCOMODATE SR-126 WIDENING.	√	√			√					
LA	S	LOS ANGELES COUNTY	LA996381	LA996381	5	56.6	56.6	OLD RD	AT SEDONA WAY		HASLEY CANYON/I-5 IC RECONSTRUCTION: NEW SB HOOK ON-RAMP @ OLD ROAD & SEDONA WY; REPLACE EXISTING SB OFF-RAMP W/NEW HOOK OFF RAMP AT OLD ROAD OPPOSITE SEDONA WY; REPLACE EXISTING 2-LN HASLEY CYN BRIDGE OVERPASS W/4-LN STRUCTURE; ON I-5 CONSTRUCT ~600FT NB AUX LANE @ HASLEY CYN AND REALIGN/WIDEN NB OFF-RAMP TO 2 LNS AND SB ON-RAMP TO 2 LNS	CONSTRUCT A NEW SOUTHBOUND HOOK ON-RAMP	√	√	√							
LA	S	LOS ANGELES COUNTY	LA0D462	LA0D462	5	29.6	30.7	I-5 PARKER RD INTERSECTION	I-5 PARKER RD INTERSECTION	I-5 PARKER RD INTERSECTION	I-5 PARKER RD INTERSECTION IMPROVEMENTS INCLUDING BRIDGE WIDENING AND LANE ADDITIONS. WIDEN SB ON-RAMP FROM 1 TO 2 LNS, WIDEN BRIDGE TO PROVIDE 2 WB THRU LNS AND 1 EB THRU LANE. PARKER RD EXISTING: 1 THRU LN EACH DIR, PROPOSED: 2 THRU LNS EACH DIR.	FOR SOUTHBOUND ON-RAMP, WIDEIN SB 0N-RAMP FROM 1 TO 2 LANES. WIDEN BRIDGE TO PROVIDE 2 WB THRU LANES AND 1 EB THRU LANE PARKER ROAD EXISTING: 1 THROUGH LANE EACH DIRECTION; PROPOSED: 2 THROUGH LANES EACH DIRECTION.	√						√			
LA	S	LOS ANGELES COUNTY	LA0D463	LA0D463	5	59.5	0.0	I-5 LAKE HUGHES RD-INTERSECTION	I-5 LAKE HUGHES RD- INTERSECTION	I-5 LAKE HUGHES RD- INTERSECTION	I-5 LAKE HUGHES RD- INTERSECTION IMPROVEMENTS & WIDENING. NB RAMPS (ON/OFF): WIDEN NB OFF APPROACH TO PROVIDE 1 LEFT TURN LN, 1 SHARED LEFT/THRU LN, 1 EXCLUSIVE RIGHT TURN LN; RESTRIPE LAKE HUGHES RD AT IC EB TO PROVIDE 1 THRU LN AND 1 SHARED THRU/RIGHT AND WB TO ADD 1 RIGHT TURN LN. LAKE HUGHES RD EXISTING: 2 THRU LANES EACH DIR; PROPOSED: 3 THRU LNS EACH DIR	NB RAMPS (ON AND OFF): WIDEN NB OFF APPROACH TO PROVIDE 1 LEFT TURN LANE, 1 SHARED LEFT/THRU LANE, AND 1 EXCLUSIVE RIGHT TURN LANE; RESTRIPE LAKE HUGHES RD AT INTERCHANGE EB TO PROVIDE 1 THRU LANE AND 1 SHARED THRU/RIGHT AND WB TO ADD 1 RIGHT TURN LANE (from x to y) LAKE HUGHES ROAD EXISTING: 2 THROUGH LANES EACH DIRECTION; PROPOSED: 3 THROUGH LANES EACH DIRECTION	√						√			
LA	S	CALTRANS / LOS ANGELES COUNTY MTA	1HL08D01	LA0G138 LA0G139	10	18.0	31.2	I-10	ALAMEDA ST / UNION STATION	I-605	CONVERSION OF HIGH OCCUPANCY VEHICLE (HOV) LANES TO HIGH OCCUPANCY TOLL (HOT) LANES ON I-10 FROM ALAMEDA ST/UNION STATION TO I-605, AND RESTRIPE TO ADD 2ND LANE (WB – SANTA ANITA AVE TO I-710; EB – I-710 to BALDWIN AVE).	OPERATING SEGMENT 1 (OS 1) ALSO INCLUDES PROJECTS # 1HL08D03, 1TR08D08, 1TR08D07A, 1TR08D07B							√			
LA	S	CALTRANS	LA000359	LA000359	10	28.0	31.2	I-10	BALDWIN AVENUE	ROUTE 605	IN EL MONTE AND BALDWIN PARK FROM BALDWIN AVE TO ROUTE 605 HOV LANES (8+0 TO 8+2) AND TOS PROJECTS. (EA# 10695, 22350, 22340 PPNO 0295M, PPNO 2969,PPNO 2968)	ADD 1 HOV IN EACH DIRECTION	√	√	√							

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LA	S	CALTRANS	LA0F098	LA0F098	10	31.1	32.3	I-10 / I-605			L.A. COUNTY I-10 AND I-605 IC; CONSTRUCT ONE/TWO LANE BRIDGE STRUCTURE, BRANCHING OFF SB OF RTE 605 TO EB OF RTE 10 AT-GRADE CONNECTOR RAMP (EA 24540, PPNO 3529) CONSTRUCT ONE-LANE CONNECTOR FROM SB I-605 TO WB I-10	I-605 SOUTH TRANSITION TO I-10 EAST - CONSTRUCT FLYOVER CONNECTOR FROM SB I-605 TO EB I-10 TO REPLACE THE EXISTING SHARED AT-GRADE CONNECTOR AND ELIMINATE THE WEAVING CONFLICT; AND --CONSTRUCT ONE-LANE CONNECTOR FROM SB I-605 TO WB I-10	√	√					√			
LA	S	CALTRANS	LA01342	LA01342	10	31.2	33.4	I-10	ROUTE 605	PUENTE AVENUE	RT 10 FROM RT 605 TO PUENTE AVE HOV LANES (8+0 TO 8+2) (EA# 117070, PPNO 0306H)□ PPNO 3333 3382 AB 3090 REP	ADD 1 HOV IN EACH DIRECTION	√	√					√			
LA	S	CALTRANS	LA000548	LA000548	10	33.4	37.5	I-10	PUENTE	CITRUS	FROM PUENTE TO CITRUS HOV LANES FROM 8 TO 10 LANES (C-ISTEA 77720, 95 STIP-IIP) (EA# 117080, 11172, 1170U, PPNO# 0309N, 0309S)	8 TO 10 LANES (2 HOV)	√	√						√		
LA	S	CALTRANS	LA0B875	LA0B875	10	37.5	42.4	I-10	CITRUS	ROUTE 57/210	I-10 FROM CITRUS TO ROUTE 57/210 ONE HOV LANE IN EACH DIRECTION. - P/E ONLY (EA# 11934, PPNO# 0310B)	I-10 - CONSTRUCT ONE HOV LANE IN EACH DIRECTION FROM CITRUS AVENUE TO 10/57/210 INTERCHANGE.	√	√						√		
LA	S	CALTRANS	LA962201	LA962201	14	24.3	27.1	SR-14	ROUTE 57	ROUTE 126	NEAR SANTA CLARITA, FROM RT 5 TO 126/S.F. RD HOV PROJECT - ADD 1 HOV LN EACH DIR (EA# 119843, PPNO# 0380G)	ADD 1 HOV IN EACH DIRECTION	√	√	√							
LA	S	CALTRANS	LA01348	LA01348	14	44.0	54.5	SR-14	ESCONDIDO CANYON ROAD	MOUNTAIN SPRING ROAD	NEAR PALMDALE FROM ESCONDIDO CYN RD TO MOUNTAIN SPRING ROAD: WIDEN FWY FOR ONE HOV IN EACH DIRECTION. (EA-117101, PPNO# 0389N)	WIDEN FWY FOR ONE HOV IN EACH DIRECTION	√	√	√							
LA	S	CALTRANS	LA01347	LA01347	14	53.6	60.7	SR-14	VINCENT RAMP UC	AVENUE P-8	RT 14 FROM VINCENT RAMP UC TO AVE P-8 HOV LANES (4 TO 6 LANES)(2001 CFP,8348). (EA # 125201, PPNO# 0391A)	ADD 1 HOV IN EACH DIRECTION NOTE:CHG'D BEGINNING LIMIT NAME BUT SAME POST MILES.	√	√	√							
LA	S	LOS ANGELES COUNTY MTA	1H0101		14	60.7	65.7	SR-14	Ave. P-8	Ave. L	ADD 1 HOV LANE EACH DIRECTION ON THE SR-14 FROM AVE. P-8 TO AVE. L										√	
LA	S	LANCASTER	LA0C8102	LA0C8102	14	68.9	0.0	AVE I	AT ROUTE 14 INTERCHANGE		SR-14 FREEWAY/AVENUE I INTERCHANGE IMPROVEMENTS-WIDENING AVE I FROM 2 TO 3 LANES IN EACH DIRECTION, ADDING DUAL LEFT TURN LANES, AND WIDENING A BRIDGE STRUCTURE. PPNO 3123.	WIDEN FROM 2 TO 3 LANES IN EACH DIRECTION AND WIDEN BRIDGE.	√	√			√					
LA	S	ALAMEDA TRANSPORTATION CORRIDOR AGENCY	LA0D45 (Part 1 of 2)	LA0D45 (Part 1 of 2)	47	2.7	5.8	SR-47 EXPRESSWAY	OCEAN BLVD	ALAMEDA STREET	SR-47 EXPRESSWAY - SCHUYLER HEIM BRIDGE REPLACEMENT (2 MF + 1 AUX NB, 3 MF + 1 AUX SB); CONSTRUCT NEW LIMITED-ACCESS, GRADE-SEPARATED EXPRESSWAY (4 TO 7 LNS) ALONG NEW ALIGNMENT FROM OCEAN BLVD TO ALAMEDA ST/PCH	BRIDGE REPLACEMENT AND ELEVATED EXPRESSWAY	√	√						√		
LA	S	ALAMEDA TRANSPORTATION CORRIDOR AGENCY	LA0D45 (Part 2 of 2)	LA0D45 (Part 2 of 2)	47	2.7	5.8	SR-47 EXPRESSWAY	OCEAN BLVD		SR-47 EXPRESSWAY - CONSTRUCT NEW 2-LANE FLYOVER FROM EB OCEAN BLVD (1,200 METERS W/O OCEAN BLVD / SR-47 INTERSECTION) TO NB SR-47 (AT THE NEW BRIDGE)	NEW 2-LANE FLYOVER FROM EB OCEAN BLVD TO NB SR-47	√	√						√		
LA	S	CALTRANS	LA996137	LA996137	60	11.7	23.0	SR-60	ROUTE 605	BREA CANYON ROAD	RTE. 60 HOV LNS. FROM RTE. 605 TO BREA CANYON RD. -- CONSTRUCT ONE HOV LANE IN EACH DIRECTION) (CFP: 358, 4262, 6137=67,150+IIP: 5,100) (EA#129410, 129421, PPNO 0482R,0482RA)	ADD 1 HOV IN EACH DIRECTION	√	√				√				
LA	S	INDUSTRY	LA0D399	LA0D399	60	21.5	23.0	SR-60 AT LEMON AVE INTERSECTION	SR-60 AT LEMON AVE iNTERSECTION	SR-60 AT LEMON AVE iNTERSECTION	CONSTRUCTION OF NEW PARTIAL DIAMOND INTERCHANGE AT LEMON AVE - EB/WB OFF 2 LNS. EB/WB ON 2 LNS (1 IS HOV). (SAFETEA-LU # 587).	CONSTRUCT EB OFF-RAMP WITH 2 LANES, EB-ON RAMP WITH 2 LANES (1 IS HOV), WB-ON-RAMP WITH 2 LANES (1 IS HOV), AND WB-OFF-RAMP WITH 2 THRU LANES PER DIRECTION	√	√					√			
LA	S	CALTRANS	12570	12570	60	22.4	25.0	SR-57 / SR-60 CONNECTOR	OLD BREA CANYON ROAD	GRAND AVENUE	RTE. 57/60 HOV CONNECTOR INDUSTRY FROM OLD BREA CANYON ROAD TO GRAND AVENUE - HOV DIRECT CONNECTORS AND COLLECTOR ROAD (BOTH DIRECTIONS) (EA# 12570, PPNO# 0499Q)	ADD HOV DIRECT CONNECTORS AND COLLECTOR ROAD BOTH DIRECTIONS	√	√	√							
LA	S	INDUSTRY	LA0D393	LA0D393				GRAND AVENUE	ST 57/60		GRAND AVENUE/SR 57/60 INTERCHANGE MODIFICATION: RESTRIPE THE EXISTING GRAND AVE, ADD WB ON-RAMP AND ADD WB AUX LANE, ADD SECOND SB LFT TURN LN AT EB RAMP	CONSTRUCTING AN AUXILIARY LANE FROM THE NEW GRANT AVE WESTBOUND ON-RAMP TO THE SR-60 BYPASS CONNECTOR. (WEST OF GRAND AVENUE)		√					√			
LA	S	LOS ANGELES COUNTY MTA	1M0104		60	23.6	25.5	SR-57/SR-60			SR-57/SR-60 INTERCHANGE IMPROVEMENT (MAY INCLUDE THE CONSTRUCTION OF HOV DROP RAMPS AT GRAND AVE. (RTP ID 1H0405))										√	
LA	S	CALTRANS	LA0B951	LA0B951	71	0.5	4.8	SR-71	I-10	Mission Blvd	Route 71: ROUTE 10 TO ROUTE 60 - EXPRESSWAY TO FREEWAY CONVERSION - ADD 1 HOV LANE AND 1 MIXED FLOW LANE .	ADD 1 HOV AND 1 MIXED FLOW IN EACH DIRECTION	√	√							√	
LA	S	CALTRANS	1M1001		71	0.5	4.8	SR-71	Mission Blvd	SR-60	MISSION TO RTE 60 - EXPRESSWAY TO FREEWAY CONVERSION - ADD 1 HOV LANE AND 1 MIXED FLOW LANE . (2001 CFP 8349, TCRP #50) (EA# 210600, PPNO 2741) SAFETEA-LU # 3771	ADD 1 HOV AND 1 MIXED FLOW IN EACH DIRECTION	√	√							√	

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															2008	2009	2010	2012	2014	2020	2030	2035
LA	S	CALTRANS	16931	16931	90	1.2	1.8	SR-90	MINDANAO WAY	CULVER BLVD	IN MAR VISTA FROM MINDANAO WAY TO CULVER BOULEVARD - CONSTRUCT UNDER- CROSSING, WIDEN CULVER BOULEVARD FROM 6 TO 8 LANES, AND MODIFY RAMPS (DREAMWORKS) (EA# 1693C, PPNO 2012A) 3543	WIDEN CULVER BLVD FROM 6 TO 8 LANES AND CONSTRUCT UNDERCROSSING.	√	√	√							
LA	S	CALTRANS	16932	16932	90	1.8	1.8	SR-90	AT CENTINELA AVENUE INTERCHANGE		IN MAR VISTA AT CENTINELA AVENUE INTERCHANGE - MODIFY SIGNALS, WIDEN OFF RAMPS FROM 2 TO 3 LANES, AND RESTRIPE CENTINELLA AVENUE. (EA# 1693A, PPNO 2012B)	WIDEN OFF RAMPS FROM 2 TO 3 LANES	√		√							
LA	S	CALTRANS	LA98STIP4	LA98STIP4	101	0.4	0.9	US-101	LOS ANGELES STREET	CENTER STREET	RT. 101 SB IMPRVMNTS FROM L.A. ST TO CENTER ST ELMNATE HEWITT ST ON /OFF RAMPS & VIGNES OFF RAMP. ADD NEW ON RAMP AT GAREY ST. EA 199U1,119911,PPNO 0567P (AB3090REP $22599)	ELIMINATE HEWITT STREET ON/OFF RAMPS AND VIGNES OFF RAMP	√	√	√							
LA	S	LOS ANGELES COUNTY MTA	1M0802		101	10.2	10.8	US-101	AT UNIVERSAL TERRACE PARKWAY		US-101/UNIVERSAL TERRACE PARKWAY (CAMPO DE CAHUENGA WAY) INTERCHANGE IMPROVEMENTS	- Relocate right-turn-in-only southbound US-101 on-ramp from Ventura Boulevard east of Fruitland Drive to intersection of Fruitland Drive and Ventura Boulevard. Add signal and stripe eastbound left-turn lane, to access US-101 southbound. - Add US-101 southbound off-ramp to Ventura Boulevard at relocated Ventura Boulevard and Fruitland Drive intersection. - Add US-101 southbound on-ramp from Universal Terrace Drive to connect with the relocated Fruitland Drive on-ramp. Widen US-101 bridge at Lankershim Boulevard. - Add right-turn pocket to existing US-101 northbound off-ramp at Universal Terrace Parkway. - Modify signal at US-101 and Universal Terrace Parkway intersection to allow all movements.						√			
LA	S	CALTRANS	LA0D31	LA0D31	101	15.3	16.1	US-101	VAN NUYS BLVD		CONSTRUCT ONE ADDITIONAL LANE FOR BOTH NORTH AND SOUTH BOUND OFF-RAMPS AT VAN NUYS BLVD. (RIP 1 M, IIP 8 M) (EA # 199630) (PPNO 2789) (DEMO= NAT. CORRIDOR PLANNING AND BORDER DEV.)	CONSTRUCT 1 ADD LANE FOR NORTH AND SOUTH BOUND OFF RAMPS	√	√					√			
LA	S	LONG BEACH	1M0132		103	0.0	0.0	SR-103	PIER B ST / TERMINAL ISLAND FWY		PIER B ST/TERMINAL ISLAND FWY INTERCHANGE IMPROVEMENT - NEW NB ON-RAMP TO SR-103						√					
LA	S	CALTRANS	17850	17850	105	0.7	1.0	I-105	SEPULVEDA BLVD.	NASH STREET	LOS ANGELES - SEPULVEDA BLVD TO NASH STREET - WIDEN N/B OFF-RAMP @ SEPULVEDA BL FROM W/B RTE 105. FROM 1 LANE TO 2 LANES. (PPNO# 2119, EA# 17850K) (IIP $7,394)	WIDEN NORTH BOUND OFF RAMP AT SEPULVEDA BLVD FROM WESTBOUND ROUTE 105 FROM 1 TO 2 LANES	√	√			√					
LA	S	CALTRANS / LOS ANGELES COUNTY MTA	1HL08D03	LA0G138	110	10.0	22.0	I-110	182ND ST / ARTESIA TRANSIT CENTER	ADAMS BLVD (DOWNTOWN LOS ANGELES)	CONVERSION OF HIGH OCCUPANCY VEHICLE (HOV) LANES TO HIGH OCCUPANCY TOLL (HOT) LANES ON I-110 FROM 182ND ST / ARTESIA TRANSIT CENTER TO ADAMS BLVD (TWO LANES PER DIRECTION).	OPERATING SEGMENT 1 (OS 1) ALSO INCLUDES PROJECTS # 1HL08D01, 1TR08D08, 1TR08D07A, 1TR08D07B						√				
LA	S	CALTRANS	LA0D328	LA0D328	110	21.2	22.8	110 (HARBOR FREEWAY)	12TH STREET	110/I-10 CONNECTOR	IN LOS ANGELES FROM 8TH STREET ON RAMP TO I-110/I-10 CONNECTOR, CONSTRUCT NB & SB AUXILIARY LANES AND MODIFY RAMPS (EA 2411U, PPNO 3343) CONVERT EXIST'G SB AUX LANE TO OPTIONAL LANE & MODIFY RAMPS; NB HARBOR FWY, FROM NORTH END OF 12TH ST UC TO NORTH END OF THE 7TH ST UC, ADD STORAGE LANE ON THE MAINLINE & RECONSTRUCT RAMP		√	√				√				
LA	S	CALTRANS	LA0D480	LA0D480	126	0.0	4.6	SR-126	LOS ANGELES COUNTY LINE	CASTAIC CREEK BRIDGE	ROUTE SR-126/LOS ANGELES-VENTURA COUNTY LINE TO CASTAIC CREEK BRIDGE EAST INTERSECTION IMPROVEMENTS, ROADWAY WIDENING, AND CONSTRUCTION OF A NEW URBAN GRADE SEPARATION	Existing 2 lanes each direction Construct: - New at-grade intersections at County Line Road and Homestead Road - At-grade intersection improvements at San Martinez Grande Canyon Road, Chiquito Landfill, and Wolcott Way (includes widening, right turn lanes, and left turn lanes along and on SR-126) - New full movement, urban grade separation at Long Canyon Road - Add 2 lanes (1 each dir) from Long Canyon Road to Castaic Creek Bridge east - ADD 1 SB AUX LANE FROM LONG CANYON RD TO WOLCOTT WAY	√	√					√			
LA	S	LOS ANGELES COUNTY	LA0C8099	LA0C8099	126	0.5	0.5	SR-126	COMMERCE CENTER DRIVE		SR-126/COMMERCE CTR DR NEW IC. CONSTRUCT A PARTIAL CLOVERLEAF, GRADE SEPARATED IC AND WIDEN SR-126 FROM .76 KM EAST OF IC TO .85 KM WEST, FROM 4 TO 6 LANES. (2001 CFP 8099) (PPNO 3118)	CONSTRUCT A NEW INTERCHANGE - PARTIAL CLOVERLEAF	√	√					√			
LA	S	CALTRANS	LA962210	LA962210	126	5.8	7.1	SR-126	MAGIC MOUNTAIN PARKWAY		MAGIC MTN. PKWAY FROM I-5 TO MCBEAN PKWY IMPROVEMENT PROJECT WIDEN EXISTING, CONV. HWY FROM 2 TO 6 LANES. (EA# 142601, PPNO 0673P)	WIDEN FROM 2 TO 6 LANES	√	√	√							

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LA	S	CALTRANS	18850	18850	134	1.4	2.3	SR-134	PASS AVE	CALIFORNIA STREET	ON STATE RTE 134, BETWEEN PASS AVE AND CALIFORNIA ST (MEDIA DISTRICT) -- MODIFY RTE 134/HOLLYWD WAY I/C, NEW RAMPS BTWN HOLLYWOD WAY & ALAMEDA (2001 CFP, 8415). (PPNO 2223).	ADD NEW RAMPS BETWEEN HOLLYWOOD WAY & ALAMEDA	√	√			√					
LA	S	CALTRANS	LA0D451	LA0D451	138	51.4	69.4	SR-138	AVE T	ROUTE 18	ROUTE 138 FROM AVE. T TO ROUTE 18-WIDEN 2 TO 4 THRU LANES WITH MEDIAN TURN LANE. EA# 12721,12722,12723,12724,12725,12728. PPNO# 3325,3326,3327,3328,3329,3331	WIDEN FROM 2 TO 4 LANES	√							√		
LA	S	CALTRANS	LA0D174	LA0D174	138	61.5	63.6	SR-138	AT TWIN BRIDGES		ROUTE 138 WIDENING FROM 2 LANES TO 4 LANES-WIDENING AT TWIN BRIDGES (SEG.11B) EA# 127261, PPNO 3330 (SAFETEALU # 2542)	WIDEN FROM 2 TO 4 LANES	√	√	√		~~√~~					
LA	S	CALTRANS	LA0D180	LA0D180	138	63.6	67.3	SR-138	165TH STREET EAST	LARGO VISTA ROAD	ROUTE 138 WIDENING FROM 2 TO 4 LANES WITH MEDIAN TURN LANE NEAR LIANO FROM 0.30 MILES WEST OF 165TH STREET EAST TO 0.37 MILES WEST OF 190TH STREET EAST. EA# 127271, PPNO 0694Q.	WIDEN FROM 2 TO 4 LANES	√	√				√				
LA	S	CITY OF CARSON	LAF1103	LAF1103	405	9.3	9.9	RTE 405	223rd STREET, SOUTH OF I-405	220th STREET NORTH OF THE IC	Route 405: Wilmington Avenue Interchange Modification at I-405. Improve I-405/Wilmington Avenue interchange by adding a new northbound on-ramp and widening of Wilmington Avenue, 223rd, and existing on- and off-ramps.	ADD NEW NORTHBOUND ON-RAMP FROM SOUTHBOUND WILMINGTON AVE TO NORTHBOUND I-405 IN THE NORTHWEST QUADRANT OF THE IC WIDEN SOUTHBOUND ON-RAMP TO PROVIDE A CARPOOL BYPASS LANE WIDEN WILMINGTON AVE 3 LANES IN EACH DIR.	√						√			
LA	S	CARSON, CITY OF	927835SS	927835SS	405	12.5	0.0	I-405	AT DEL AMO BLVD		IN CARSON CITY AT DEL AMO BOULEVARD - NEW 6 LANE OVERCROSSING (TEA21-#1173)	ADD NEW 6 LANE OVERCROSSING	√	√	√							
LA	S	CALTRANS	11985	11985	405	21.5	26.3	I-405	ROUTE 105	ROUTE 90	NEAR HAWTHORNE AND CULVER CITY FROM ROUTE 105 TO ROUTE 90 - 6 LANE FREEWAY, ADD 2 HOV LANES AND SOUNDWALLS. (EA# 119851, PPNO# 0824B)	ADD 1 HOV LANE IN EACH DIRECTION	√	√	√							
LA	S	CALTRANS	49160	49160	405	22.2	23.4	I-405	AT ARBOR VITAE AVENUE		IN INGLEWOOD AT ARBOR VITAE AVENUE-CONSTRUCT SOUTH HALF OF INTER-CHANGE. EA# 491601, PPNO 0831)	CONSTRUCT SOUTH HALF OF INTERCHANGE	√	√						√		
LA	S	CALTRANS	LA0D332	LA0D332	405	24.4	25.8	I-405	LA TIJERA BLVD	JEFFERSON BLVD	IN LOS ANGELES: FROM LA TIJERA BLVD TO JEFFERSON BLVD; ADD AUXILIARY LANE NB (PPNO: 3348 EA: 24130). WIDEN CENTINELA & SEPULVEDA UNDERCROSSING, WIDEN/REALIGN ON/OFF RAMPS AT LA TIJERA, SEPULVEDA, JEFFERSON.	WIDENING CENTINELA AVE UNDERCROSSING & SEPULVEDA BLVD UNDERCROSSING, WIDENING & REALIGNING ON- & OFF-RAMP AT LA TIJERA BLVD, SEPULVEDA BLVD AND JEFFERSON BLVD. EXISTING - 4 MF EACH DIR + 1 AUX LN EACH DIR, TOTAL 10 LNS; 1 AUX LN WILL BE ADDED NB FOR A TOTAL OF 11 LNS	√	√					√			
LA	S	CALTRANS	1178A	1178A	405	25.9	29.5	I-405	ROUTE 90	ROUTE 10	IN LOS ANGELES AND CULVER CITY FROM ROUTE 90 TO ROUTE 10 - HOV LANES (SB 5+0 TO 5+1; NB 5+0 TO 5+1 HOV) (2206LK CFP) OBLIGATED 6207 (034)	HOV LANES (SB 5+0 TO 5+1; NB 5+0 TO 5+1 HOV)	√	√		√						
LA	S	CALTRANS	LA0B408	LA0B408	405	28.8	39.0	I-405	I-10	US 101	IN LA FROM RTE 10 TO RTE 101 WIDEN FOR NB HOV LANE & MODIFY RAMPS, ADD NEW WB ON RAMP AT SUNSET & HOV INGRESS/EGRESS AT SANTA MONICA BLV(EA 12030, PPNO 0851G, SAFETLU SECTION 1302 #18, 1934 #20)	IN LA FROM RTE 10 TO RTE 101 WIDEN FOR HOV LANE & MODIFY RAMPS	√							√		
LA	S	CALTRANS	LA195900	LA195900	405	29.2	32.1	I-405	WATERFORD AVENE	ROUTE 10	RTE. 405 - WATERFORD AVE TO RTE 10, CONSTRUCT 1 HOV LANE IN EACH DIRECTION (2001 CFP 8354) (EA# 195900 ,PPNO 2333). GARVEE 12/03		√	√	√							
LA	S	CALTRANS	20120K	20120K	405	38.7	39.4	I-405	ROUTE 405/101 CONNECTOR		IN LOS ANGELES ON ROUTE 405/101 CONNECTOR GAP CLOSURE (2001 CFP 7248, 2001 CFP 8347) (EA# 20120K, PPNO 2336). GARVEE APPROVED 12/2003.	CONNECTOR GAP CLOSURE	√	√	√							
LA	S	CALTRANS	LA0C8344	LA0C8344	405	38.9	40.1	I-405	GREENLEAF ST				√	√	√							
LA	S	CALTRANS	LA0D77	LA0D77	405	39.4	40.5	I-405 & US 101 INTERCHANGE	SB RTE 405	NB & SB US 101	CITY OF L.A.-AT ROUTE 405 & US 101 INTERCHANGE. REPLACE/CONSTRUCT FREEWAY CONNECTOR (2 LNS) FROM SB RTE 405 TO NB&SB US 101 & ADD AUX LANE FROM BURBANK TO NB 101 CONNECTOR (EA# 199610, PPNO 2787)	CONSTRUCT FREEWAY CONNECTOR FROM SB RTE 405 TO NB&SB US 101 & ADD AUX LANE FROM BURBANK TO NB 101 CONNECTOR EXISTING CONNECTOR IS ONE LANE, REPLACING THAT CONNECTOR WITH A BRAND NEW TWO LANE CONNECTOR.	√		√				√			
LA	S	LOS ANGELES COUNTY MTA	1C0401		710	5.0	25.0	I-710	PORTS OF LOS ANGELES AND LONG BEACH	SR-60	I-710 CORRIDOR USER-FEE BACKED CAPACITY ENHANCEMENT - WIDEN TO 5 MIXED FLOW + 2 DEDICATED LANES FOR CLEAN TECHNOLOGY TRUCKS (EACH DIRECTION), AND INTERCHANGE IMPROVEMENTS										√	
LA	S	SOUTH GATE	LA996347	LA996347	710	18.4	18.4	I-710	FIRESTONE BLVD	SOUTHERN AVE	I-710/FIRESTONE BLVD.IC, PHASE IV (FIRESTONE BLVD. BRIDGE WIDENING OVER L.A RIVER) PROJECT NO. HP21L-5257 (016) (HBRR: 53C1972) WIDEN FROM 4.7M TO 6.4M, ON-RAMP MOD. REHABILITATE 5-LANE BRIDGE TO 6 LANE, ADD SHOULDERS, UPGRADE BRIDGE RAILINGS.		√	√					√			

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LA	S	VERNON	17190	17190	710	21.9	22.0	I-710	ATLANTIC BLVD	BANDINI BLVD	BTWN ATLANTIC BL & BANDINI BL - UNDERCROSSINGS- PHASE I: RECONFIG NB 710 ON-RAMP - CONSTRUCT ~400 MTR LOOP RAMP LOCATED ~300 MTRS N/O ATLANTIC/BANDINI, NEW RAMP CROSSES ATLANTIC ON NEW BRIDGE STRUCTURE CONNECTING TO EXISTING ON-RAMP W/O ATLANTIC; RELOCATE NB ON-RAMP; EXTEND SB ON-RAMP @ ATLANTIC ~120 MTRS W/O EXISTING RAMP TERMINUS AND 2-LN FACILITY W/O DIVERGENCE PT AND NB OFF-RAMP AT BANDINI; EXTEND NB RAMP TO 2 LANES	RECONFIGURATION OF THE NORTHBOUND 710 ON-RAMP FROM ATLANTIC/BANDINI BLVD - CONSTRUCT APPROX 400 METER-LONG LOOP RAMP, LOCATED APPROX 300 METERS NORTH OF THE ATLANTIC/BANDINI INTERSECTION. THE NEW RAMP CROSSES ATLANTIC BLVD ON A NEW BRIDGE STRUCTURE CONNECTING TO THE EXISTING ON-RAMP WEST OF ATLANTIC BLVD.AND RELOCATE I-710 NORTHBOUND ON RAMP	√	√	√							
LA	S	LOS ANGELES COUNTY MTA	1M0101		710	26.5	32.7	SR-710 Gap Closure	Valley Boulevard	California Bl & Pasadena Ave	CONSTRUCT 4 TOLL LANES IN EACH DIRECTION IN TUNNEL TO COMPLETE THE SR-710 FREEWAY	RETAIN EXISTING CONNECTIVITY. DO NOT ADD NB OR SB ACCESS WHERE IT DOES NOT CURRENTLY EXIST.									√	
LA & SB	S	TBD	1C0404		TBD	0.0	0.0	HIGH DESERT CORRIDOR	I-5 in LA County	US-395 in San Bernardino County (connecting with Route 220 project #20020144)	HIGH DESERT CORRIDOR (TOLL FOR LA COUNTY PORTION). E-W 4 MF EACH DIR ALONG AVE P-8 FROM SR-14 TO 50TH ST E, 3 MF EACH DIR FROM 50TH ST E TO 240TH ST E, EXWY 3 LNS EACH DIR FROM 240TH ST E TO US-395 (CONNECTING AT SB CO #20020144). N-S EXWY 2 LNS EACH DIR ALONG AVE D (SR-14 TO OLD SIERRA HWY), AVE E (TO 90TH ST E), 90TH ST E (CONNECTING TO AVE P-8 FWY AT 126TH ST E), AND SOUTH TO SR-138 NEAR 150TH ST E. E-W EXWY 3 LNS EACH DIR ON SR-138 FROM I-5 TO SR-14.	Note: this corridor project is located in both LA and SB counties; this single project entry covers both counties						√			
LA	L		LAE2246	LAE2246	0	0.0	0.0	RANCHO VISTA BL	3RD ST E & 8TH ST E		RANCHO VISTA BLVD - WIDEN INTERSECTION AT 3RD ST EAST AND INTERSECTION AT 8TH ST. EAST/LOCKHEED WAY - 6 LANES; MODIFY TRAFFIC SIGNALS, DRAINAGE, SIDEWALKS, MEDIANS, UTILITY RELOCATIONS						√					
LA	L	AGOURA HILLS	LA0D344	LA0D344	0	0.0	0.0	REYES ADOBE RD	OVERCROSSING OF THE 101 FREEWAY		WIDENING OF THE REYES ADOBE ROAD OVERCROSSING OF THE 101 FREEWAY FROM 3 LANES TO 6 LANES, ALONG WITH BIKE LANES AND SIDEWALKS	FROM 3 LANES TO 6 LANES	√	√				√				
LA	L	AGOURA HILLS	LA996343	LA996343	101	34.4	35.3	US-101	KANAN RD. INTERCHANGE		U.S. 101 FWY/KANAN RD. INTERCHANGE IMPROVEMENTS SAFETEA-LU # 3099 NB-OFF RAMP 1 TO 2 LANES	THERE ARE NO ADDITIONAL THRU LANES TO BE ADDED TO THE 101 FREEWAY BUT THERE IS ONE ADDITIONAL LANE ADDED TO THE NB OFF RAMP (1 to 2)	√	√				√				
LA	L	AGOURA HILLS	1A1001	LA0G230	101	33.0	34.4	US-101	PALO COMADO CANYON BRIDGE AT CHESEBRO RD		U.S. 101 FREEWAY AND PALO COMADO CANYON ROAD BRIDGE-AT CHESEBRO ROAD (PM 33.0/34.4). WIDENING OF BRIDGE FROM 2-LANES TO 4-LANES, CONSTRUCTION OF SIDEWALKS AND BIKE LANES, MODIFICATION OF ON/OFF RAMPS, AND MODIFICATION OF VARIOUS INTERSECTIONS.							√				
LA	L	ALHAMBRA	LA927107	LA927107	0	0.0	0.0	FREMONT AVE	COMMONWEATLH ROAD	VALLEY BLVD	ON FREMONT AVE FROM COMMONWEALTH RD TO VALLEY BL - ADD SOUTHBOUND THROUGH LANE AND RIGHT TURN LANE	ADD SOUTHBOUND LANE	√	√	√							
LA	L	ALHAMBRA	LA990356	LA990356	0	0.0	0.0	MISSION RD	1ST STREET	EAST CITY LIMITS	MISSION RD RECONSTRUCTION & WIDEN FROM 1ST ST TO EAST C/L (TEA21#-654) -- FROM 2 TO 5 LANES IN EACH DIRECTION (3,000 FT)	WIDEN FROM 2 TO 5 LANES IN EACH DIRECTION	√	√	√							
LA	L	ALHAMBRA	LAE3018	LAE3018	0	0.0	0.0	VALLEY BL	I-710	MARGUERITA	VALLEY BLVD CAPACITY IMPROVEMENTS BETWEEN 710 AND MARGUERITA. ADD 1 LN EACH DIR (CURRENTLY PARKING LNS CONVERT TO TRAVEL LANES DURING PEAK)	AND 1 LANE IN EA DIR. FROM 710 TO MARGUERITA (CURRENTLY PARKING LANE CONVERTING TO TRAVEL LANES DURING PEAK HOURS WEST PEAK IS MORNING AND EASTBOUND IS EVENING PEAK)	√	√				√				
LA	L	ARCADIA	LAF1197	LAF1197	0	0.0	0.0	HUNTINGTON DR.	COLORADO PLACE	SANTA ANITA AVE	Huntington Dr Capacity Improvements. MITIGATION COSTS EXCLUDED [Project involves traffic flow and capacity impr'ments incl the addition of a through lane, turn lanes & reconstruction of median & channelizing islands]	Existing - 2 lanes E/W, After Implementation - 3 westbound, Description, 2 eastbound lanes. Widening will be for .5 miles. Project will widen the Huntington Drive roadway between Colorado Place and Santa Anita Avenue to provide a third travel lane	√					√				
LA	L	AZUSA	LAE1904	LAE1904	0	0.0	0.0	AZUSA AVE AND SAN GABRIEL AVE	AZUSA AVE AND SAN GABRIEL AVE (THESE TWO STREETS CURRENTLY MERGE)		RECONSTRUCT AZUSA AVE AND SAN GABRIEL AVE FOR TWO WAY TRAFFIC IN AZUSA FROM BASELINE TO SIERRA MADRE	NO NEW LANES WILL BE ADDED. ONLY DIRECTION WILL CHANGE WITH A STRIPED MEDIAN. THE LENGTHS AND LIMITS ARE BASELINE ON SOUTH NORTHERLY TO SIERRA MADRE. SAN GABRIEL LENGTH IS 1.75 MILES.AZUSA AVE. LENGTH IS 1.62 MILES.	√	√				√				
LA	L	BALDWIN PARK	LAE2517	LAE2517	0	0.0	0.0	MAINE AVE	RAMONA BLVD	BOGART AVE	WIDEN MAINE AVE TO 4 THRU LANES IN BALDWIN PARK (2517)(E/P,PS/E ONLY)	ADD 1 THRU LANE RESULTING IN A TOTAL OF 4 THRU LANES, 1 RIGHT TURN ONLY LANE AND 1 LEFT TURN ONLY LANE	√	√					√			
LA	L	BEVERLY HILLS	LA0C8098	LA0C8098	0	0.0	0.0	SANTA MONICA BL	DOHENY DRIVE	WILSHIRE BLVD	SANTA MONICA BLVD WIDEN FROM DOHENY DR TO WILSHIRE BLVD (WIDEN FROM 4 TO 5)	WIDEN FROM 4 TO 5 LANES	√	√			√					

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LA	L	CARSON, CITY OF	LAE2198	LAE2198	0	0.0	0.0	AVALON BL	I-405		AVALON BLVD INTERCHANGE MODIFICATION AT I-405 IMPROVING AVALON/I-405 INTERCHANGE BY CONSTRUCTING A NEW SOUTHBOUND ON-RAMP, WIDENING NORTHBOUND OFF-RAMP AND ON-RAMP, Widening Avalon Blvd northbound.	1-CONSTRUCTION OF AN ADDITIONAL TRAVEL LANE ON AVALON BLVD NORTHBOUND UNDER THE I-405 FREEWAY (from x to y).(FROM 3 LANES TO 4 LANES) 2-CONSTRUCTION OF A NEW TWO LANE ON-RAMP TO I-405 SOUTHBOUND (FROM 0 LANES TO 2 LANES) 3-CONSTRUCTION OF ADDITIONAL TWO LANES ON THE EXISTING ONE LANE I-405 NB OFF-RAMP (FROM 1 LANE TO 3 LANES). 4-CONSTRUCTION OF ADDITIONAL TWO LANES ON THE EXISTING ONE LANE I-405 SB OFF-RAMP (FROM 1 LANE TO 3 LANES) 5-CONSTRUCTION OF A SHORT FIVE LANE CONNECTOR ROADWAY FROM THE END OF I-405 SB OFF-RAMP TO AVALON BLVD (WIDENING FROM EXISTING 2 LANES TO 3 LANES WITHIN EXISTING CALTRANS RIGHT OF WAY)	√	√					√			
LA	L	CARSON, CITY OF	LA0D169	LA0D169	0	0.0	0.0	BROADWAY	MAIN STREET	GRIFFITH STREET	BROADWAY IMPROVEMENTS FROM MAIN ST TO GRIFFITH ST. CONSTRUCTION OF MISSING CURB & GUTTER AND RECONSTRUCTION OF EXISTING PAVEMENT AND UNDERGROUNDING THE OVERHEAD POWER LINES.	WIDEN BROADWAY AND ADD 1 LANE ON EACH SIDE OF EXISTING ROADWAY ;EXISTING:1 LANE IN EACH DIRECTION; FUTURE- 2 LANES EACH DIRECTION	√	√				√				
LA	L	CARSON, CITY OF	LA0D173	LA0D173	0	0.0	0.0	SEPULVEDA BL	ALAMEDA STREET	EAST CITY LIMITS	SEPULVEDA BLVD, ALAMEDA ST. TO EAST CITY LIMIT. STREET WIDENING, MEDIAN ISLANDS. 4-LANE BRIDGE, & WIDEN TO 6 LANES, UPGRADE BRIDGE RAILINGS.(53C0652)	WIDEN TO 6 LANE BRIDGE	√						√			
LA	L	CARSON, CITY OF	LAE0688	LAE0688	0	0.0	0.0	WILMINGTON AVE / 223RD ST	I-405		WILMINGTON AVE/I-405 INTERCHANGE: ADD 1 LANE ON WILMINGTON AVE NB FROM 223RD ST TO I-405 NB OFF-RAMP; CONSTRUCT NEW 2-LN NB ON-RAMP FROM SB WILMINGTON AVE. WIDEN I-405 SB ON AND OFF RAMPS FROM 2 TO 3 LNS.	1-CONSTRUCTION OF AN ADDITIONAL TRAFFIC LANE ON WILMINGTON AVE. NORTHBOUND FROM 223RD STREET TO THE EXISTING I-405 NB OFF-RAMP. (from 0 to 2) 2-CONSTRUCTION OF A NEW TWO LANE I-405 NB ON-RAMP FROM SOUTHBOUND WILMINGTON AVE. (from 0 to 2) 3-CONSTRUCTION OF ADDITIONAL LANE TO THE EXISTING TWO LANE I-405 SB ON-RAMP FROM WILMINGTON AVE (from 2 to 3) 4-CONSTRUCTION OF ADDITIONAL LANE TO THE EXISTING TWO LAND I-405 SB OFF-RAMP TO WILMINGTON AVE (from 2 to 3).	√	√					√			
LA	L	COMMERCE	LAE3085	LAE3085	0	0.0	0.0	WASHINGTON BL	WESTERLY CITY BOUNDARY AT VERNO	I-5 FWY AT TELEGRAPH RD	WIDEN AND RECONSTRUCT WASHINGTON BLVD FROM WESTERLY CITY BOUNDARY AT VERNON TO I-5 FWY AT TELEGRAPH RD. Road will be widened from 2 lanes to 3 lanes in each direction, increase turn radius and medians, upgrade traffic signals and medians, upgrade traffic signals and street lighting and improve sidewalks.	ONE NEW LANE WILL BE ADDED IN EACH DIRECTION, {MTA (from x to y). Modeling notes: Project will be done in three phases: Phase 1 city boundary at Vernon to I-710; Phase 2 I-710 to Atlantic Blvd; Phase 3 Atlantic Blvd to I-5 freeway at Telegraph} EXISTING IS 2 LANES IN EACH DIRECTION; PROPOSED IS 3 LANES IN EACH DIRECTION THROUGH WIDENING	√						√			
LA	L	CULVER CITY	LAE3069	LAE3069	0	0.0	0.0	SEPULVEDA BL	JEFFERSON BLVD/PLAYA ST	GREEN VALLEY CIR	SEPULVEDA BOULEVARD WIDENING PROJECT TO ADD A THIRD SOUTHBOUND LANE ON SEPULVEDA BOULEVARD WITHIN THE EXISTING RIGHT OF WAY BETWEEN JEFFERSON BL/PLAYA STREET TO GREEN VALLEY CIRCLE.		√	√				√				
LA	L	CULVER CITY	1A1010		0	0.0	0.0	HIGUERA ST	EASTHAM DR	JEFFERSON BLVD	BRIDGE NO. 53C0876, HIGUERA ST, OVER BALLONA CR. BETWEEN EASTHAM DRIVE AND JEFFERSON BLVD. REPLACE 3 LANE BRIDGE WITH A NEW 4 LANE BRIDGE.								√		
LA	L	CULVER CITY	LAE3805	LAE3805	0	0.0	0.0	ROBERTSON / NATIONAL BL	I-10		PLANNING, DESIGN AND PRELIMINARY ENGINEERING OF ON/OFF RAMP SYSTEM AT INTERSECTION OF I-10 AND ROBERTSON / NATIONAL BLVD. (E/P & PS/E ONLY)	See attached description and map provided by LACMTA staff	√	√					√			
LA	L	CULVER CITY	LAF1166	LAF1166	0	0.0	0.0	SEPULVEDA BLVD	JEFFERSON BLVD/PLAYA STREET	GREEN VALLEY CIRCLE	Sepulveda Boulevard Widening Project to add a third southbound lane on Sepulveda Boulevard within the existing public right-of-way between Jefferson Bl/Playa Street to Green Valley Circle	Project will add a third southbound lane on Sepulveda Blvd within the existing right of way between Jefferson Blvd/Playa street and Green Valley Circle. An additional third southbound lane will be created by combining one through lane with one exclusive righ-turn lane and decreasing and existing median width by relocating and/or placing utility transmission lines underground.	√					√				
LA	L	DOWNEY	1A1002	LAF3114	0	0.0	0.0	LAKEWOOD BLVD	FLORENCE AVE	TELEGRAPH RD	LAKEWOOD BOULEVARD PHASE 3 IMPROVEMENTS. WIDEN TO PROVIDE 3 LANES IN EACH DIRECTION & 50' CURB RETURNS AT INTERSECTIONS, RECONS INFRASTRUCTURE TO EXTEND LIFE BY 50 YEARS, REPLACE LANDSCAPING, LIGHTING, & TRAFFIC SIGNALS.								√		

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LA	L	EL SEGUNDO	LA996330	LA996330	0	0.0	0.0	DOUGLAS ST	ROSECRANS AVENUE	ALASKA AVENUE	SBCOG - DOUGLAS ST. GAP CLOSURE/RAILROAD GRADE SEPARATION (UNDERPASS) FROM ROSECRANS TO ALASKA, 4 LANES. PPNO 2377. (HP # 46) (91 APP ACT, 101-516, 1990) INCLUDES INTERMODAL TRANSIT FACILITY/PUBLIC PARKING, CARPOOL/PUBLIC TRANSIT BUS BAYS ETC. AND PEDESTRIAN BRIDGE	DOUGLAS STREET IN EL SEGUNDO IS A FOUR LANE N-S SECONDARY ARTERIAL WITH A GAP IN THE STREET BETWEEN ROSECRANS AVENUE AND ALASKA AVENUE. THE CITY IS NOW CONSTRUCTING AN UNDERPASS UNDER THE RAILROAD AND THE STATION TO CONNECT THE ABOVE DESCRIBED DEAD ENDS. THE NEW ROADWAY WILL BE 4 LANES WIDE AND APPROXIMATELY 1000 FEET IN LENGTH. THE PROJECT INCLUDES CONSTRUCTION OF AN INTERMODAL TRANSIT FACILITY TO PROVIDE FOR PUBLIC PARKING FOR THE STATION (NONE EXISTS NOW) AND CAR POOL/PUBLIC TRANSIT BUS BAYS ETC. THE STATION WILL BE PROVIDED WITH A PEDESTRIAN BRIDGE	√	√				√				
LA	L	EL SEGUNDO	LA0C8079	LA0C8079	0	0.0	0.0	NASH ST	AT DOUGLAS STREET		NASH ST/DOUGLAS ST ONE-WAY TO TWO-WAY CONVERSION. CONVERT ONE-WAY COUPLET SYSTEM TO A TWO-WAY STREET.	CONVERT ONE-WAY COUPLET SYSTEM TO A TWO-WAY STREET	√	√		√						
LA	L	EL SEGUNDO	LA0G320	LA0G320	0	0.0	0.0	PARK PLACE EXTENSION	NASH	ALLIED WAY	Completion of Park Place Extension between Nash and Allied Way	A new four-lane roadway (approximately 56' wide). The total length of the project is estimated at 1,400 feet. Will provide an additional east-west connection.It will connect the existing segments of Park Place with a Four-lane roadway (2 lane each direction) via an underpass beneath two spur railroad tracks		√					√			
LA	L	GLENDALE	LA0G406	LA0G406	0	0.0	0.0	FAIRMONT AT SAN FERNANDO ROAD			PENDING INFO TO DETERMINE IF A MODELED PROJECT Fairmont Ave. Park-N-Ride facilty.	Park-n-Ride						√				
LA	L	GLENDALE	LA0G407	LA0G407	0	0.0	0.0	MONTEREY ROAD	COLORADO DRIVE	GLENOAKS BLVD	Monterey Rd. Extension to Glenoaks Blvd. over Verdugo Wash.	2 lanes in each direction		√					√			
LA	L	GLENDALE	LAF1136	LAF1136	0	0.0	0.0	GRANDVIEW AVE	AIR WAY	SAN FERNANDO RD	WIDEN ADD 1 EASTBOUND LANE BETWEEN AIR WAY AND SAN FERNANDO ROAD			√				√				
LA	L	HAWTHORNE	LA000720	LA000720	0	0.0	0.0	AVIATION BL	333RD STREET	MARINE AVENUE	ROSECRANS/AVIATION INTERSECTION (AVIATION WIDEN TO 3 LANES IN EACH DIR) RAILROAD BRIDGE WIDENING (C-I:44419) SAFETEA-LU # 3799 AND # 563	WIDEN TO 3 LANES IN EACH DIRECTION	√	√			√					
LA	L	INDUSTRY	LA0G350	LA0G350	0	0.0	0.0	VALLEY BLVD	AZUSA WAY	FAIRWAY DRIVE	ADDING 1 EASTBOUND LANE								√			
LA	L	INDUSTRY	LA0D450	LA0D450	60	24.5	30.4	GRAND AVE	SR-57 / SR-60		RECONSTRUCT SR 60/GRAND AV INTERCHANGE - WIDEN GRAND AV: SB ADD 1THRU LN (2 EXSTNG); NB ADD 1 THRU LN (3 EXSTNG), REPLACE GRAND AV OC, ADD EB LOOP ON-RAMP, ADD TWO BYPASS RAMP CONNECTORS, ADD AUX LNS EB AND WB FROM EAST TO WEST JUNCTION OF THE CONFLUENCE	CONSTRUCTING AN AUXILIARY LANE FROM SOUTHBOUND SR57 TO THE GRAND AVENUE OFF-RAMP. (EAST OF GRAND AVENUE)	√							√		
LA	L	INDUSTRY	LA0D442	LA0D442	0	0.0	0.0	PECK ROAD	I-605		RETROFITING THE EXISTING TWO-LANE WIDE PECK ROAD BRIDGE OVER THE SAN GABRIEL RIVER FWY (ROUTE 605) & WIDEN IT TO ACCOMODATE 4 LANES (2 EACH DIRECTION) TO ELIMINATE BOTTLENECK	WIDEN EXISTING TWO-LANE TO ACCOMODATE 4 LANES (2 EACH DIRECTION) TO ELIMINATE BOTTLENECK	√	√						√		
LA	L	INDUSTRY	LA0D441	LA0D441	0	0.0	0.0	VALLEY BL	605 FREEWAY		RECONFIGURATION OF VALLEY BLVD ON-AND-OFF-RAMPS @ I-605. WB VALLEY TO NB 605 FROM 1 TO 2 LNS; WB VALLEY TO SB 605 FROM 1 TO 2 LNS; EB VALLEY TO NB 605 FROM 1 TO 2 LNS; EB VALLEY TO SB 605 FROM 1 TO 2 LNS	WB VALLEY TO NB 605 -INCREASE 1 LANE, (FROM 1 EXISTING LANE TO 2 LANES) WB VALLEY TO SB 605-INCREASE 1 LANE (FROM 1 EXISTING LANE TO 2 LANES) EB VALLEY TO NB 605-INCREASE 1 LANE (FROM 1 EXISTING LANE TO 2 LANES) EB VALLEY TO SB 605-INCREASE 1 LANE (FROM 1 EXISTING LANE TO 2 LANES)	√	√						√		
LA	L	INGLEWOOD	LA000170	LA000170	0	0.0	0.0	ARBOR VITAE ST	LA BREA	ROUTE 405	ARBOR VITAE STREET FROM LA BREA TO ROUTE 405 PHASE II WIDENING FROM 2 TO 4 LANES WITH A LEFT TURN LANE.□	WIDEN FROM 2 TO 4 LNAES	√	√	√							

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LA	L	INGLEWOOD	LAE2024	LAE2024	0	0.0	0.0	LA BREA AV / HILLCREST BL			REALIGNMENT LA BREA AV TO REDUCE CONGESTION: IMPROVEMENTS AT INTERSECTION WITH HILLCREST BLVD (6-LEG TO 4-LEG/SIGNALIZED) & WITH TAMARACK AV (ADD SIGNAL)- NO CAPACITY INCREASE. CLOSE MARKET STREET AT LA BREA; LA BREA WILL BECOME 3 LNS EACH DIR BETWEEN MARKET AND HILLCREAST.	REALIGNMENT OF A REGIONAL ARTERIAL SURFACE STREET(LA BREA AVENUE)-DOES NOT INVOLVE FREEWAY OR FREEWAY RAMPS— IN INGLEWOOD, LA BREA AVENUE DOES SORT OF A DOGLEG BEND AT THE COMPLICATED SIX-LEGGED INTERSECTION OF LA BREA AVENUE, LA BREA DRIVE, SPRUCE AVENUE AND MARKET STREET [THOS BROS MAP P. 703, GRID C-3]. SOUTH OF THIS DOGLEG, LA BREA AVENUE HAS 6 THROUGH-LANES (3 PER DIRECTION)--A CAPACITY THAT EXTENDS DOWN LA BREA (AND DOWN ITS REINCARNATION AS HAWTHORNE BOULEVARD) ALL THE WAY INTO THE SOUTH BAY. CURRENTLY, THE THREE NORTHBOUND LANES, AS THEY APPROACH THIS 6-LEGGED INTERSECTION, DO THE FOLLOWING: NO. 1 LANE (CLOSEST TO MEDIAN) BECOMES A LEFT-ONLY LANE, NO. 2 LANE SPLITS INTO TWO LANES AND BECOMES A LEFT-ONLY LAND AND A THROUGH-LANE, AND THE NO. 3 LANE IS A THROUGH-LANE (BOTH THROUGH-LANES CONTINUE DUE NORTH ONTO MARKET STREET). ADDITIONALLY, FROM THE NO. 3 LANE, MOTORISTS CAN TURN RIGHT ONTO SPRUCE AVENUE OR LA BREA DRIVE. CURRENTLY, THE TWO LEFT-TURNING LANES CARRY THE LA BREA AVENUE ARTERIAL "THROUGH" TRAFFIC ONTO THE NORTHERLY CONTINUATION OF LA BREA AVENUE (WHICH IS CURRENTLY	√	√				√				
LA	L	LOS ANGELES COUNTY	LA0F003	LA0F003	0	0.0	0.0	LOS ANGELES ST	OVER BIG DALTON WASH		LOS ANGELES STREET, OVER BIG DALTON WASH, 0.5 MI S IRWINDALE AVE. WIDEN 2-LANE BRIDGE TO 4-LANE BRIDGE, ADD SHOULDERS, UPGRADE BRIDGE RAILING (# 53C0676)	WIDEN 2-LANE BRIDGE TO 4-LANE BRIDGE, ADD SHOULDERS, UPGRADE BRIDGE RAILING	√							√		
LA	L	LANCASTER	LA0D445	LA0D445	0	0.0	0.0	10TH ST WEST	AVENUE L	AVENUE M	10TH STREET WEST CAPACITY IMPROVEMENTS FROM AVE L TO AVE M. CAPACITY IMPROVEMENTS ON 10TH STREET WEST BY WIDENING EXISTING ROADWAY TO ROW EXTENTS, CLOSING ANY MIXED FLOW LANE GAPS, PROVIDING CONTINUOUS PEDESTRIAN WALKS, & BUS TURNOUTS.		√	√					√			
LA	L	LANCASTER	LA9708287	LA9708287	0	0.0	0.0	30TH ST WEST	AVE I	AVE G-4	30TH ST WEST FROM AVE I TO AVE G-4 WIDEN FROM 2 TO 4 LANES (1.75 MI)	WIDEN FROM 2 TO 4 LANES	√	√	√							
LA	L	LANCASTER	1A1011	LA0G166	0	0.0	0.0	30TH ST WEST	AVE M	AVE L	WIDENING OF 30TH ST WEST FROM AVENUE M TO AVENUE L (APPROX. 1 MILE) FROM 2 VEHICULAR TRAVEL LANES TO 4 LANES. 8 FOOT CLASS II BIKE LANES WILL BE STRIPED ON BOTH SIDES OF THE STREET.							√				
LA	L	LANCASTER	LA9708289	LA9708289	0	0.0	0.0	AVE G	ROUTE 14	25TH STREET WEST	AVE G, FROM RT 14 TO 25TH ST WEST WIDEN FROM 2 TO 6 LANES (0.2 MILES) (TOTAL 6 LANES BOTH DIR). INCLUDES INTERCHANGE IMPROVEMENTS.	WIDEN FROM 2 TO 6 LANES	√	√						√		
LA	L	LANCASTER	LA9910005	LA9910005	0	0.0	0.0	AVE G	ST-14	50TH STREET WEST	AVENUE G FROM SR-14 TO 50TH STREET WEST - WIDEN FROM 2 TO 6 LANES (3 MILES).	WIDEN FROM 2 TO 6 LANES	√	√	√							
LA	L	LANCASTER	LA0D448	LA0D448	0	0.0	0.0	AVE J / 20TH ST WEST / 20TH EAST	36TH LANCASTER J-4	32ND WEST NEWGROVE ST J-8	MAJOR ARTERIAL GAP CLOSURES. AVE J FROM 32ND ST TO 36TH ST W - FROM 2 LNS EB & 1 LN WB TO 3 LNS EB&WB; 20TH ST-W BTWN LANCASTER & NEIGHGROVE FROM 2 TO 3 LNS EB&WB; 20TH ST-E FROM AVE J4 TO J8 - FROM 1 LN SB & 3 LNS NB TO 3 LNS SB&NB	AVE J ADD 2 W/B LANES FROM 32ND ST TO 36TH ST(FROM 2 LANES EB AND 1 LANE WB TO TOTALTO 3 LANES EB AND TO 3 LANES WB)-W; 1 S/B LANE FROM 36TH ST TO 35TH ST-WEST. 20TH ST-W ADD LANE BOTH DIRECTIONS BTW LANCASTER & NEIGHGROVE((FROM 2 LANES EB AND 2 LANE WB TO TOTAL OF 3 LANES EB AND TO 3 LANES WB)-. 20TH ST-EAST ADD 2 S/B LANES FROM AVE J4 TO J8. (FROM 1 LANES SB AND 3 LANES NB TO TOTAL OF S LANES SB AND TO 3 LANES NB)	√	√						√		
LA	L	LANCASTER	LA0D336	LA0D336	0	0.0	0.0	AVE K	SR-14		SR14/AVENUE K INTERCHANGE IMPROVEMENTS. WIDEN NORTHBOUND OFFRAMP FROM 3 TO 4 LANES AT AVE K/15TH ST W	WIDEN NORTHBOUND OFFRAMP AND 15TH STREET WEST WIDEN N/B OFFRAMP FROM 3 TO 4 LANES AT AVE K/15TH ST-W. ADDING 1 LANE	√	√							√	
LA	L	LANCASTER	LA0D446	LA0D446	0	0.0	0.0	AVE K	60TH STREET WEST	SR14	AVENUE K GAP CLOSURE FROM 40TH STREET WEST TO 60TH STREET WEST. WIDEN GAPS TO ADD AN ADDITIONAL LANE IN EACH DIRECTION (4 LANES TOTAL) WITHIN THE CITY JURISDICTION.		√	√					√			
LA	L	LANCASTER	1A1003	LAF3129	0	0.0	0.0	AVE L	15TH STREET WEST	30TH STREET WEST	AVENUE L WIDENING: 15TH TO 30TH STREET WEST. CONSTRUCT CAPACITY IMPROVEMENTS ALONG AVENUE L BY WIDENING EXISTING ROADWAY TO AVAILABLE ROW EXTENTS & CLOSING ANY MIXED FLOW LANE GAPS, & PROVIDE IMPROVED CIRCULATION TO SR-14.	Current conditions are 1 to 3 lanes in each direction as it varies depending on section of the scope (in some places it is 1, some places 2 and some place 3 lanes). The final condition will be 6 lanes total, 3 lanes in each direction. This is a bottleneck improvement.		√					√			

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LA	L	LANCASTER	LA0D447	LA0D447	0	0.0	0.0	AVE L	60th STREET WEST	30th West	AVENUE L GAP CLOSURE FROM 60TH STREET WEST TO 30TH WEST, ADDING AN ADDITIONAL LANE IN EACH DIRECTION, INCLUDING A MEDIAN (WITHIN CITY JURISDICTION).	WIDEN GAPS FROM 1 TO 2 LANES TO 3 LANES GOING EAST - WIDENING FROM 1 EXISTING LANE TO 3 LANES ON AVE. L FROM 60TH W TO 42ND W AND WIDENING FROM 2 EXISTING LANES TO 3 LANES ON AVE L FROM 42ND W TO 15TH W F; GOING WEST - WIDENING FROM 2 EXISTING LANES TO 3 LANES ON AVE. L FROM 15TH W TO 45TH W AND WIDENING FROM 1 EXISTING LANE TO 3 LANES ON AVE. L BETWEEN FROM 45TH W TO 60TH W	√	√					√			
LA	L	LANCASTER	LA0D449	LA0D449	0	0.0	0.0	AVE M	10TH STREET WEST	15TH STREET WEST	AVENUE M AND SR14 OVERCROSSING IMPROVEMENTS. WIDEN AVE M FROM 2 TO 7 LNS FROM 10TH ST W TO 15TH ST W: 600' FROM 15TH ST W TO SB SR-14 EXIT - ADD 2 EB LNS, 1 WB LN; 590' BTWN EAST SR-14 EXIT & 10TH ST W - ADD 2 LNS EACH DIR; 630' W/O 10TH ST W - ADD 2 WB LNS, 1 CENTER MEDIAN DIVIDER, AND/OR LEFT TURN SIGNAL, AND RESTRIPE EB LNS; 850' BTWN E & W SR-14 EXITS - ADD 1 LN EACH DIR & 1 CENTER MEDIAN DIVIDER AND/OR LEFT TURN SIGNAL	600' FROM 15TH STREET WEST TO SB SR-14 EXIT - ADD 2 EB LANES, 1 WB LANE, 590' BETWEEN EAST SR-14 EXIT AND WEST TO 10TH STREET WEST - ADD 2 LANES IN BOTH DIRECTIONS, AND 630' WEST OF 10 THE STREET WEST - ADD 2 WB LANES ONE CENTER MEDIAN DIVIDER AND/OR LEFT TURN SIGNAL, AND RESTRIPE EB LANES; 850' BETWEEN EAST AND WEST SR-14 EXITS - ADD 1 LANE IN BOTH DIRECTIONS AND ONE CENTER MEDIAN DIVIDER AND/OR LEFT TURN SIGNAL	√	√						√		
LA	L	LANCASTER	LA0G167	LA0G167	0	0.0	0.0	20TH ST WEST	AVENUE J	LANCASTER BLVD	WIDENING OF NORTHBOUND 20TH STREET WEST FROM 2 LANES TO 3 LANES ON AVENUE J TO LANCASTER BLVD							√				
LA	L	LAWNDALE	LAE2906	LAE2906	0	0.0	0.0	INGLEWOOD AVE / MARINE AVE			INGLEWOOD AV/MARINE AV INTRSCTN IMPRVEMNT-PURCHASE ROW FOR WIDENING; ADD 1 THRU NB LN INGLEWOOD AV (2 LN EXSTNG) & 1 THRU WB LN MARINE AV (1 LN EXSTNG); ADD LIGHTNG, SIGNLS,SIDEWLK	ADD 1 THRU NB LN INGLEWOOD AV (2 LN EXSTNG) &1 THRU WB LN MARINE AV (1 LN EXSTNG); ADD LIGHTNG, SIGNLS,SIDEWLK	√	√					√			
LA	L	LONG BEACH	LA57000	LA57000	0	0.0	0.0	OCEAN BL / TERMINAL ISLAND FREEWAY INTERCHANGE	NAVY MOLE OVERHEAD	0.9 KM EAST OF THE TERMINAL ISLAND FREEWAY	OCEAN BLVD/TERMINAL ISLAND FREEWAY INTERCHANGE (PORT OF LONG BEACH - PADP #30) (T21-#742) SPLIT DIAMOND INTERCHANGE THAT ELEVATES OCEAN BLVD; 2 LNS EA DIR; RAMPS 2 LNS EACH DIR	SPLIT DIAMOND INTERCHANGE THAT ELEVATES OCEAN BLVD IN LONG BEACH. 2 LANES IN EA. DIRECTION. RAMPS 2 LANES IN EACH DIRECTION.	√	√	√							
LA	L	LONG BEACH	LA000512	LA000512	0	0.0	0.0	OCEAN BL OVER ENTRANCE CHANNEL	OCEAN BLVD. OVER ENTRANCE CHANNEL	OCEAN BLVD. OVER ENTRANCE CHANNEL	OCEAN BLVD. OVER ENTRANCE CHANNEL, UP RR, 1.0 MI E STATE ROUTE 47. REPLACE EXISTING 5 LANE GERALD DESMOND BRIDGE WITH NEW 6 LANE BRIDGE (3 EACH DIR)(CFP #LAF3126)	REPLACE EXISTING 5 LANE GERALD DESMOND BRIDGE WITH NEW 6 LANE BRIDGE 3 LANES IN EACH DIRECTION.-	√							√		
LA	L	LONG BEACH	LA960150	LA960150	0	0.0	0.0	SPRING ST	LONG BEACH BLVD	300' EAST OF ATLANTIC AVE	SPRING ST PH. II - LONG BEACH BLVD TO 300' E/O ATLANTIC AVE WIDEN ROADWAY WIDEN 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
LA	L	LOS ANGELES COUNTY	LA002033	LA002033	0	0.0	0.0	ALAMEDA ST	DEL AMO	ROUTE 91	ALAMEDA STREET DEL AMO TO RTE 91 (NO SYNCHRONIZATION; PLUS T21-834) WIDEN FROM 4 TO 6 LANES. CONSTRUCT GRADE SEPERATION, INSTALL TS.	WIDEN FROM 4 TO 6 LANES	√	√	√							
LA	L	LOS ANGELES COUNTY	LA0D460	LA0D460	0	0.0	0.0	AVE O	30TH ST WEST	10TH ST WEST	AVE O FROM 30TH ST W TO 10TH ST W-RECONSTRUCTION & WIDENING, INCLUDING EXISTING BRIDGE; ADD 12' RT ONLY POCKETS AT INTERSECTION AVE O & 20TH ST W & 12' TWO-WAY LTL ONLY. REALIGN STORM DAMAGED ROAD AND BRIDGE - WIDEN ROADWAY AND BRIDGE FROM 1 LN EACH DIR TO 2 LNS EACH DIR. TOTAL LENGTH IS 1.91 MILES.	REALIGN STORM DAMAGED ROAD AND BRIDGE - PROPOSE TO WIDEN THE ROADWAY AND THE BRIDGE FROM 1 LANE EACH DIRECTION TO 2 LANES EACH DIRECTION. TOTAL LENGTH IS 1.91 MILES.	√						√			
LA	L	LOS ANGELES COUNTY	LA000373	LA000373	0	0.0	0.0	AVIATION BL	MANHATTAN BEACH BLVD	ARBOR VITAE	AVIATION BLVD FROM MANHATTAN BEACH BLVD TO ARBOR VITAE WIDEN FROM 4 TO 6 LANES (ISTEA, 102-240, 1991)	WIDEN FROM 4 TO 6 LANES	√	√				√				
LA	L	LOS ANGELES COUNTY	LA960018	LA960018	0	0.0	0.0	BEVERLY BL	MONTEBELLO BLVD	WEST OF REA DR.	BEVERLY BOULEVARD MONTEBELLO BLVD TO W/O REA DRIVE RECONSTRUCT & WIDEN WIDEN FROM 4 TO 6 LANES	WIDEN FROM 4 TO 6 LANES	√	√					√			
LA	L	LOS ANGELES COUNTY	LA960024	LA960024	0	0.0	0.0	BEVERLY BL	OVER RIO HONDO CHANNEL BRIDGE		BEVERLY BOULEVARD OVER RIO HONDO CHANNEL BRIDGE REPLACEMENT WIDEN FROM 4 TO 6 LANES (53C0086) (FY 2004/05 $4,088 AGENCY FUNDS = AC(HBRR) FUNDS)	WIDEN FROM 4 TO 6 LANES	√	√	√							
LA	L	LOS ANGELES COUNTY	LA9711031	LA9711031	0	0.0	0.0	CASTAIC CUTOFF	LAKE HUGHES RD	SAN FRANCISQUITO CANYON RD	CASTAIC CUTOFF FROM LAKE HUGHES RD TO SAN FRANCISQUITO CANYON RD CONTRUCT NEW ROAD 4 12-FOOT LANES AND 10-FOOT SHOULDERS EACH DIR	CONTRUCT NEW ROAD (4 LANES 2 EACH DIRECTION) 12-FOOT LANES AND 10-FOOT SHOULDERS	√	√					√			
LA	L	LOS ANGELES COUNTY	LA0D465	LA0D465	0	0.0	0.0	COLIMA RD	EASTBOUND HACIENDA BLVD	FULLERTON ROAD	COLIMA RD- HALIBURTON RD/ CITY OF DIAMOND BAR CB ROAD WIDENING: RESTRIPE FOR 3RD THRU LANE ON COLIMA EB FROM HACIENDA TO FULLERTON & ON COLIMA WB FROM FULLERTON TO CAMINO DEL SUR	RESTRIPE TO ADD 1 THRU LANE ON COLIMA RD EB FROM HACIENDA BLVD TO FULLERTON RD, RESULTING IN A TOTAL OF 3 THRU LANES IN ADDITION TO EXISTING TURN LANES (AS 1 LEFT TURN LANE AT APPROACHING HALIBURTON RD). RESTRIPE TO ADD 1 THRU LANE	√	√					√			
LA	L	LOS ANGELES COUNTY	LAE1920	LAE1920	0	0.0	0.0	DEL AMO BL	NORMANDIE AVE.	NEW HAMPSHIRE	RECONSTRUCT AND WIDEN DEL AMO BLVD. TO FOUR LANES (2 EACH DIR) BETWEEN NORMANDIE AVE. AND NEW HAMPSHIRE	DD FOUR LANES (TWO LANES EACH DIRECTION 10-12') EACH LANE . EXISTING IS 1 LANE EACH DIRECTION. PROPOSE TO WIDEN TO 2 LANES EACH DIRECTION.	√	√			√					

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LA	L	LOS ANGELES COUNTY	LAE2617	LAE2617	0	0.0	0.0	GALE AVE	FULLERTON ROAD	NOGALES ST	GALE AVENUE --FROM FULLERTON ROAD TO NOGALES ST, WIDEN FROM 4 TO 6 LANES AND NOGALES ST INTERSECTION WIDENING AT GALE AVE. TO ADD NB LEFT TURN LANE.	WIDEN GALE AV FROM 4 TO 6 LANES BTW FULLERTON RD AND NOGALES ST. ALSO, WIDEN NOGALES ST AT THE INTERSECTION WITH GALE AV TO ACCOMMODATE A NORTHBOUND LEFT-TURN ONLY LANE	√	√				√				
LA	L	LOS ANGELES COUNTY	LA0D461	LA0D461	0	0.0	0.0	OLD RD	HILLCREST PARKWAY	LAKE HUGHES RD	RECONSTRUCTION THE OLD ROAD FROM HILLCREST PARKWAY TO LAKE HUGHES RD & WIDENING FROM 40' TO 68', PROVIDING 2 VEH. TRAVEL LANES EACH DIR AND A 5' CLASS II BIKELANE IN EACH DIR & STRIPPED MEDIAN	FROM 2 TOTAL LANES TO 4 TOTAL LANES (ADDING ONE LANE EACH WAY)	√					√				
LA	L	LOS ANGELES COUNTY	1A1005		0	0.0	0.0	OLD RD	MAGIC MOUTAIN PARKWAY	TURNBERRY LN	THE OLD ROAD FROM MAGIC MOUNTAIN PARKWAY TO TURNBERRY LANE. WIDEN THE OLD ROAD FROM NORTH OF MAGIC MOUNTAIN PKWY TO TURNBERRY LN & HENRY MAYO DR TO 1200 FEET WEST OF THE OLD ROAD. THE PROPOSED PROJECT IS LOCATED ON THE OLD ROAD FROM APPROXIMATELY 700 FEET NORTH OF MAGIC MOUNTAIN PARKWAY TO TURNBERRY LANE, HENRY MAYO DRIVE FROM THE OLD ROAD TO THE STATE ROUTE 126 HOOK RAMPS, AND RYE CANYON ROAD BETWEEN THE OLD ROAD AND AVENUE STANFORD.	4 (2 in each direction) before project 6 (3 in each direction) after.							√			
LA	L	LOS ANGELES COUNTY	LA0G105	LA0G105	0	0.0	0.0	OLD RD	1/2 MILE N. MAGIC MOUNTAIN PARKWAY		Bridge No. 53C0328, The Old Road, Over SPTCO(ABND), 1/2 mi N. Magic MNT PKWY. Replace existing 4 lanes with new 6 lane bridge.	WIDEN FROM 2 TO 3 LANES IN EACH DIRECTION		√						√		
LA	L	LOS ANGELES COUNTY	LA0F010	LA0F010	0	0.0	0.0	OLD RD	N MAGIC MOUTAIN PARKWAY		OLD ROAD, OVER SANTA CLARA RIVER, 1/4 MI N MAGIC MTN PKWY. REPLACE 4 LANE BRIDGE W/ 6 LANE BRIDGE (HBRRP PAY FOR 4 LANE, & NEWHALL LAND &FARMING PAYS FOR 2 ADDIT. LANES) (# 53C0327	4 LANE BRIDGE TO 6 LANE BRIDGE	√							√		
LA	L	LOS ANGELES COUNTY	LA960021	LA960021	0	0.0	0.0	PECK RD	OVER 605 FREEWAY		PECK ROAD OVER 605 FWY WIDEN BRIDGE WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√						√		
LA	L	LOS ANGELES COUNTY	LA960022	LA960022	0	0.0	0.0	SAN FRANCISQUITO CANYON RD	NORTH OF POWERHOUSE #2	TO 1.8 MILES	SAN FRANCISQUITO CANYON ROAD N/O POWERHOUSE #2 TO 1.8 MILES CONSTRUCT NEW TWO LANE ROAD	CONSTRUCT NEW 2 LANE ROAD	√	√	√							
LA	L	LOS ANGELES COUNTY	LA0D260	LA0D260	0	0.0	0.0	SR-90 CONNECTOR RD	SR 90	ADMIRALTY WAY	SR 90 CONNECTOR ROAD TO ADMIRALTY WAY. THIS PROJECT WILL IMPROVE THE SR-90/SR-1 INTERSECTION INCLUDING THE ADDITION OF A LANE IN EACH DIRECTION AND CONSTRUCTION OF A DIRECT ROAD BETWEEN ADMIRALTY WAY AND SR-90		√	√					√			
LA	L	LOS ANGELES COUNTY MTA	LA000320	LA000320	0	0.0	0.0	ATLANTIC BL	OLYMPIC	WHITTIER	ATLANTIC BLVD FROM OLYMPIC TO WHITTIER WIDEN FROM 4 TO 6 LANES WITH LEFT TURN LANES	WIDEN FROM 4 TO 6 LANES	√	√	√							
LA	L	LOS ANGELES REDEVELOPMENT AGENCY	LA0C53	LA0C53	0	0.0	0.0	HAWTHORNE AVE	HIGHLAND AVENUE	NORTH ORANGE DRIVE	HOLLYWOOD INTERMODAL TRANSPORTATION AND PUBLIC PARKING CENTER ON HAWTHORNE AVE. BETWEEN HIGHLAND AVENUE AND NORTH ORANGE DRIVE. 500 SPACES	HOLLYWOOD INTERMODAL TRANSPORTATION AND PUBLIC PARKING CENTER - P-N-R 500 SPACES	√	√				√				
LA	L	LOS ANGELES, CITY OF	LAE2515	LAE2515	0	0.0	0.0	BUNDY DR	WILSHIRE	SANTA MONICA BLVD	WIDEN BUNDY DR. BETWEEN WILSHIRE AND SANTA MONICA BLVD - WIDEN FROM 2 TO 4 LANES	FROM 2 TOTAL LANES TO 4 TOTAL LANES (ADDING ONE LANE EACH WAY)	√	√					√			
LA	L	LOS ANGELES, CITY OF	LA0C8049	LA0C8049	0	0.0	0.0	ANAHEIM ST	FARRAGUT AVE	DOMINGUES CHANNEL	ANAHEIM ST WIDENING-FARRAGUT AVE TO DOMINGUEZ CHANNEL. PROJECT WILL WIDEN THE EXISTING ROADWAY FROM 4 TO 6 LANES AND UPGRADE THE HIGHWAY TO MAJOR HIGHWAY STANDARDS. PPNO 3100.	WIDEN FROM 4 TO 6 LANES	√	√			√					
LA	L	LOS ANGELES, CITY OF	LA996408	LA996408	0	0.0	0.0	ARBOR VITAE ST	LA CIENEGA BLVD	AIRPORT BLVD	WIDEN ARBOR VITAE ST TO PROVIDE FOR TWO LANES IN EACH DIRECTION AND TWO-LEFT TRN LNE FROM LA CIENEGA BLVD TO AIRPORT BLVD (FROM 2 TO 4 LANES)(PPNO 2366)	WIDEN FROM 2 TO 4 LNAES	√	√		√						
LA	L	LOS ANGELES, CITY OF	LA0C8046	LA0C8046	0	0.0	0.0	BURBANK BL	LANKERSHIM BLVD	CLEON AVENUE	BURBANK BLVD WIDENING-LANKERSHIM BLVD TO CLEON AVE. FROM VARYING ROADWAY WIDTH TO FULL MAJOR HIGHWAY STANDARDS. FROM 1 LN TO 2 LNS IN EACH DIRECTION. PPNO 3097.	WIDEN FROM 1 TO 2 LANES IN EACH DIRECTION	√	√					√			
LA	L	LOS ANGELES, CITY OF	LA996413	LA996413	0	0.0	0.0	CENTINELA AVE	WASHINGTON BLVD	SHORT AVENUE	CENTINELA AVE. -WASHINGTON BLVD. TO SHORT AVE. - WIDN CENTINELA AVE. FROM WASHINGTON BLVD. TO SHORT AVE. FROM 2 S/B & 1 N/B LANE TO 2 S/B, 2 N/B & 2 WIDE LEFT TURN LNES.PPNO 2374.	WIDEN 2 SOUTHBOUND AND 1 NORTBOUND LANE TO 2 LANES IN EACH DIRECTION	√	√	√							
LA	L	LOS ANGELES, CITY OF	LA0F004	LA0F004	0	0.0	0.0	DELL AVE	OVER CARROLL CANAL, 0.2 KM S OF VENICE BLVD		DELL AVE, OVER CARROLL CANAL, 0.2 KM S OF VENICE BLVD. REHABILITATE 1 LANE BRIDGE AND WIDEN TO 2 LANE BRIDGE, ADD SIDEWALKS, UPGRADE BRIDGE RAILINGS. (# 53C1688)	EHABILITATE 1 LANE BRIDGE AND WIDEN TO 2 LANE BRIDGE, ADD SIDEWALKS, UPGRADE BRIDGE RAILINGS	√							√		

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LA	L	LOS ANGELES, CITY OF	LA0F005	LA0F005	0	0.0	0.0	DELL AVE	OVER LINNIE CANAL, 0.25 KM S OF VENICE BLVD		DELL AVENUE, OVER LINNIE CANAL, 0.25 KM S OF VENICE BLVD. REHABILITATE 1 LANE BRIDGE & WIDEN TO 2 LANE BRIDGE, ADD SIDEWALKS, UPGRADE BRIDGE RAILINGS (# 53C1689)	REHABILITATE 1 LANE BRIDGE & WIDEN TO 2 LANE BRIDGE, ADD SIDEWALKS, UPGRADE BRIDGE RAILINGS	√							√		
LA	L	LOS ANGELES, CITY OF	LA0F006	LA0F006	0	0.0	0.0	DELL AVE	OVER SHERMAN CANAL, 0.25 MI S VENICE BLVD		DELL AVENUE, OVER SHERMAN CANAL, 0.25 MI S VENICE BLVD. REHABILITATE 1 LANE BRIDGE & WIDEN TO 2 LANE BRIDGE ADD SIDEWALKS, UPGRADE BRIDGE RAILINGS. (# 53C1691)	EHABILITATE 1 LANE BRIDGE & WIDEN TO 2 LANE BRIDGE ADD SIDEWALKS, UPGRADE BRIDGE RAILINGS	√							√		
LA	L	LOS ANGELES, CITY OF	1A1004	LAF3171	0	0.0	0.0	DE SOTO AVE	RONALD REAGAN FWY	DEVONSHIRE ST	DE SOTO AVE WIDENING: RONALD REAGAN FWY TO DEVONSHIRE ST. WIDEN DE SOTO AVE FROM SR-118 TO DEVONSHIRE ST TO PROVIDE 3 LANES IN EACH DIRECTION & UNIFORM ROADWAY WIDTH. EXISTING ASPHALT BERMS TO BE REPLACED WITH CURB, GUTTER, & 10' SIDEWALK.									√		
LA	L	LOS ANGELES, CITY OF	LAE2299	LAE2299	0	0.0	0.0	HASKELL AVE	CHASE ST	ROSCOE BLVD	HASKELL AVE FROM CHASE ST. TO ROSCOE BLVD. IMPROVEMENTS - WIDEN FROM 2 TO 4 LANES	FROM 2 TO 4 LANES	√	√				√				
LA	L	LOS ANGELES, CITY OF	LA0C8038	LA0C8038	0	0.0	0.0	LAUREL CANYON BL	SHELDON ST	WENTWORTH ST	LAUREL CANYON BLVD BRDGE OVER TUJUNGA WASH WIDENING (BRIDGE #53C-1233). REHABILITATE 4-LANE BRIDGE AND WIDEN TO ADD SHOULDERS, UPGRADE BRIDGE RAILINGS. PPNO 3094 3379 AB 3090	BRIDGE WIDENING FROM 4 TO 6L LANES	√	√				√				
LA	L	LOS ANGELES, CITY OF	LAF1206	LAF1206	0	0.0	0.0	LINCOLN BLVD			Lincoln Bl Widening at Venice Bl. Widen both sides of Lincoln Bl north and south of Venice Bl to provide an additional lane in each direction during weekday peak commute hours	Lincoln currently 2NB/2SB, after project will be 3NB/3SB. Distance of the project is .25 miles. Widen Lincoln Blvd from Coeur Alene Ave to Victoria Avenue. The removal of parking lanes on each side and 8' of ROW from a sidewalk reduction (4' on each side)will allow for the addition of a new travel lane in each direction	√						√			
LA	L	LOS ANGELES, CITY OF		LAF3148	0	0.0	0.0	NORTH MAIN STREET			North Main St Grade Separation. Construct a new grade separation over UPRR and Metrolink & LA River while preserving the historic Main St Bridge. This is #10 in LA County on the PUC grade separation list.. Project site is located approximately 1 mile northeast of downtown Los Angeles, located on Main Street over the Los Angeles River between Wilhart and Lamar.	• Bounded by Wilhart and Lamar • 2 Lanes in each direction before and after								√		
LA	L	LOS ANGELES, CITY OF	LA0C8087	LA0C8087	0	0.0	0.0	MAGNOLIA BL	CAHUENGA BLVD	VINELAND AVENUE	MAGNOLIA BLVD WIDENING-CAHUENGA BLVD TO VINELAND AVE. FROM THE EXISTING ROADWY STANDARD TO SECONDARY HWY STANDARD. FROM 1 LANE TO 2 LANES IN EACH DIRECTION. (PPNO 3110).	WIDEN FROM 1 TO 2 LANES IN EACH DIRECTION	√	√				√				
LA	L	LOS ANGELES, CITY OF	LA0C8055	LA0C8055	0	0.0	0.0	MOORPARK AVE	WOODMAN AVE	MURIETTA AVE	MOORPARK ST WIDENING - WOODMAN AVE TO MURIETTA AVE.- WIDEN EXISTING ROADWAY FROM VARYING WIDTH TO 70 FEET TO PROVIDE ON ADDTL TRAFFIC LANE IN EA DIR & UPGRADE HIGHWAY TO SECONDARY HWY STANDARDS. THIS PROJECT IMPROVES 2080 LF OF MOORPARK AVE. PPNO 3103.	WIDEN 1 LANE IN EACH DIRECTION	√	√				√				
LA	L	LOS ANGELES, CITY OF	LA0B7234	LA0B7234	0	0.0	0.0	OVERLAND BRIDGE	NATINAL BLVD/I-10 WESTBOUND RAMPS	NATINAL BLVD/NATIONAL PLACE	OVERLAND BRIDGE WIDENING OVER I-10 FREEWAY - WIDEN W SIDE OF OVERLAND AVE BRIDGE OVER THE I-10 FROM NATIONAL BLVD/I-10 WESTBOUND RAMPS TO NATIONAL BLVD/NATIONAL PLACE. PPNO 2863. FROM 3NB/2SB TO 4NB/3SB.	WIDEN W SIDE OF OVERLAND AVE BRIDGE OVER THE I-10; CURRENT NUMBER OF LANES IN EACH DIRECTION: 3NB, 2SB; NUMBER OF LANES IN EACH DIRECTION AFTER IMPROVEMENT: 4NB,3SB	√	√				√				
LA	L	LOS ANGELES, CITY OF	LA0C8063	LA0C8063	0	0.0	0.0	RIVERSIDE DR	BARCLAY ST	SAN FERNANDO RD	RIVERSIDE DR. VIADUCT REPLACEMENT. REPLACEMENT & UPGRADE OF THE EXISTING 2-LANE BRIDGE WITH 2 THROUGH LANES AT SAN FERNANDO ROAD WITH NEW ROUNDABOUT. BIKE LANE ADDED COMBINED WITH 53C-1932 - WILL RESULT IN INCR. CIRCULATION. PPNO 3105 (53C-0160)	WIDEN BRIDGE FROM 2 TO 4 LANES	√	√						√		
LA	L	LOS ANGELES, CITY OF	LA0C8064	LA0C8064	0	0.0	0.0	SAN FERNANDO MISSION BL	SEPULVEDA BLVD	I-5 FREEWAY	SAN FERNANDO MISSION BLVD WIDENING BET SEPULVEDA BLVD & I-5 FWY. FROM 1 LANE TO 2 LANES IN EACH DIRECTION.PPNO 3106.	WIDEN FROM 1 TO 2 LANES IN EACH DIRECTION	√	√				√				
LA	L	LOS ANGELES, CITY OF	LA0C8032	LA0C8032	0	0.0	0.0	SEPULVEDA BL	UNDER MULHOLLAND DRIVE		SEPULVEDA BL TUNNEL UNDR MULHOLLAND DR WIDENING. WIDEN TUNNEL STRUCTURE FRM 3 TO 4 LNS -MATCH RDWY APROACH, INC VERTICAL CLEARANCE & ADD BIKE LNS EACH DIRCTN-FEASIBILITY STUDY ONLY	WIDEN TUNNEL FROM 3 TO 4 LANES	√					√				
LA	L	LOS ANGELES, CITY OF	LA974313	LA974313	0	0.0	0.0	SEPULVEDA BL	I-105 WESTBOUND OFF RAMP		SEPULVEDA BLVD/I-105 WESTBOUND OFF RAMP WIDENING NORTHBOUND SEPULVEDA BLVD 1 TO 2 LANES ADD WESTBOUND EXIT LANE	WIDENING NORTHBOUND SEPULVEDA BLVD 1 TO 2 LANES ADD WESTBOUND EXIT LANE	√	√	√							
LA	L	LOS ANGELES, CITY OF	LA996390	LA996390	0	0.0	0.0	SEPULVEDA BL	CENTINELA AVE	LINCOLN BLVD	SEPULVEDA BLVD. FROM CENTINELA AVE. TO LINCOLN BLVD - WIDEN SEPUL BLVD BTWN LINCOLN AND CENTINELA TO PROVIDE BUS/CARPOOL PRIORITY LANE	WIDEN TO PROVIDE BUS/CARPOOL PRIORITY LANE	√	√		√						

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LA	L	LOS ANGELES, CITY OF	LA996425	LA996425	0	0.0	0.0	SEPULVEDA BL	MULHOLLAND TUNNEL	WILSHIRE BLVD	SEPULVEDA BLVD FROM MULHOLLAND TUNNEL TO WILSHIRE BLVD. REVERSIBLE LANE, BIKE LANE, AND INTERSECTION IMPROVEMENT	ADD A CENTER-REVERSIBLE LANE	√	√				√				
LA	L	LOS ANGELES, CITY OF	LA0C8054	LA0C8054	0	0.0	0.0	SKIRBALL CTR DR	I-405 FWY	MULHOLLNAD DRIVE OVERPASS	SKIRBALL CNTR DR WIDENG FRM I-405 FWY TO MULHOLLAND DR. OVERPASS, PRVIDE ADDN'L S/B LNE, RESTRIPE SKIRBALL CTR DR. FRM 1 S/B, 2 N/B LANES TO 2 LANES IN EACH DIRECTN. (PPNO 3132).	WIDEN - ADD 1 SOUTHBOUND LANE FOR A TOTAL OF 2 LANES IN EACH DIRECTION.	√	√			√					
LA	L	LOS ANGELES, CITY OF	LA0C8037	LA0C8037	0	0.0	0.0	SOTO ST	OVER MISSION ROAD & HUNTINGTON DRIVE	RADIUM DR	SOTO ST BRIDGE OVER MISSION RD & HUNTINGTON DR WILL DEMOLISH EXISTING BRIDGE AND REALIGN THE STREET TO INCREASE TRAFFIC FLOW ADDING A BIKE LANE. PPNO 3093 3380 (BRIDGE #53C0013). ADD SB LANE.	ADD SOUTHBOUND LANE	√	√					√			
LA	L	LOS ANGELES, CITY OF	LA0C8086	LA0C8086	0	0.0	0.0	SPRING ST	WILHARDT ST	BROADWAY	NORTH SPRING ST BRIDGE WIDENING & REHABILITATION. INCLUDES WIDENING THE STRUCTURE & THE WEST APPROACH FROM 4 TO 6 LANES, A BIKE LANE WILL BE ADDED IN EA DIR (53C0859).	BRIDGE WIDENING FROM 4 TO 6 LANES	√							√		
LA	L	LOS ANGELES, CITY OF	LA0C8031	LA0C8031	0	0.0	0.0	TAMPA AVE BRIDGE	VICTORY BLVD	VANOWEN ST	TAMPA AVE BRDGE WIDENING. WIDEN RIVER CROSSING FROM 4 LNS TO 6 LNS ON TAMPA AVE BRDGE, CONSTRUCT BIKE PATH. GRADE SEPARATION & ADD 2 LNS. PPNO 3090 3376 REP	WIDEN RIVER CROSSING FROM 4 TO 6 LANES	√	√				√				
LA	L	LOS ANGELES, CITY OF	LA996415	LA996415	0	0.0	0.0	UPPER 2ND ST	GRAND AVENUE	OLIVE STREET	UPPER 2ND ST- ENHANCE CIRCULATION W/IN THE BUNKER HILL AREA FROM GRAND AVE TO OLIVE ST (FROM 0 TO 2 LANE IN EACH DIRECTION -- 350 FT.). PPNO 2375.	FROM 0 TO 1 LANES IN EACH DIRECTION	√	√		√						
LA	L	LOS ANGELES, CITY OF	LA0C40	LA0C40	0	0.0	0.0	VALLEY BLVD / WEST MISSION ROAD	I-710 ALIGNMENT		VALLEY BLVD/WEST MISSION ROAD I-710 CONNECTOR: CONSTRUCT FRONTAGE RD IN I-710 ALIGNMENT FROM VALLEY BLVD & WEST MISSION RD IN THE EXIS.T STATE ROW & BUILD GRADE SEP, 2 LN EA DIR.	ADD FROMTAGE ROAD	√	√	√							
LA	L	LOS ANGELES, CITY OF	LA0C8042	LA0C8042	0	0.0	0.0	VANOWEN ST BRIDGE	MASON AVE	WINNETKA AVE	VANOWEN ST BRDGE WIDENING & REHAB. PRJCT WILL WIDEN EXISTING BRIDGE TO MATCH THE STREET IT WILL ALLOW INC TRAFFIC FLOW AND SAFETY. CONSTRUCT BIKE PATH UNDER. PPNO 3095 3378 AB 3090. FROM 2 TO 3 LNS EACH DIR	WIDEN FROM 2 TO 3 LANES IN EACH DIRECTION.	√	√				√				
LA	L	LOS ANGELES, CITY OF	LAF1163	LAF1163	0	0.0	0.0	NO. VENICE BLVD	DAVID AVE	CHARITON ST.	North Venice Bl Widening at La Cienega Bl. Widen the north side of Venice Bl from David Av to Chariton St to provide an additional full-time WB through lane at La Cienega Bl	Venice is currently 3EB/3WB lanes, after the project it will be 3EB/4WB lanes. Project distance is 0.25 miles. Project will widen the north side of Venice Blvd from David Avenue to Chariton street to provide an additional full time westbound through lane at La Cienega Blvd.The north side of Venice Blvd will be widened up to 6 feet and will be constructed within the existing right of way to provide a fourth through lane and maintain the existing bike lane.	√						√			
LA	L	LOS ANGELES, CITY OF	LAF1141	LAF1141	0	0.0	0.0	VICTORY BLVD	TOPANGA CYN BLVD	DE SOTO AVE	Victory Bl Widening from Topanga Cyn Bl to De Soto Av. Widen the south side of Victory Bl from Topanga Cyn Bl to De Soto Av to provide an additional EB travel lane								√			
LA	L	LOS ANGELES, CITY OF	LA962148	LA962148	0	0.0	0.0	WESTLAKE/ MACARTHUR PARK METRO RED LINE STATION			WESTLAKE COMMUNITY BASED INTERCEPT INTERMODAL FACILITY (95 CALL, CAT 2) [CALL #2446] INCLUDING 1100 SPACE PARKING	INTERMODAL FACILITY INCLUDING 1100 SPACE PARKING	√	√		√						
LA	L	LOS ANGELES, CITY OF	LA0C8084	LA0C8084	0	0.0	0.0	WINNETKA AVE			WINNETKA AVE BRDGE WIDENING & REHAB. PROJ. WILL WIDEN THE RIVER CROSSING FROM 4 TO 6 LANES & CONSTRUCT BIKE UNDERPASS. PPNO 3108 3377 AB 3090 REP (53C1388)	BRIDGE WIDENING FROM 4 TO 6 LANES	√	√				√				
LA	L	MONTEREY PARK	LA0D190	LA0D190	0	0.0	0.0	ATLANTIC BL	NEWMARK AVE.	HILLMAN AVE.	NO. ATLANTIC BLVD - NEWMARK AVE TO HILLMAN AVE - CHANNELIZATION WIDEN TO SIX LANES OF OPERATION TO INCLUDE ACCELERATION & DECELARATION LANE OPRTN MDIFCTION; FROM 4 TO 6 LNS.	WIDEN NORTH ATLANTIC BLVD TO SIX LANES OF OPERATION TO INCLUDE ACCELERATION & DECELARATION LANE OPRTN MDIFCTION WIDEN FROM 4 LANES CURRENTLY TO 6 LANES (ADD 1 LANE IN EACH DIRECTION)	√	√		√						
LA	L	PALMDALE	LA9811099	LA9811099	0	0.0	0.0	20TH ST WEST	P-8	ELIZABETH LAKE ROAD	20TH STREET WEST FROM AVENUE P-8 TO ELIZABETH LAKE ROAD 1 MILE STREET EXTENSION AND WIDENING FROM 0 TO 4 LANES	EXTENSION WIDEN FROM 0 TO 4 LANES	√	√					√			
LA	L	PALMDALE	LA981101	LA981101	0	0.0	0.0	AVE 2	SHEFFIELD	25TH STREET EAST	AVENUE S FROM SHEFFIELD TO 25TH ST STREET EAST WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
LA	L	PALMDALE	1A1006	LAF3107	0	0.0	0.0	AVE S	30TH ST EAST	45TH ST EAST	AVENUE S WIDENING PHASE II. PROVIDE A 6 LANE ROADWAY, SIDEWALK, CURB AND GUTTER, CLASS 1 BIKEWAY, TRAFFIC SIGNALS, AND ENHANCEMENTS.	WIDEN 4 TO 6 LANES								√		
LA	L	PALMDALE	LA960134	LA960134	0	0.0	0.0	AVE S	HIGHWAY 14	DOWNING STREET	AVE S HIGHWAY 14/DOWNING ST (WIDEN 4 TO 6 LANES) 3 LANES EA DIR	WIDEN 4 TO 6 LANES	√	√						√		

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															2008	2009	2010	2012	2014	2020	2030	2035
LA	L	PALMDALE	LA9811102	LA9811102	0	0.0	0.0	AVE S	5TH STREET EAST	10TH STREET EAST	AVENUE S RAIROAD OVERPASS WEST OF SIERRA HIGHWAY WIDEN BRIDGE FROM 4 TO 6 LANES. INCLUDES GRADE SEPARATION OF SIERRA HIGHWAY AND APPLICABLE RAMPING.	WIDEN FROM 4 TO 6 LANES	√	√						√		
LA	L	PALMDALE	LA996365	LA996365	0	0.0	0.0	AVE S	20TH STREET EAST	ROUTE 14	AVENUE S WIDENING- WIDEN 2 MILES FROM 20TH STREET EAST TO RTE. 14 FROM 2 LANES TO 4 LANES IN EACH DIRECTION AND 1 LEFT TURN LANE. 4 TO 6 LANES WILL BE DONE AT A LATER DATE.	WIDEN FROM 2 TO 4 LNAES IN EACH DIRECTION	√	√	√							
LA	L	PALMDALE	LA0C51	LA0C51	0	0.0	0.0	RANCHO VISTA BL	FAIRWAY DR	20TH ST. EAST	RANCHO VISTA BLVD/AVE P WIDENING FROM FAIRWAY DR. TO 20TH ST. EAST - 4 TO 6 LANES; W/SIDEWALKS, BIKE LNS, LANDSCAPING, SIGNAL MODIFICATION, DRAINAGE IMPROVE	WIDENING 4 TO 6 LANES; W/SIDEWALKS, BIKE LNS, LANDSCAPING, SIGNAL MODIFICATION, DRAINAGE IMPROVE	√	√						√		
LA	L	PALMDALE	LAF1104	LAF1104	0	0.0	0.0	RANCHO VISTA BL	SIERRA HWY/RR TRACKS		Rancho Vista Bl Grade Separation at Sierra Hwy/UPRR/Metrolink RR Crossing and applicable connector ramps/roads and auxiliary roads. Includes improvements to Rancho Vista Blvd. from 4 to 6 lanes, Sierra Highway 4 to 6 lanes, and Ave P-8 from 4 to 6 lanes.	Project location: In the City of Palmdale, along Rancho Vista Blvd. at Sierra Highway and the UPRR/Metrolink railroad crossing, between Fairway Drive and 10th Street East, and along Sierra Highway at the structure. In addition, Avenue P-8 will be improved from approximately 300 feet west of Division Street to Sierra Highway. The project proposes to construct a grade separation at Rancho Vista Blvd. from both Sierra Highway and the double track at-grade railroad crossing of both Metrolink and Union Pacific Railroad tracks. This project includes improvements to Rancho Vista Blvd. from 4 to 6 lanes, Sierra Highway 4 to 6 lanes, and Avenue P-8 from 4 to 6 lanes, will require the construction of connector roads in order to reestablish the connection between Rancho Vista and Sierra Highway, and various intersection improvements. Also includes accommodation of a new 4th Street connection, however will not be open to traffic.	√							√		
LA	L	PALMDALE	LA0D145	LA0D145	0	0.0	0.0	TIERRA SUBIDA			TIERRA SUBIDA WDENG FRM AV S TO PALMDALE BL. 2 TO 4 LNES FRM AV S TO AV Q-8; 4 TO 6 LNS FRM AV Q-8 TO PALMDALE BL; WITH SDWLKS, BIKE LNS, LNDSCAPNG, DRANGE IMPRVMNTS & TRAFC SGNLS.		√	√						√		
LA	L	PORT OF LOS ANGELES	LA0D390	LA0D390	0	0.0	0.0	HARBOR BL	I-110 / SR-47		The proposed project is to improve the Interstate 110 northbound at the John S. Gibson Boulevard northbound ramps and the northbound SR-47/I-110 connector. The proposed work includes widening the SB SR-47 to NB I-110 connector from one to two lanes beginning at SR-47 Post Mile 0.72 (Station 535+00) just west of the Front Street on-ramp. This additional through lane will continue on the northbound I-110 and terminate just north of the John S. Gibson Boulevard off-ramp. The work also includes widening the northbound I-110 on-ramp at John S. Gibson Boulevard to improve access to the freeway and improving the intersection of John S. Gibson Boulevard and the I-110 northbound ramps with improved turning radii and re-striping		√	√					√			
LA	L	SANTA CLARITA	LA9910008	LA9910008	0	0.0	0.0	BOUQUET CANYON	OVER SANTA CLARA RIVER	TO 500 FEET FROM VALENCIA BLVD	BOUQUET CYN OVER SANTA CLARA RIVR TO 500 FT FROM VALENCIA BL - REHAB, WIDEN, LINING RESTORATION FROM 6 TO 8 LANES AND A BIKE LANE -- 525 FT.	WIDEN FROM 6 TO 8 LANES	√	√	√							
LA	L	SANTA CLARITA	LA0B7096	LA0B7096	0	0.0	0.0	CROSS VALLEY CONNECTOR	I-5	COPPER HILL DR	CROSS VALLEY CONNECTOR GAP CLOSURE-I-5 TO COPPER HILL DR.-INCL.ENVIRONMENTAL STUDIES & PREPARATION OF PLANS, SPEC., & ESTIMATES FOR A FWY CONNECT. 0 TO 8 LANES (E/P & PS/E ONLY)	ENVIRONMENTAL STUDIES & PREPARATION OF PLANS, SPEC., & ESTIMATES FOR A FWY CONNECT. 0 TO 8 LANES	√	√	√							
LA	L	SANTA CLARITA	LA0C8096	LA0C8096	0	0.0	0.0	CROSS VALLEY CONNECTOR	I-5	COPPER HILL DRIVE	CROSS VALLEY CONNECTOR GAP CLOSURE; I-5 TO COPPER HILL DR - INCLUDES THE CONSTRUCTION OF AN 8-LANE DIVIDED ARTERIAL, OUTSIDE CURB AND GUTTER, & DRAINAGE IMPROVEMENTS.	CONSTRUCT 8 LANE DIVIDED ARTERIAL	√	√	√							
LA	L	SANTA CLARITA	LA0D473	LA0D473	0	0.0	0.0	DOCKWEILER DR	LYONS AV	LEONARD TREE LANE	DOCKWEILER DR EXTENSION FROM LYONS AV TO EXISTING DOCKWEILER DR: CONSTRUCT A 4-LANE FACILITY (2 LANES IN EACH DIRECTION), OUTSIDE CURB & GUTTER, AND DRAINAGE IMPROVEMENTS	CONSTRUCT A 4-LANE FACILITY (2 LANES IN EACH DIRECTION), OUTSIDE CURB & GUTTER, AND DRAINAGE IMPROVEMENTS	√						√			

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															2008	2009	2010	2012	2014	2020	2030	2035
LA	L	SANTA CLARITA	LA0B103	LA0B103	0	0.0	0.0	GOLDEN VALLEY RD			CONSTRUCT GOLDEN VALLEY ROAD FROM SOLEDAD CANYON TO NEWHALL RANCH ROAD.0 TO 6 LANES. LESS THAN 0.5 MILES- INCLUDES TWO SEPARATE PARALLEL BRIDGE STRUCTURES IDENTIFIED AS BRIDGES 4009 AND 4022 OVER SANTA CLARA RIVER, EACH STRUCTURE WILL HAVE 3 LANES.		√	√				√				
LA	L	SANTA CLARITA	LA0B104	LA0B104	0	0.0	0.0	GOLDEN VALLEY RD	NEWHALL RANCH ROAD	PLUM CANYON RD	GOLDEN VALLEY ROAD - NEWHALL RANCH ROAD TO PLUM CANYON ROAD. 0 TO 4 LANES APPROXIMATELY 1.5 MILES.	NEW ROAD FROM 0 TO 4 LANES	√							√		
LA	L	SANTA CLARITA	LA0B105	LA0B105	0	0.0	0.0	GOLDEN VALLEY RD	SIERRA HWY	SR-14	GOLDEN VALLEY ROAD - FROM SIERRA HIGHWAY TO SR-14 INTERCHANGE . 0 TO 4 LANES APPROXIMATELY 1.0 MILE	WIDEN FROM 0 TO 4 LANES	√	√	√							
LA	L	SANTA CLARITA	LA0B107	LA0B107	0	0.0	0.0	GOLDEN VALLEY RD	VIA PRINCESSA	SOLEDAD CANYON ROAD	GOLDEN VALLEY RD FROM VIA PRINCESSA TO SOLEDAD CANYON RD. 0 TO 6 LANES. APPROXIMATELY ONE MILE	CONSTRUCT ROAD FROM 0 TO 6 LANES	√	√	√							
LA	L	SANTA CLARITA	LA0B7235	LA0B7235	0	0.0	0.0	GOLDEN VALLEY RD	AT SOLEDAD CANYON ROAD		GOLDEN VALLEY ROAD/SOLEDAD CANYON ROAD INTERCHANGE. WILL ACQUIRE ROW AND CONSTRUCT A GRADE-SEPARATED INTERCHANGE FOR THE GOLDEN VALLEY ROAD. PPNO 2881.	NEW INTERCHANGE FRO GOLDEN VALLEY ROAD	√	√	√							
LA	L	SANTA CLARITA	LA0D477	LA0D477	0	0.0	0.0	GOLDEN VALLEY RD	SR-14		CONSTRUCT IMPROVEMENTS FOR SR-14 INTERCHANGE AT GOLDEN VALLEY ROAD. DIAMOND CONFIRGURATION, TWO RAMPS, IMPROVEMENTS INCLUDE WIDENING OF BRIDGE OVERCROSSING (ADD 1 WB & 1 EB THRU LN, 2 LEFT TURNS NB ON-RAMP, 1 LEFT TURN SB ON-RAMP), NEW SIGNALS, RAMP MOD	FROM 2 LANES TO 6 LANES - ADD 1 WB THRU LANE, 1 EB THRU LANE, 2 LEFT TURNS NB ON-RAMP, 1 LEFT TURN LANE SB ON-RAMP	√	√				√				
LA	L	SANTA CLARITA	LA960170	LA960170	0	0.0	0.0	MAGIC MOUNTAIN PKWY	SAN FERNANDO RD	VIA PRINCESSA	MAGIC MOUNTAIN PARKWAY EXTENSION FROM SAN FERNANDO RD TO VIA PRINCESSA: CONSTRUCT A NEW ROAD WITH 3 LANES IN EACH DIRECTION	CONSTRUCT A NEW ROAD WITH 3 LANES IN EACH DIRECTION	√							√		
LA	L	SANTA CLARITA	LA996363	LA996363	0	0.0	0.0	MAGIC MOUNTAIN PKWY	I-5		I-5/MAGIC MT. PKWY (SR-126) INTERCHANGE RECONSTRUCTION: CONSTRCT. S/B AUXILLARY LANE TO THE OFF-RAMP. WDN MAG. MTN PKWY AT FREEWAY (FROM 6 TO 8 LANES). (PPNO 2364 3705).	CONSTRUCT SOUTHBOUND AUXILLARY LANE TO THE OFFRAMP	√	√		√						
LA	L	SANTA CLARITA	1A1007	LAF3105	0	0.0	0.0	MCBEAN PKWY BRIDGE	MCBEAN PKWY	SANTA CLARA RIVER TRAIL	MCBEAN PARKWAY WIDENING/GAP CLOSURE OVER SANTA CLARA RIVER. WIDEN MCBEAN PARKWAY BRIDGE TO 8 LANES AND CONSTRUCT CLASS I PATH CONNECTION BETWEEN MCBEAN PARKWAY AND SANTA CLARA RIVER TRAIL.	THE PROJECT IS LOCATED IN THE CITY OF SANTA CLARITA. MCBEAN PARKWAY WITHIN THE PROJECT LIMITS IS ON A ROUGHLY NORTH-SOUTH ALIGNMENT. THE NEAREST MAJOR CROSS STREETS ARE NEWHALL RANCH ROAD TO THE NORTH AND MAGIC MOUNTAIN PARKWAY TO THE SOUTH. THE TOTAL LENGTH OF THE ROADWAY GAP CLOSURE PROJECT IS APPROXIMATELY 0.25 MILES								√		
LA	L	SANTA CLARITA	LA0B106	LA0B106	0	0.0	0.0	NEWHALL RANCH RD	GOLDEN VALLEY ROAD	BOUQUET CANYON ROAD	NEWHALL RANCH ROAD FROM GOLDEN VALLEY ROAD TO BOUQUET CANYON ROAD. 0 TO 6 LANES APPROXIMATELY 1.5 MILES	0 TO 6 LANES APPROXIMATELY 1.5 MILES	√	√	√							
LA	L	SANTA CLARITA	LA9708004	LA9708004	0	0.0	0.0	SANTA CLARITA PKWY	BOUQUET CANYON ROAD	SOLEDAD CANYON	SANTA CLARITA PARKWAY FROM BOUQUET CYN RD/SOLEDAD CYN INSTALL NEW ROADWAY (0 TO 4 LANES) (2.5 MILE)	NEW ROAD FROM 0 TO 4 LANES	√							√		
LA	L	SANTA CLARITA	LA9910016	LA9910016	0	0.0	0.0	SANTA CLARITA PKWY	SOLEDAD CYN RD	VIA PRINCESSA	SANTA CLARITA PKWY FROM SOLEDAD CYN RD TO VIA PRINCESSA (1.6 MILES); FROM 0 TO 6 LANES.	(1.6 MILES); FROM 0 TO 6 LANES.	√							√		
LA	L	SANTA CLARITA	LA9910017	LA9910017	0	0.0	0.0	SANTA CLARITA PKWY	VIA PRINCESSA	STATE HWY 14	SANTA CLARITA PKWY FROM VIA PRINCESSA TO STATE HWY 14 (1 MILE) FROM 0 TO 6 LANES.	(1 MILE) FROM 0 TO 6 LANES.	√							√		
LA	L	SANTA CLARITA	LA0D476	LA0D476	0	0.0	0.0	VIA PRINCESSA	MAGIC MOUNTAIN PKWY	GOLDEN VALLEY RD	VIA PRINCESSA EXTENSION FROM MAGIC MOUNTAIN PKWY TO GOLDEN VALLEY RD: CONSTRUCT APPROXMTLY A 1-MILE FACILITY (3 LANES IN EACH DIRECTION), OUTSIDE CURB & GUTTER, & DRAINAGE IMPRVMT	VIA PRINCESSA EXTENSION WILL BE 3 LANES IN EACH DIRECTION (ABOUT 1 MILE), 6 LANES, DRAINAGE, CURB GUTTER. PROJECT LENGTH IS APPROXIMATELY 1 MILE AND IS LOCATED AT THE FUTURE MAGIC MOUNTAIN PARKWAY/VIA PRINCESSA INTERSECTION TO GOLDEN VALLEY ROAD	√							√		
LA	L	SANTA CLARITA	LA9910013	LA9910013	0	0.0	0.0	VIA PRINCESSA	GOLDEN VALLEY RD	350 M WEST OF RAINBOW GLEN	VIA PRINCESSA FROM GOLDEN VALLEY RD TO 350M WEST OF RAINBOW GLEN DRIVE, EAST OF ISABELLA PKWY. FROM 0 - 6 LANES; LESS THAN ONE MILE	FROM 0 - 6 LANES; LESS THAN ONE MILE	√	√						√		
LA	L	SANTA CLARITA	LA9910014	LA9910014	0	0.0	0.0	VIA PRINCESSA	OAKRIDGE DR	MAGIC MTN PRKWAY	VIA PRINCESSA FROM OAKRIDGE DRIVE TO MAGIC MTN PRKWAY. FROM 0 - 6 LANES; LESS THAN ONE MILE.	FROM 0 - 6 LANES; LESS THAN ONE MILE	√							√		
LA	L	SIGNAL HILL	LA0C8095	LA0C8095	0	0.0	0.0	CHERRY AVE	19TH	PACIFIC COAST HWY	CHERRY AVE. WIDENING PROJECT. BET 19TH ST AND PACIFIC COAST HIGHWAY BY WIDENING THE ARTERIAL FROM ONE TO TWO LANES IN EACH DIRECTION.(PPNO 3128). SAFETEA-LU #3203	WIDEN FROM 1 TO 2 LANES IN EACH DIRECTION	√	√				√				
LA	L	SIGNAL HILL	LA960168	LA960168	0	0.0	0.0	SPRING ST	LONG BEACH BLVD	ORANGE AVENUE	SPRING STREET - FROM LONG BEACH BLVD TO ORANGE AVENUE (2 TO 4 LANES)	WIDEN FROM 2 TO 4 LANES	√	√	√							

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															2008	2009	2010	2012	2014	2020	2030	2035
LA	L	SOUTH GATE	1A1008	LAF3124	0	0.0	0.0	FIRESTONE BL	ALAMEDA STREET	ANETTA AVE	FIRESTONE BOULEVARD CAPACITY IMPROVEMENTS. INCREASE THE NUMBER OF LANES FROM 4 TO 6 ON FIRESTONE BLVD WITHIN THE ROW, RAISED LS MEDIANS, SIDEWALKS, BUS SHELTERS & PULLOUTS, C&G, STREET LIGHTING, & UTILITY RELOCATION.									√		
LA	L	SOUTH GATE	LA996348	LA996348	0	0.0	0.0	FIRESTONE BL	AT THE RIO HONDO CHANNEL BRIDGE	GARFIELD	WIDEN FIRESTONE BLVD BRDGE OVER THE RIO HONDO CHANNEL AND MINOR STREET WIDENING BETWEEN THE BRIDGE AND GARFIELD AVE. ADD 1 WB LN (FROM 2 TO 3 LNS). PPNO 2362. (53C1973)	ADD ONE WESTBOUND LANE FROM 2-3. This project involves widening both sides of Firestone Blvd. Bridge over Rio Hondo Channel to provide a three through lanes in each direction with a center raised median island.	√	√		√						
LA	L	SOUTH GATE	LAF1178	LAF1178	0	0.0	0.0	FIRESTONE BLVD	AT ATLANTIC BLVD.		I-710 Early Action Plan - Intersection Improvements at Firestone Blvd/Atlantic Avenue Intersection. Firestone Blvd is existing 2 lanes in each direction, after the project will be 3 lanes in each direction. The length of the project is .75 miles. Primaril	Firestone Blvd is existing 2 lanes in each direction, after the project will be 3 lanes in each direction. The length of the project is .75 miles	√	√				√				
LA	L	SOUTH PASADENA	LA996090	LA996090	0	0.0	0.0	AT MISSION & MERIDIAN			MISSION MERIDIAN TRAN. ORIENTED PARKING EXPANSION CONSTRUCT 142-CAR PRKNG GARAGE	CONSTRUCT PARK-N-RIDE 142 SPACES	√	√	√							
LA	L	SOUTH PASADENA	LAOB422	LAOB422	0	0.0	0.0	FAIR OAKS AVE	AT 110 FWY I/C	COLUMBIA	FAIR OAKS AV & SR-110 IMPROVEMENT PROJECT (ROGAN FUNDS, HR5394) WIDEN EB OFF-RAMP FROM 2 TO 3 LNS AND CONSTRUCT HOOK ON-RAMP FOR WB TRAFFIC ENTERING FWY	WIDEN SR110 EASTBOUND OFF RAMP FROM 2 TO 3 LANES AND CONSTRUCT HOOK RAMP FRO WESTBOUND TRAFFIC ENTERING FREEWAY	√	√						√		
LA	L	TORRANCE	LA000389	LA000389	0	0.0	0.0	DEL AMO BL	MADRONA AVE	CRENSHAW BLVD	DEL AMO BLVD FROM MADRONA AVE TO CRENSHAW BLVD CONSTRUCT 0 TO 4 LANES NEW GRADE SEPARATION (CFP 6361, 4314; PPNO 2371).	CONSTRUCT 0 TO 4 LANE	√	√				√				
LA	L	WESTLAKE VILLAGE	LA960142	LA960142	0	0.0	0.0	LINDERO CANYON RD	AGOURA RD	VIA COLINAS	Rte 101/Lindero Canyon Road Interchange Improvement Project. Lindero Cyn Rd between Via Colinas and Agoura Rd will be widened from 2 lanes to 3 lanes in each direction. 2. Ramp G-6 will be widened to 2 lanes and will provide for 2 free right turn lanes for eastbound Via Colinas traffic at Lindero Cyn Rd. 3. The existing northbound auxiliary lane will be extended southerly from its terminus at Ramp G-6 to Ramp G-3.		√	√					√			
LA	L	WHITTIER	LA0G257	LA0G257	0	0.0	0.0	PARK AND RIDE FACILITY	LAMBERT ROAD / MILLS AVE		ADD PARK AND RIDE FACILITY							√				
LA	T	ANTELOPE VALLEY TRANSIT AUTHORITY	LA0C8217	LA0C8217	0	0.0	0.0	BUS PURCHASE			PURCHASE EXPANSION OVER THE ROAD COMMUTER COACHES (6) (FUNDS FROM LA UZA). RELIEVE OVERCROWDING ON THE 40-FOOT BUSES WILL ALLOW AVTA TO OPERATE TWO NEW ROUTES IN SFV/GLEN./PAS.	These vehicles will be used to expand the operating capacity of AVTA's Commuter Routes 785(AM:Lancaster-Palmdale-Downtown Los Angeles with the reverse trips in the PM); 786(AM:Lancaster-Palmdale-Century City-West L.A. with reverse trips in the PM);and 787(AM:Lancaster-Palmdale-West San Fernando Valley with reverse trips in the PM)	√	√		√						
LA	T	ANTELOPE VALLEY TRANSIT AUTHORITY	LA0D132	LA0D132	0	0.0	0.0	BUS PURCHASE			PURCHASE 8 ARTICULATED HYBRID VEHICLES FOR LOCAL TRANSIT. (LA UZA)	These vehicles would be used to start new, express service between the Palmdale Transportation Center, Lancaster City Park facility and 47th Street East and Avenue S (Walmart). This would be on 30 minute headways and would require six buses. In addition, two vehicles are required in Palmdale to fix timing issues due to traffic and new development. These would be deployed on the route 2/3/8 which is anticipated to be reworked when these vehicles are available.	√	√		√						
LA	T	ANTELOPE VALLEY TRANSIT AUTHORITY	LA0D134	LA0D134	0	0.0	0.0	BUS PURCHASE			PURCHASE 4 EXPANSION VEHICLES FOR LOCAL TRANSIT. (LANCASTER / PALMDALE UZA)□	The intent is to move to a grid system in Lancaster. The route 11/12 would be split into two routes and the route 4 would be expanded. This would require the addition of four buses to stay on 30 minute headways. the purpose is to make the routes easier to understand and easier to expand while fixing timing and load issues.	√	√	√							
LA	T	ANTELOPE VALLEY TRANSIT AUTHORITY	LA0D353	LA0D353	0	0.0	0.0	BUS PURCHASE			PURCHASE LOCAL TRANSIT BUSES-EXPANSION (6) (LANCASTER/PALMDALE UZA)	THIS IS A CAPACITY EXPANSION. THESE ROUTES WILL RUN ON 30 MINUTE CONTINUOUS HEADWAYS FROM 6:00 AM TO MIDNIGHT DAILY. CURRENTLY, THESE ROUTES HAVE A 1 HOUR LOOP TIME. THE NEW VEHICLES WILL RUN ON EXISTING ROUTES. THE EXISTING ROUTES ARE THE CURRENT AVTA ROUTES #1, #2, #9, #11, AND #13.	√	√		√						
LA	T	ANTELOPE VALLEY TRANSIT AUTHORITY	LA0D428	LA0D428	0	0.0	0.0	PASSENGER STATION			PURCHASE PROPERTY/CONSTRUCT PASSENGER TRANSFER STATION	Purchase of two propoerties, each approx. two acres, one in the vicinity of 70th Street West and Ave K and the second in close proximity to Jackie Robinson Park for construction of passenger transfer facility. It is anticipated that the transfer stations will be served by urban routes 9, 2, 1, 6 and possibly route three as well	√	√			√					
LA	T	ANTELOPE VALLEY TRANSIT AUTHORITY	LA960202	LA960202	0	0.0	0.0	MAINTENANCE FACILITY			PHASE II AND III OF MAINTENANCE AND OPERATIONS FACILITY AND LAND ACQUISITION CONSTRUCTION (UZA-LA) LOCATED AT 42210 6TH STREET WEST, LANCASTER(LA UZA)		√	√				√				

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															2008	2009	2010	2012	2014	2020	2030	2035
LA	T	AZUSA, CITY OF	1TR1005	LAF3434	0	0.0	0.0	AZUSA INTERMODAL TRANSIT CENTER.			CONSTRUCT REGIONAL AZUSA INTERMODAL TRANSIT CENTER TO ACCOMMODATE EXISTING AND FUTURE PARKING DEMAND AND SUPPORT EFFECTIVE TRANSIT USE.	The proposed Azusa Intermodal Transit Center project is a mass transit and mobility improvement initiative that will provide the City of Azusa with a new intermodal hub and integrated garage with 379 parking spaces in a 3-level structure. The structure would be located on the southeast quadrant of Alameda Ave./Santa Fe.							√		
LA	T	BELL GARDENS	LA0F099	LA0F099	0	0.0	0.0	TRANSIT CENTER AND PARK AND RIDE			TRANSIT CENTER AND PARK AND RIDE; CONSIST OF BUS STOP AMENITIES INCLUDING NEW BUS SHELTER, BENCHES, LANDSCAPING ETC.THE TRANSIT CENTER WILL BE SUPPORTED BY A 283 SPACE PARK & RIDE - 8000 PARK LN		√				√					
LA	T	BELLFLOWER	1TR1009		0	0.0	0.0	LAKEWOOD STATION TRANSIT CENTER AND PARK-AND-RIDE			CONSTRUCT TRANSIT CENTER AND PARK-AND-RIDE LOT FOR CONNECTION TO THE METRO GREEN LINE AT LAKEWOOD STATION. A TOTAL OF 230 PARKING SPACES ARE PROPOSED.								√		
LA	T	BURBANK	LAE0119	LAE0119	0	0.0	0.0	BUS PURCHASE			CNG TRANSIT REPLACEMENT VEHICLES PURCHASE FOR LOCAL TRANSIT NETWORK	Look at www.burbankbus.org for routes, maps, schedules, etc: - Service Expansion No Ho North Route- 12 stops; Empire/Downtown-24 stops; Media District/Downtown-15 stops; No Ho South Route- 7 stops. 13 new buses all CNG}	√	√				√				
LA	T	BURBANK	LAF1455	LAF1455	0	0.0	0.0	CROSS-TOWN TRANSIT CONNECTOR			Cross-Town Transit Connector and Service Expansion. Funds to acquire two (2) of four (4) requested CNG Buses to implement new local transit service.	Route from North Hollywood Red line station to Downtown Burbank metrolink station. Route along Magnolia Blvd every 1/4 mile in the City of Burbank. Fare price $1 per trip (preliminary stages)	√	√					√			
LA	T	CARSON, CITY OF	LA0C8219	LA0C8219	0	0.0	0.0	SOUTH BAY PAVILION REGIONAL TRANSIT CTR			SOUTH BAY PAVILION REGIONAL TRANSIT CTR. CONSTRUCTION OF A TRANSIT CTR AT THE SOUTH BAY PAVILION SHOPPING CTR TO BE SERVED BY ALL 8 CARSON CIRCUIT RTES & MTA LINES #205 & #446-447.		√	√			√					
LA	T	CARSON, CITY OF	LAE0108	LAE0108	0	0.0	0.0	BUS PURCHASE			PURCHASE TWO TRIPPER BUSES TO RELIEVE OVERCROWDING DURING PEAK PERIODS. ROUTE G AND D, BLUELINE STATION AT DEL AMO BLVD/I-710 TO SOUTH BAY PAVILION MALL, DEL AMO BLVD	THE TRIPPERS BUSES WILL RUN THE "D" AND "G" ROUTES AS SECOND BUSES. THEY WILL NOT CHANGE THE EXISTING SCHEDULE BUT WILL RUN 20 MINUTES LOOPS INSTEAD OF THE 40 MINUTES LOOPS WE ARE CURRENTLY RUNNING. THE BUSES WILL AUGMENT THE EXISTING BUSES. IT WILL ALLEVIATE OVERCROWDING BECAUSE OF THE EXTRA BUSES RUNNING EVERY LOOP.	√	√			√					
LA & OR	T	CHSRA	HSRT0701		0	0.0	0.0	CA HIGH SPEED RAIL	ANAHEIM	UNION STATION	CA HIGH SPEED RAIL: ANAHEIM TO UNION STATION									√		
LA	T	CULVER CITY MUNI BUS LINES	LA0B400	LA0B400	0	0.0	0.0	BUS PURCHASE			PURCHASE CNG BUSES AND EXPAND NATURAL GAS FUELING FACILITY (SAFETEA-LU TRANSIT PROJECT #207) PROCUREMENT OF SIX (6) 40' CNG EXPANSION BUSES.		√	√	√							
LA	T	FOOTHILL TRANSIT	1TR08D08	LA0G142	0	0.0	0.0	I-10 HOT LANE TRANSIT SERVICE	MONTCLAIR TRANSIT CENTER	DOWNTOWN LA	ENHANCED PEAK FREQUENCIES FOR TRANSIT SERVICE FROM MONTCLAIR TRANSIT CENTER TO DOWNTOWN LA	IMPROVEMENTS TO SILVER STREAK AND LINE 699 SERVICE OPERATING SEGMENT 1 (OS 1) ALSO INCLUDES PROJECTS # 1HL08D01, 1HL08D03, 1TR08D07A, 1TR08D07B						√				
LA	T	FOOTHILL TRANSIT ZONE	LA0B311	LA0B311	0	0.0	0.0	PARK AND RIDE FACILITY			PARK AND RIDE FACILITY TRANSIT ORIENTED NEIGHBORHOOD PROGRAM SAFETEA-LU # 341□ (E-2006-BUSP-092) (E-2006-BUSP-173)		√	√				√				
LA	T	GARDENA	LA0D307	LA0D307	0	0.0	0.0	BUS PURCHASE			PURCHASE FIVE (5) ALTERNATIVE FUEL BUSES FOR SERVICE EXPANSION. PART OF SAFETEA-LU TRANSIT PROJECT #260 ALONG WITH LA000507, LA0D340, AND LA0D308	THE ELEVEN BUSES FOR SERVICE EXPANSION IN THESE GARDENA PROJECTS (LA0D340 AND LA0D307) WILL BE USED TO PROVIDE MORE FREQUENT SERVICE (REDUCE HEADWAYS) ON EXISTING GARDENA LINES #1, #2 AND #3. THE EXACT FREQUENCIES ARE YET TO BE DETERMINED, BUT THEY WILL BE IN THE 10 TO 20 MINUTE RANGE, DEPENDING ON THE ROUTE. BUS STOP LOCATIONS WILL REMAIN THE SAME AS CURRENTLY.	√	√		√						
LA	T	GARDENA	LA0D340	LA0D340	0	0.0	0.0	BUS PURCHASE			PURCHASE FIV (5) 40 FT. ALTERNATIVE FUEL BUSES FOR SERVICE EXPANSION. PART OF SAFETEA-LU TRANSIT PROJECT #260 ALONG WITH LA0D308, LA000507, AND LA0D307	The five buses for service expansion will be used to provide the more frequent service (reduce headways) on existing Gardena Lines #1, #2, and #3. The exact frequencies are yet to be determined, but they will be in the 10 to 20 minute range, depending on the route. Bus stop locations will remain the same as currently.	√	√		√						
LA	T	GARDENA	LA0D82	LA0D82	0	0.0	0.0	BUS PURCHASE			PURCHASE OF THREE (3) 40 FT EXPANSION BUSES		√	√	√							
LA	T	GLENDALE	LAFA144	LAFA144	0	0.0	0.0	BUS PURCHASE			PUCHASE OF 4-40 CNG EXPANSION BUSES FOR GLENDALE BEELINE	ROUTE ALONG MAGNOLIA BLVD EVERY 1/4 MILE IN THE CITY OF BURBANK. FARE PRICE $1 PER TRIP							√			
LA	T	LAWA	1TR0101		0	0.0	0.0	GREEN LINE EXTENSION TO LAX	Aviation Green Line Station	Lot C or other location closer to LAX terminals	GREEN LINE EXTENSION (PEOPLE MOVER OR LIGHT RAIL)	Assume LRT until MTA Board adopts preferred alternative; 4 stations from pedestrian bridge-Aviation Green Line Station, ITC Station, Century/Aviation, Century between Airport and Sepulveda, and end of line station at LAX terminals									√	

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LA	T	LOS ANGELES COUNTY MTA	1TR1001		0	0.0	0.0	GREEN LINE SOUTH BAY EXTENSION	Marine Avenue Station	Proposed Redondo Beach Transit Center	GREEN LINE EXTENSION ALONG HARBOR SUBDIVISION TO THE PROPOSED REDONDO BEACH TRANSIT CENTER											√
LA	T	LONG BEACH	LA0C8237	LA0C8237	0	0.0	0.0	FIRST ST PARKING STRUCTURE			THIRD ST/PROMENADE PARKING STRUCTURE-LONG BEACH REDEVELOPMENT AGENCY. EXPANSION OF EXISTING GARAGE TO ACCOMMODATE 100 - 125 TRANSIT ORIENTED PARKING SPACES		√	√					√			
LA	T	LONG BEACH	LAE0332	LAE0332	0	0.0	0.0	LONG BEACH PARK AND RIDE FACILITY			LONG BEACH PARK AND RIDE FACILTY AT 3RD STREET AND PACIFIC AVE SOUTH OF THE MTA BLUE LINE PACIFIC STATION. 300 TO 500 SPACE AND INCLUDE RESIDENTIAL AND COMMERICAL DEVELOPMENT		√	√				√				
LA	T	LOS ANGELES COUNTY	LAF1414	LAF1414	0	0.0	0.0	THIRD ST/LAVERNE AVE			Third Street & La Verne Avenue Parking Structure. Construct a parking structure at Third Street and La Verne Avenue to provide park and ride spaces for area transit users		√							√		
LA	T	LOS ANGELES COUNTY	LAF1427	LAF1427	0	0.0	0.0	HAHN'S TROLLEY			Hahn's Trolley and Shuttle Transit Vehicles. Purchase of five alternatively-fueled Trolleys and three alternatively-fueled Cutaways for fixed route service in the unincorporated area of Willowbrook.		√						√			
LA	T	LOS ANGELES COUNTY	1TR1007		0	0.0	0.0	RAMONA CORRIDOR			RAMONA CORRIDOR TRANSIT CENTER ACCESS PROJECT. CONSTRUCT A NEW UNDERPASS STRUCTURE (APPROXIMATELY ONE MILE) ON RAMONA BLVD UNDER SANTA ANITA AVE TO PROVIDE DIRECT ACCESS TO LOWER LEVEL OF NEW EL MONTE TRANSIT CENTER. THE PROPOSED BUS TUNNEL RAMPS WILL BEGIN EAST OF THE SANTA ANITA AVENUE AND RAMONA BOULEVARD INTERSECTION ON RAMONA BOULEVARD AND THE TUNNEL WILL CONTINUE UNDER SANTA ANITA AVENUE (ALONG ROMONA BOULEVARD) TO THE LOWER LEVEL OF THE EL MONTE TRANSIT CENTER. THE TUNNEL WILL HAVE TWO "BUS ONLY" LANES OF TRAVEL-ONE IN EACH DIRECTION.							√		
LA	T	LOS ANGELES COUNTY MTA	1TR08D07A		0	0.0	0.0	I-10 HOT LANE BRT SERVICE	ARTESIA TRANSIT CENTER (HARBOR TRANSITWAY)	DOWNTOWN LA	BRT SERVICE FROM ARTESIA TRANSIT CENTER TO EL MONTE TRANSIT CENTER VIA I-110/I-10 HOT LANES AND DOWNTOWN LA (SEE ALSO 1TR08D07B)	ENHANCED FREQUENCIES ON EL MONTE BUSWAY LINES 484 & 490 OPERATING SEGMENT 1 (OS 1) ALSO INCLUDES PROJECTS # 1HL08D01, 1HL08D03, 1TR08D08, TR08D07B					√					
LA	T	LOS ANGELES COUNTY MTA	1TR08D07B		0	0.0	0.0	I-110 HOT LANE BRT SERVICE	EL MONTE TRANSIT CENTER (EL MONTE BUSWAY)	DOWNTOWN LA	BRT SERVICE FROM ARTESIA TRANSIT CENTER TO EL MONTE TRANSIT CENTER VIA I-110/I-10 HOT LANES AND DOWNTOWN LA (SEE ALSO 1TR08D07A)	ENHANCED FREQUENCIES ON HARBOR TRANSITWAY LINES 444 & 446/447. OPERATING SEGMENT 1 (OS 1) ALSO INCLUDES PROJECTS # 1HL08D01, 1HL08D03, 1TR08D08, TR08D07A					√					
LA	T	LOS ANGELES COUNTY MTA	UT101		0	0.0	0.0	METRO WESTSIDE SUBWAY EXTENSION SEGMENT 1	Wilshire/Western Station	Fairfax	WESTSIDE SUBWAY EXTENSION FROM WILSHIRE/WESTERN TO FAIRFAX									√		
LA	T	LOS ANGELES COUNTY MTA	1TR1002		0	0.0	0.0	METRO WESTSIDE SUBWAY EXTENSION SEGMENT 2	Fairfax	Century City	WESTSIDE SUBWAY EXTENSION FROM FAIRFAX TO CENTURY CITY										√	
LA	T	LOS ANGELES COUNTY MTA	1TR1003		0	0.0	0.0	METRO WESTSIDE SUBWAY EXTENSION SEGMENT 3	Century City	Westwood	WESTSIDE SUBWAY EXTENSION FROM CENTURY CITY TO WESTWOOD											√
LA	T	LOS ANGELES COUNTY MTA	1CR04		0	0.0	0.0	METROLINK COMMUTER RAIL	Countywide		SERVICE EXPANSION	APPROX. 2015 THROUGH 2035										√
LA	T	LOS ANGELES COUNTY MTA	1TR0404		0	0.0	0.0	REGIONAL CONNECTOR	Alameda / 1st	7th St/Metro Center	LIGHT RAIL IN TUNNEL ALLOWING THROUGH MOVEMENTS OF TRAINS (BLUE, GOLD, EXPO LINES)									√		
LA	T	LOS ANGELES COUNTY MTA	LA0C10	LA0C10	0	0.0	0.0	EXPOSITION LINE LRT PHASE I	7th St/Metro Center	Culver City	EXPOSITION LINE LIGHT RAIL TRANSIT PROJECT PHASE I TO VENICE-ROBERTSON STATION		√	√				√				
LA	T	LOS ANGELES COUNTY MTA	LA0F021	LA0F021	0	0.0	0.0	EXPOSITION LINE LIGHT RAIL PHASE II	VENICE-ROBERTSON STATION	OCEAN/COLORADO	EXPOSITION LINE LIGHT RAIL PHASE II EXTENSION FROM CULVER CITY TO SANTA MONICA		√	√						√		
LA	T	LOS ANGELES COUNTY MTA	LA29202U3	LA29202U3	0	0.0	0.0	SAN FERNANDO VALLEY NORTH/ SOUTH BRT PHASE I			SAN FERNANDO VALLEY NORTH/SOUTH BRT EXTENSION PHASE I: METRO RAPID SERVICE ALONG RESEDA BLVD. AND SEPULVEDA BLVD. SAFETEA-LU # 183		√	√						√		
LA	T	LOS ANGELES COUNTY MTA	LA29202U4	LA29202U4	0	0.0	0.0	SAN FERNANDO VALLEY NORTH/ SOUTH BRT PHASE II			SAN FERNANDO VALLEY NORTH/ SOUTH BRT EXTENSION PHASE II: BUS SPEED IMPROVEMENTS ALONG METRO RAPID CORRIDORS AND EXPANSION OF EXISTING PARK & RIDE FACILITY.		√	√						√		

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LA	T	LOS ANGELES COUNTY MTA	LA29202U6	LA29202U6	0	0.0	0.0	SAN FERNANDO VALLEY NORTH/ SOUTH BRT PHASE IV			SAN FERNANDO VALLEY NORTH/ SOUTH BRT EXTENSION PHASE IV: COMPLETION OF A NORTHBOUND BUS ONLY LANE ON A PORTION OF SEPULVEDA BLVD. AND OTHER IMPROVEMENTS.		√	√						√		
LA	T	LOS ANGELES COUNTY MTA	1TR0705		0	0.0	0.0	SAN FERNANDO VALLEY NORTH-SOUTH METRO ORANGE LINE CANOGA EXTENSION	CANOGA STATION	CHATSWORTH METROLINK STATION	SAN FERNANDO VALLEY NORTH/SOUTH BRT - ORANGE LINE CANOGA EXTENSION FROM WARNER CENTER TO CHATSWORTH (BRT OR LRT, TECHNOLOGY TBD)	Assume BRT until MTA Board adopts preferred alternative							√			
LA	T	LOS ANGELES COUNTY MTA	LA29202V	LA29202V	0	0.0	0.0	GOLD LINE EASTSIDE LIGHT RAIL TRANSIT	UNION STATION	ATLANTIC	EASTSIDE TRANSIT CORRIDOR - UNION STATION TO ATLANTIC VIA 1ST ST. TO LORENA, THEN 3RD ST. VIA 3RD/BEVERLY BLVD. TO ATLANTIC (EASTSIDE LRT PPNO 3358)		√	√								
LA	T	LOS ANGELES COUNTY MTA	1TR1004		0	0.0	0.0	GOLD LINE EASTSIDE TRANSIT CORRIDOR PHASE 2	POMONA/ATLANTIC STATION	MAR VISTA IN WHITTIER	GOLD LINE EASTSIDE TRANSIT CORRIDOR PHASE 2											√
LA	T	LOS ANGELES COUNTY MTA	LA29202W	LA29202W	0	0.0	0.0	MID-CITY TRANSIT CORRIDOR/WILSHIRE BOULEVARD BUS RAPID TRANSIT-PHASE 1-VERY SMALL STARTS PROGRAM	Wilshire Blvd/Valencia Blvd (excludes City of Beverly Hills)	Wilshire Blvd/ Centinela (excludes City of Beverly Hills)	MID -CITY TRANSIT CORRIDOR: WILSHIRE BLVD. FROM WEST OF I-110 FWY TO SANTA MONICA CITY LINE (EXCLUDING CITY OF BEVERLY HILLS)		√	√				√				
LA	T	LOS ANGELES COUNTY MTA	LA29202X	LA29202X	0	0.0	0.0	METRO RED LINE			METRO RED LINE MOS-3: N. HOLLYWOOD 5.9-MILE W/ 3 STATIONS, HIGHLAND TO N.HOLLYWOOD STA. 15,370+ 746= 16,117 118,630+5,754=124,384		√	√	√							
LA	T	LOS ANGELES COUNTY MTA	LA0D198	LA0D198	0	0.0	0.0	CRENSHAW/LAX TRANSIT CORRIDOR	Exposition Crenshaw Station	Metro Green Line	CRENSHAW CORRIDOR - TECHNOLOGY TBD (BRT OR LRT, NO BOARD ADOPTED PREFERRED ALTERNATIVE)	Assume LRT until MTA Board adopts preferred alternative	√							√		
LA	T	LOS ANGELES COUNTY MTA	LA29212XY	LA29212XY	0	0.0	0.0	GOLD LINE FOOTHILL LIGHT RAIL EXTENSION SEGMENT 1	PASADENA	GLENDORA	RAIL GOLD LINE EXTENSION SEGMENT 1- PASADENA TO GLENDORA; SAFETEA-LU # 285 LEAD AGENCY WILL CHANGE TO METRO GOLD LINE		√	√						√		
LA	T	LOS ANGELES COUNTY MTA	1TR0704		0	0.0	0.0	GOLD LINE FOOTHILL LIGHT RAIL EXTENSION SEGMENT 2	GLENDORA	MONTCLAIR	RAIL GOLD LINE EXTENSION-SEGMENT 2 GLENDORA TO MONTCLAIR STATION LRT EXTENSION.									√		
LA	T	LOS ANGELES COUNTY MTA	LA990305	LA990305	0	0.0	0.0	RAIL CAR PURCHASE			LIGHT RAIL TRANSIT FLEET- 50 NEW RAIL CAR.PPNO 3225. 26 FOR SERVICE EXPANSION, 24 REPLACEMENT. 10 EXPANSION FOR METRO GOLD LINE EASTSIDE EXTENSION, 16 EXPANSION FOR EXPOSITION LRT.	10 Expansion for Metro Gold Line Eastside Extension, 16 Expansion for Exposition LRT.	√	√			√					
LA	T	LOS ANGELES COUNTY MTA	RAPID	RAPID	0	0.0	0.0	METRO RAPID BUS EXPANSION			METRO RAPID BUS EXPANSION TO A TOTAL OF 28 LINES IN OPERATION BY 2008		√	√	√							
LA	T	LOS ANGELES COUNTY MTA	1TL104		0	0.0	0.0	COUNTYWIDE BUS SYSTEM			COUNTYWIDE BUS SYSTEM IMPROVEMENT											√
LA	T	LOS ANGELES, CITY OF	LAE0566	LAE0566	0	0.0	0.0	LAX REMOTE TERMINAL FLYAWAY			PURCHASE OF SIX (6) ALTERNATIVE FUELED VEHICLES TO BE USED IN THE EXPANSION OF THE LAX REMOTE TERMINAL FLYAWAY SHUTTLE BUS SYSTEM. LOS ANGELES WORLD AIRPORTS WILL OPERATE THESE BUSES BETWEEN NEW PARK-N-RIDE LOTS AND LAX AIRPORT (FROM TIP DATABASE).	"FLYAWAYS ARE MTA EXISTING PARK-AND-RIDE FACILITIES WITH SHUTTLE SERVICE TO AND FROM LOS ANGELES INTERNATIONAL AIRPORT. A MINIMUM OF SEVERAL HUNDRED PARKING SPACES AT EACH FLYAWAY LOCATION ARE PLANNED. A TERMINAL BUILDING IS PROVIDED TO ACCOMMODATE PASSENGERS WHILE THEY WAIT FOR THE SHUTTLE. BUSES TYPICALLY OPERATE UNDER CONTRACT THROUGH LAWA. THE LOCATIONS OF FUTURE REMOTE TERMINAL FLYAWAY FACILITIES ARE CURRENTLY UNDER STUDY BY LAWA. LAWA, USING ITS OWN FUNDS, BEGAN OPERATING A NEW FLYAWAY FACILITY AT UNION STATION BEGINNING IN MARCH 2006. POTENTIAL LOCATIONS FOR WHICH THE REQUESTED FUNDING MAY BE USED INCLUDE IN THE CITY OF LONG BEACH NEAR THE I-710 AND I-405 FREEWAYS, SYLMAR NEAR THE I-210 AND I-5 FREEWAYS, WESTERN SAN FERNANDO VALLEY, AND THE NORWALK/SANTA FE SPRINGS AREA. NO NEW TRAFFIC LANES ARE PROPOSED WITH THIS PROJECT; SHUTTLES WILL USE THE EXISTING FREEWAY SYSTEM TO TRAVEL TO AND FROM THE AIRPORT. THE TIME TO COMPLETE A FLYAWAY FACILITY IS DIFFICULT TO ESTIMATE AND LARGELY DEPENDS ON THE AVAILABILITY OF SUITABLE PROPERTY." IN GENERAL, OUR FLYAWAY BUSES USE THE F	√					√				

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															2008	2009	2010	2012	2014	2020	2030	2035
LA	T	LOS ANGELES, CITY OF	1TR1006	LAF3419	0	0.0	0.0	SUNSET JUNCTION			SUNSET JUNCTION PHASE 2, SUNSET BLVD FROM SANTA MONICA BLVD TO MANZANITA ST. CREATE A MULTI-MODAL TRANSIT PLAZA TO INTEGRATE PUBLIC TRANSPORTATION, PEDESTRIAN & BICYCLE IMPROVEMENTS THAT WOULD RESULT IN REGIONAL & LOCAL BENEFITS.									√		
LA	T	MONROVIA	LAE0039	LAE0039	0	0.0	0.0	THE PARK AND RIDE LOT IS LOCATED ON MYRTLE AVE FROM POMONA AVE, SOUTH TO THE RAILRD CROSSING, ENCOMPASSING THE EXISTING HISTORIC DEPOT SITE AT 1631 SOUTH MYRTLE AVE.	{MTA modeling notes: 246 parking spaces with bus connections to MTA 270, Foothill 494 and future Gold Line station stop.		TRANSIT VILLAGE PROJECT.PROVIDE A TRANS. FACILITY FOR SATELLITE PARKING FOR THE SIERRA MADRE VILLA GOLD LINE STATION, PARK & RIDE LOT FOR COMMUTERS, A FOOTHILL TRANSIT STORE.		√	√				√					
LA	T	PALMDALE	LA0C8326	LA0C8326	0	0.0	0.0	PALMDALE TRANSPORTATION CENTER			PALMDALE TRANSPORTATION CENTER COMMUTER SERVICE CENTER-A REGIONAL MULTI-MODAL TRANSIT FACILITY IS CURRENTLY IN DESIGN.		√	√	√								
LA	T	PALMDALE	LA996054	LA996054	0	0.0	0.0	MULTI-MODAL TRANSPORTATION CENTER			MULTI-MODAL TRANSPORTATION CENTER AT THE SO WEST CORNER OF 6TH ST AND TECHNOLOGY DR (2000 CFP 7039). PPNO 2907.		√	√	√								
LA	T	REDONDO BEACH	LA0D299	LA0D299	0	0.0	0.0	BUS PURCHASE			ACQUISITION OF (6) ALTER FUEL TRANSIT/PARATRANSIT VEHICLES NOT TO EXCEED 35' SAFETEA-LU TRANSIT #251	All SIX (6) VEHICLES ARE NEW BUSES. THE HEADWAY/FREQUENCY OF THE BUSES IS 30 MINUTES. THERE WILL BE 109 STOPS. BUSES WILL OPERATE BETWEEN 5:00 AM AND 9:00 PM. BUS CAPACITY IS 30 SEATED PASSENERS AND 7 STANDING RIDERS. FARES WILL BE $1. IT REPLACES MTA ROUTE 439. A LIST OF STOPS IS ATTACHED ON THE TAB CALLED LA-LAX-REDONDO BEACH EXPRESS.	√	√				√					
LA	T	SAN FERNANDO	LAE0127	LAE0127	0	0.0	0.0	BUS PURCHASE			PROCUREMENT OF (3) CNG TRANSIT VEHICLES AND RELATED INFRASTRCTURE EQUIPMENT FOR FIXED ROUTE PUBLIC TRANSPORTATION.	"The City of San Fernando proposes a fixed route system operating on two separate routes. The North Loop is approximately seven miles in length while the South Loop approximately five miles in length. We intend to run our trolleys six days a week, Monday through Saturday, 10 hours per day, with three turns (loops) completed each hour. The trolley's CNG consumption rate is estimated to be 3.5 miles per gallon and 16,000 gallons per trolley year each. The basic arithmetic supporting fuel consumption is as follows: 12 miles/loop x 3 loops/hour x 10 hours/day = 360 miles/day; 36 miles/day x 6 days/week x 52 weeks/year = 112,000 miles/year; 112,000 miles/year ÷ 3.5 miles/gallon ÷ 2 trolleys = 16,000 gallons/year each trolley	√	√				√					
LA	T	SANTA CLARITA	LA0C8371	LA0C8371	0	0.0	0.0	BUS PURCHASE			SANTA CLARITA TRANSIT EXPANSION BUSES; WILL ALLOW PHASE 1 OF 5 YEAR MASTER PLAN TO BE IMPLEMENTED WITH NINE LOCAL BUSES AND TWO COMMUTER BUSES.		√	√	√								
LA	T	SANTA CLARITA	LA0D363	LA0D363	0	0.0	0.0	BUS PURCHASE			SANTA CLARITA TRANSIT PHASE 2 - EXPANSION BUSES - 2 OVER THE ROAD COMMUTER BUSES.		√	√				√					
LA	T	SANTA CLARITA	LAF1424	LAF1424	0	0.0	0.0				McBean Regional Transit Center Park and Ride. Purchase land, design, and construct a regional park-and-ride lot adjacent to the McBean Regional Transit Center in the City of Santa Clarita	Add 300 parking spaces Location: McBean Regional Transit Center Park and Ride, Santa Clarita	√	√				√					
LA	T	SANTA CLARITA	LA0G227	LA0G227	0	0.0	0.0	BUS PURCHASE			PURCHASE 2 BUSES FOR ROUTE 757 SEVICE EXPANSION TO NORTH HOLLYWOOD			√				√					
LA	T	SANTA FE SPRINGS	1TR1008		0	0.0	0.0	NORWALK/SANTA FE SPRINGS TRANSPORTATION CTR PARKING			NORWALK/SANTA FE SPRINGS TRANSPORTATION CTR PHASE II PARKING. CONSTRUCT A TOTAL OF APPROX. 150 PARKING SPACES ON A SITE ADJACENT TO THE METROLINK STATION.									√		
LA	T	SANTA MONICA MUNICIPAL BUS	LAE0364	LAE0364	0	0.0	0.0	SOUTH BUNDY DRIVE	NEAR AIRPORT AVENUE		CONSTRUCT INTERMODAL PARK AND RIDE FACILITY AT SANTA MONICA COLLEGE CAMPUS ON SOUTH BUNDY DRIVE NEAR AIRPORT AVENUE		√				√						
LA	T	SCRRA / LACMTA / SANBAG	LA0C8232	LA0C8232	0	0.0	0.0	METROLINK COMMUTER RAIL			ANTELOPE VALLEY LINE CHANGES AT SANTA CLARITA-ALIGNMENT CHANGES WILL PERMIT HIGHER SPEEDS OF OPERATION AND REDUCE MAINTENANCE COST- (SCRRA). (PPNO 3202).		√	√						√			
LA & SB	T	TBD	HSRT0703 & HSRT0704		0	0.0	0.0	EXTENDED IOS	LAX	SAN BERNARDINO	HIGH SPEED REGIONAL TRANSPORT: EXTENDED IOS FROM LAX TO SAN BERNARDINO	STATIONS AT LAX, WEST LA, UNION STATION, WEST COVINA IN LA COUNTY, ONTARIO AND SAN BERNARDINO IN SAN BERNARDINO COUNTY								√			
LA	T	TORRANCE	LA000666	LA000666	0	0.0	0.0	BLUE LINE FEEDER SERVICE			LINE #6 - BLUE LINE FEEDER SERVICE	THE FOLLOWING TRIPS ARE BEING ADDED - 8:30AM, 10:30AM, 11:30AM, AND 1:00PM. THERE WILL BE 84 NEW SERVICE REVENUE MILES AND 5.14 REVENUE SERVICE HOURS WITH 90 MINUTE HEADWAYS.	√	√		√							

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															2008	2009	2010	2012	2014	2020	2030	2035
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA020111	ORA020111	5	3.4	3.6	I-5	AVENIDA PICO	VISTA HERMOSA	I-5 AT AVENIDA PICO SOUTHBOUND OFF RAMP WIDENING FROM 1 TO 2 LANES AND EXTEND THE EXISTING AUX LANE TO CONNECT WITH S/B AUX LANE AT VISTA HERMOSA ON RAMP.	WIDEN SOUTHBOUND OFF RAMP FROM 1 TO 2 LANES. EXTEND EXISTING AUXILIARY LANE TO CONNECT WITH THE SOUTHBOUND AUXILIARY LANE AT VISTA HERMOSA ON RAMP.	√	√	√							
~~OR~~	~~S~~	~~ORANGE COUNTY TRANS AUTHORITY (OCTA)~~	~~2M0714~~	~~ORA990929~~	~~5~~	~~3.3~~	~~0.0~~	~~I-5~~	~~AVENIDA PICO~~		~~WIDEN ON/OFF RAMPS TO 2 LANES~~										~~√~~	
OR	S	CALTRANS	2H01143	ORA990929	5	~~3.3~~ 3.0	8.7	I-5	~~Coast Highway~~ Avenida Pico	~~Avenida Pico~~ San Juan Creek Road	ADD 1 HOV LANE EACH DIRECTION FROM AVENIDA PICO TO SAN JUAN CREEK ROAD & RECONFIGURE AVENIDA PICO INTERCHANGE	Existing Configuration: No HOV Lanes								√		
OR	S	SAN CLEMENTE	10287	10287	5	4.1	0.0	AVENIDA VISTA HERMOSA	AT ROUTE 5 INTERCHANGE		AVENIDA VISTA HERMOSA @ I-5 NEW INTERCHANGE FROM 0 TO 5 LANES ON OVERPASS (2 LANES WEST & 3 LANES EAST)..	FROM 1 TO 5 LANES ON OVERPASS (2 WB & 3 EB)	√	√	√							
OR	S	CALTRANS	ORA030602	ORA030602	5	5.8	0.0	I-5	Camino de Estrella		IN SAN CLEMENTE - SB CAMINO DE ESTRELLA - WIDEN OFF-RAMP FROM 1 TO 2 LANES AND WIDEN OVERCROSSING FROM 5 TO 7 LANES (1 WB LEFT TURN LANE AND 1 EB LANE)		√					√				
OR	S	CALTRANS	2M04109A		5	7.3	0.0	I-5	Stonehill Dr		ADD SOUTHBOUND I-5 OFF-RAMP AT STONEHILL	Existing Config: No SB off-ramp								√		
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA020109	ORA020109	5	8.4	8.7	I-5	AT CAMINO CAPISTRANO INTERSECTION		I-5 AT CAMINO CAPISTRANO INTERSECTION IMPROVEMENT. WIDEN S/B OFFRAMP FROM 2 TO 3 LANES.	WIDEN SOUTHBOUND OFFRAMP FROM 2 TO 3 LANES	√	√				√				
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA120326	ORA120326	5	9.6	0.0	I-5	SR-74		NB/SB AT I-5/SR-74 SEPARATION, REBUILD INTERCHANGE INCLUDING WIDENING OF SR-74 OVERCROSSING		√	√					√			
OR	S	CALTRANS	2M0730		5	12.6	18.7	I-5	AVERY PKWY	ALICIA PKWY	ADD 1 MF LANE EACH DIRECTION	Existing Config: 4 to 5 lanes each direction										√
OR	S	CALTRANS	2M01111		5	12.9	0.0	I-5	Avery Parkway		AVERY PARKWAY RAMP RELOCATION, RECONFIGURATION, UPGRADES	Existing Config: 1 to 2 lane on- and off-ramps									√	
OR	S	CALTRANS	ORA030604	ORA030604	5	13.7	15.0	I-5	Crown Valley		IN THE CITY OF MISSION VIEJO SB OFFRAMP AT CROWN VALLEY PARKWAY - WIDEN OFFRAMP FROM 4 TO 5 LANES		√					√				
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA020112	ORA020112	5	15.1	16.3	I-5	AT OSO PARKWAY EXIT LANE AND NORTHBOUND ON RAMP		I-5 SOUTHBOUND AT OSO PARKWAY EXIT LANE AND INTERCHANGE IMPROVEMENTS. WIDEN FROM 1 TO 2 LANES AND ADD AN EXIT/STORAGE LANE. PLUS SIGHT DISTANCE IMPROV. TO N/B OFF RAMP.	WIDEN FROM 1 TO 2 LANES AND ADD AN EXIT/STORAGE LANE PLUS SIGHT DISTANCE IMPROVEMENT TO NORTHBOUND ON RAMP	√	√		√						
OR	S	CALTRANS	2M01108		5	15.2	16.5	I-5 SB	La Paz Road	Oso Parkway	EXTEND AUXILIARY LANE THROUGH INTERCHANGE	Existing Configuration: aux drops at La Paz, and resumes south of La Paz									√	
OR	S	LAGUNA HILLS	ORA000122	ORA000122	5	16.5	16.5	I-5	LA PAZ INTERCHANGE		I-5 @ LA PAZ INTERCHANGE IMPROVEMENTS. EXPAND LA PAZ RD. FROM 4 TO 6 LANES TOTAL. (99-LHILL-GMA-1125)	ON RAMP EXTENTION LANES	√	√				√				
OR	S	CALTRANS	2M01109		5	16.5	0.0	I-5	La Paz Road		RE-CONSTRUCT INTERCHANGE TO INCREASE STORAGE CAPACITY OF RAMPS	Existing Configuration: 1 to 2 lane on-ramps, 1 to 3 lane SB off-ramp, 1 to 4 lane NB off-ramp									√	
OR	S	CALTRANS	2M01110		5	16.5	17.5	I-5 SB	Alicia Parkway	La Paz Road	EXTEND AUXILIARY LANE THROUGH INTERCHANGE	Existing Config: aux drops at Alicia, and resumes south of Alicia									√	
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2M0718		5	17.0	0.0	I-5	Marguerite Parkway		ADD NEW INTERCHANGE AT MARGUERITE PARKWAY (SADDLEBACK CC CONNECTION)	Existing Config: No interchange								√		
OR	S	CALTRANS	2M0717		5	18.0	0.0	I-5	El Toro Road (Los Alisos)		ADD RAMPS AT LOS ALISOS OR AVE. DE LA CARLOTA	Existing Config: No ramps between El Toro & Alicia									√	
OR	S	CALTRANS	2H0702		5	22.7	0.0	I-5	Barranca Parkway		I-5 @ BARRANCA, ADD SB HOV ON-RAMP AND NB HOV OFF-RAMP	Existing Config: NB HOV on-ramp and SB HOV off-ramp									√	
OR	S	CALTRANS	2M0731		5	23.1	30.3	I-5	SR-133	SR-55	ADD 1 MF LANE EACH DIRECTION	Existing Config: 5 lanes each direction									√	
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA020108	ORA020108	5	26.9	26.9	I-5	CULVER DRIVE	SOUTH SOUND OFF RAMP	I-5 AT CULVER DRIVE S/B OFFRAMP WIDENING FROM ONE TO TWO LANES	WIDENING FROM 1 TO 2 LANES	√	√		√						
OR	S	CALTRANS	ORA120359	ORA120359	5	27.5	28.1	I-5	JAMBOREE INTERCHANGE		I-5 @ JAMBOREE - CONSTRUCT AUX LN ON I-5 SB; WIDEN SB OFF-RAMP FROM 1 TO 2 LANES; AND WIDENING JAMBOREE RD EB UNDERCROSSING TO CREATE A TURN LANE TO NB ON-RAMP	CONSTRUCT AUXILIARY LANE AND WIDEN OFF-RAMP FROM 1 TO 2 LANES	√	√				√				
OR	S	CALTRANS	2M01107		5	30.3	0.0	I-5	SR-55		RECONFIGURE INTERCHANGE TO REDUCE WEAVING - INTERIM PROJECT	Existing Configuration: 2 lanes on all MF connectors; 1 lane HOV for NB 55/5 & SB 5/55										√
OR	S	CALTRANS	2H0703	ORA080911	5	30.3	34.0	I-5	SR-55	SR-57	ADD 1 HOV LANE EACH DIRECTION; RECONSTRUCT THE FIRST ST/FOURTH ST IC ON SB I-5 TO INCREASE WEAVING LENGTH TO STANDARD (EXTEND MERGE LANES BY 100 FEET)	1 to 2 HOV Lanes										√
OR	S	ANAHEIM	ORA000100	ORA000100	5	34.0	43.5	I-5	GENE AUTRY WAY WEST @1-5 HOV TRANSITWAY		GENE AUTRY WAY WEST @ I-5 (I-5 HOV TRANSITWAY TO HASTER) ADD OVERCROSSING ON I-5 (S)/MANCHESTER AND EXTEND GENE AUTRY WAY WEST FROM I-5 TO HASTER (3 LANES IN EA DIR.)	ADD OVERCROSSING ON I-5 SOUTH MANCHESTER EXTEND GENE AUTRY WAY WEST FROM I-5 TO HASTER.	√	√				√				
OR	S	CALTRANS	2M0732		5	34.0	42.1	I-5	SR-57	SR-91	ADD 1 LANE EACH DIRECTION	Existing Config: 4 to 6 lanes each direction									√	
OR	S	CALTRANS	10167	10167	5	42.1	44.4	I-5	ROUTE 91	LOS ANGELES COUNTY LINE	I-5 FROM SR-91 TO LA COUNTY LINE IN BUENA PARK - ADD 1 MIXED FLOW LN AND 1 HOV LN IN EACH DIRECTION FROM 6+0 TO 8+2 LANES.	ADD 1 MIXED FLOW LANE AND 1 HOV IN EACH DIRECTION (FROM 6-0 TO 8)2)	√	√	√							

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OR	S	GARDEN GROVE	ORA100510	ORA100510	22	0.0	0.0	MAGNOLIA	SR-22 NORTHBOUND RAMPS	SR-22 SOUTHBOUND RAMPS	REPLACE SR-22 INTERCHANGES, CONSTRUCT HOV LANES AND LENGTHEN BRIDGES IN GARDEN GROVE	ON MAGNOLIA, ADD 1 ARTERIAL LANE EACH DIRECTION BETWEEN THE SR-22 NORTHBOUND AND SOUTHBOUND RAMPS	√	√	√							
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA000193	ORA000193 & ORA000194	22	0.0	0.7	SR-22	I-405	I-605	HOV CONNECTRS ON 22/405 BTWN SEAL BCH BL. & VALLEY VIEW & ON 405/605 BTWN KATELLA AVE & SEAL BCH BL. W/2ND HOV LN IN EA DIR ON 405 BTWN CONNECTRS EA071631 DUAL LD CALTRANS-OCTA	HOV CONNECTORS ON 22/405 BTWN SEAL BEACH BLVD & VALLEY VIEW, FROM SB 405 TO EB 22 AND WB 22 TO NB 405. HOV CONNECTORS ON 405/605 BTWN KATELLA AVE & SEAL BEACH BLVD, FROM NB 405 TO NB 605 AND SB 605 TO SB 405.	√	√					√			
OR	S	CALTRANS	ORA000195	ORA000195	22	0.7	13.2	SR-22	ROUTE 405	ROUTE 55	HOV LANES (1 EACH DIR) BTWN SR-55 & VALLEY VIEW ST; AUX LANES BTWN INTERCHANGES (EB GLASSELL TO TUSTIN, AT SB I-5 TO EB 22 RMP TO MAIN, EB/WB KNOTT TO BEACH); CONTINUOUS AUX LANE IN EACH DIR BTWN I-5 & BEACH BL. 1 EB COLLECT/DIST LN @ I-5 (1 GP LEWIS TO I-5), BRAID AT CITY DR & BEACH/BROOKHURST RAMP IMPROVEMENTS. BRAID BTWN SB SR-57 CONNECTOR & THE CITY DRIVE RAMPS ON WB SR-22. COLLECT/DIST RD ON EB SR-22 BTWN CITY DRIVE & I-5/SR-22/SR-57 IC.		√	√	~~√~~							
OR	S	GARDEN GROVE	ORA981104	ORA981104	22	7.8	0.0	SR-22	AT HARBOR BLVD INTERCHANGE		RECONSTRUCT HARBOR BLVD INTERCHANGE. 4 LANES EACH DIRECTION (1/4 MILE BEFORE AND AFTER SR-22 RAMPS) 2 HOV LNES(1 E/B & 1 W/B) AND PROPOSED SR-22 HOV LANES.	1. 4 LANES IN EACH DIRECTION. 1/4 MILE BEFORE AND AFTER ROUTE 22 RAMPS. 2. 2 HOV LANES (1 EAST BOUND & 1 WESTBOUND AT THE INTERCHANGE	√	√				√				
OR	S	ORANGE, CITY OF	ORA990443	ORA990443	22	10.5	0.0	SR-22	FROM ROUTE 57	LEWIS STREET	SR-22 AND CITY DRIVE INTERCHANGE IMPROVEMENTS RECONFIGURE FREEWAY INTERCHANGE AT SR-22 FROM SR-57 TO LEWIS STREET - FROM 6/0 TO 6/2 (ADDING 2 HOV LANES)	1. RECONFIGURE FREEWAY INTERCHANGE (FROM 6 + 0) TO (6 + 2) HOV LANES	√	√		√				
OR	S	COSTA MESA	ORA000161	ORA000161	55	1.5	2.0	NEWPORT BL	FROM 17TH STREET	ROUTE 55	NEWPORT BLVD (SR-55 TO 17TH ST) - WIDENING FROM 6 TO 7/8 THROUGH LANES. WIDEN 1 LANE N/B FROM 17TH TO 19TH AND 1 LANE S/B FROM 19TH TO BROADWAY	1. WIDEN 1 LANE NORTHBOUND FROM 17TH TO 19TH. 2. WIDEN 1 LANE SOUTHBOUND FROM 19TH TO BROADWAY.	√	√				√				
OR	S	COSTA MESA	ORA016	ORA016	55	5.8	5.8	SR-55	AT PAULARINO AVENUE		PAULARINO AVE (SR-55 @ PAULARINO AVE) IN COSTA MESA INTERSECTION IMPROVEMENT. ADDING A N/B RAMP AND W/B RIGHT-TURN-LANE.	ADD A NORTHBOUND ON RAMP	√	√						√		
OR	S	CALTRANS	2M0733		55	6.0	13.0	SR-55	I-405	SR-22	ADD 1 MF LANE EACH DIRECTION & FIX CHOKEPOINTS FROM I-405 TO SR-22; ADD 1 AUX LANE EA DIR BTWN EACH ON/OFF RAMP THROUGH PROJECT LIMITS	Existing Config: 4 to 5 lanes each direction									√	
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030610	ORA030610	55	7.0	7.9	SR-55			SR-55 ADD SOUTHBOUND AUXILIARY LANE FROM DYER TO MACARTHUR		√	√				√				
OR	S	IRVINE	550	550	55	7.5	7.6	ALTON AVE	AT ROUTE 55		ALTON AVE IN SANTA ANA CONSTRUCT A NEW 4-LANE (2E/B AND 2W/B) OVERCROSSING & HOV ACCESS RAMPS @SR-55	CONSTRUCT OVERCROSSING & HOV ACCESS RAMPS 2 EASTBOUND AND 2 WEST BOUND LANES	√	√				√				
OR	S	CALTRANS	ORA030603	ORA030603	55	7.8	9.4	SR-55			CONSTRUCT 1 AUX LANE ON SB SR-55 BETWEEN E EDINGER AVE OFF RAMP AND DYER RD ON RAMP		√	√				√				
OR	S	CALTRANS	2M0704		55	7.9	9.4	SR-55 NB	Dyer	Edinger	ADD AUXILIARY LANE	Existing Config: 5 lanes each direction									√	
OR	S	TUSTIN	ORA55261	ORA55261	55	9.0	9.4	SR-55	AT NEWPORT AVENUE BETWEEN EDINGER	VALENCIA	NEWPORT AVE @ SR 55 INTERCHANGE MODIFY NORTHBOUND RTE 55 ON AND OFF RAMPS TO CONNECT TO NEWPORT AVE EXTENSION (FRM 0 TO 6 LNS) (BTWN EDINGER & VALENCIA) (00-TUST-RIP-3190)	1. MODIFY NORTHBOUND ROUTE 55 ON AND OFF RAMPS TO CONNECT TO NEWPORT AVE EXTENSION (FROM 0 TO 6 LANES)	√	√				√				
OR	S	ORANGE, CITY OF	ORA000146	ORA000146	55	16.1	16.1	SR-55	MEATS AVE IC		MEATS AVE @ SR55 INTERCHANGE. CONSTRUCT ON-RAMP/OFF-RAMPS. PART OF SR-55 ENHANCEMENT PROJECTS.(0 TO 2 LANES)	CONSTRUCT ON AND OFF RAMPS 0 TO 2 LANES	√	√					√			
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2M0735A		57	11.8	12.2	SR-57 NB	ORANGEWOOD	KATELLA	EXIST 4 MF N/B; ADD 1 MF N/B FROM ORANGEWOOD TO KATELLA								√			
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA120333	ORA120333	57	12.2	15.7	SR-57 NB	0.3 MI S/O KATELLA	0.3 MI N/O LINCOLN	EXIST 4 MF N/B; WIDEN TO 5 MF LANES N/B FROM 0.3 MI S/O KATELLA TO 0.3 MI N/O LINCOLN (2.92 MILES) --0F0400	Existing Config: 4 to 5 lanes	√	√					√			
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2M0735B		57	15.7	16.4	SR-57 NB	LINCOLN	ORANGETHORPE	EXIST 4 MF N/B; ADD 1 MF N/B FROM LINCOLN TO ORANGETHORPE AND INTERCHANGE IMPROVEMENTS AT SR-91								√			
OR	S	CALTRANS	2H0705		57	13.0	0.0	SR-57	Cerritos		HOV DROP RAMP	Existing Config: No HOV drop ramp										√
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA120332	ORA120332	57	16	21.1	SR-57	ORANGETHORPE	LAMBERT	FROM ORANGETHORPE TO LAMBERT, ADD 1 MF LANE NORTHBOUND		√	√					√			
OR	S	BREA	ORA000107	ORA000107	57	19.9	20.9	SR-57	AT LAMBERT ROAD		AT LAMBERT IN CITY OF BREA. FWY/ARTERIAL (FROM 2 TO 3 LANES) NB ON RAMP	WIDEN ON RAMP FROM 2 TO 3 LANES	√	√				√				
OR	S	CALTRANS	2M0724		57	20.9	0.0	SR-57	LAMBERT		LAMBERT INTERCHANGE IMPROVEMENT	Existing Config: 1 to 2 lane ramps										√

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OR	S	BREA	ORA120320	ORA120320	57	20.9	0.0	SR-57	AT LAMBERT ROAD		SR-57/LAMBERT RD INTERCHANGE IMPROVEMENTS - RECONFIG EXISTING DIAMOND INTERCHANGE TO LOOP RAMP, ADD SB LN ON OFFRAMP	1. RECONFIGURE EXISTING DIAMOND INTERCHANGE TO LOOP RAMP. 2. ADD SOUTHBOUND LAND ON OFF RAMP (NO MAP AVAILABLE)	√	√					√			
OR	S	CALTRANS	2TK01116	ORA000820	57	21.2	0.68	SR-57 NB	Lambert	LA County Line	SR-57 TRUCK CLIMBING AUX LANE FROM LAMBERT TO LA CO LINE PPNO 3847A EC OC120	Existing Config: 4 lanes	√								√	
OR	S	CALTRANS	ORA55073	ORA55073	73	5.4	7.8	SR-73	I-405		COSTA MESA (BRISTOL STREET TO EUCLID) I-405 WIDENING AND RAMP IMPROVMENTS INCLUDING THE I-405/SR-73 INTERCHANGE IN CONJUNCTION WITH ORA55073 (HYLAND)		√	√	√							
OR	S	TCA	10254 (Part 1 of 2)	10254 (Part 1 of 2)	73	9.6	25.5	SR-73	BETWEEN ROUTE 5 IN SAN JUAN CAPISTRANO	ROUTE 73 IN IRVINE	SJHC, 15 MI TOLL RD BETWEEN I-5 IN SAN JUAN CAPISTRANO & RTE 73 IN IRVINE, EXISTING 3/M/F EA.DIR.1 ADD'L M/F EA DIR, PLUS CLIMBING & AUX LNS AS REQ, BY 2015 PER SCAG/TCA MOU 4/5/01	ADD 1 MIXED FLOW LANE IN EA. DIRECTION PLUS CLIMING & AUXILIARY LANES BY 2015. INCLUDES JAMBOREE RD RAMPS TO/FROM NORTH.	√	√					√			
OR	S	TCA	10254 (Part 2 of 2)	10254 (Part 2 of 2)	73	15.0	23.0	SR-73	AT TWO LOCATIONS		SJHC, ADD 4TH MF LN NB IN TWO LOCATIONS: N/O ALISO VIEJO PKWY (PM 15.0) TO N/O LAGUNA CYN RD ON-RAMP (PM 17.7) (2.7 MI), AND FROM CATALINA VIEW TOLL PLAZA CASH LANE MERGE (PM 19.7) TO MACARTHUR BLVD (PM 23.0) (3.3 MI)		√	√			√					
OR	S	CALTRANS	2M0726		73	15.2	0.0	SR-73	Glenwood Drive		COMPLETE GLENWOOD INTERCHANGE TO/FROM SOUTH	Existing Config: No interchange to/from the South										√
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2H0707		73	23.0	0.0	SR-73	I-405	MacArthur	ADD 1 HOV LANE EACH DIRECTION	Existing Config: No HOV lanes										√
OR	S	CALTRANS	2H0706		73	27.8	0.0	SR-73	I-405		HOV CONNECTOR	Existing Config: No HOV Connector										√
OR	S	SAN JUAN CAPISTRANO	ORA000152	ORA000152	74	0.0	0.2	SR-74	ROUTE 5	RANCHO VIEJO ROAD	ORTEGA HWY (RANCHO VIEJO RD TO JUST EAST OF I-5/SR-74 INTERCHAGE) RDWAY WIDEN ADD RT TRN LNE TO CAPAC & REDUCE QUE ON WB SR-74 TO NB I-5 TRN.N/B FRM 2 TO 3 & SB 2 TO 3		√	√					√			
OR	S	ORANGE COUNTY	ORA120507	ORA120507	74	1.0	2.9	ORTEGA HWY	SAN JUAN CAPISTRANO	LA PATA/ORTEGA	ORANGE COUNTY - ORTEGA HWY - WIDEN FRM 2 TO 4 LNS; SAN JUAN CAPISTRANO TO LA PATA/ORTEGA	WIDEN FROM 2 TO 4 LANES	√					√				
OR	S	LA HABRA	ORA000115	ORA000115	90	0.0	2.5	IMPERIAL HWY	LOS ANGELES COUNTY LINE	HARBOR	IMPERIAL HWY SMART ST (LAC TO HARBOR) RESTRIPE 4 TO 6 LNS (LAC LINE TO IDAHO ST. ADD RAISED MEDIAN. MODFY MEDIANS AT 4 INTSECS. ADD BUS PADS, TURNOUTS. COMBINES ORA028 AND ORA029)	WIDEN 4 TO 6 LANES	√	√				√				
OR	S	FULLERTON	ORA021201	ORA021201	90	0.0	2.5	IMPERIAL HWY	HARBOR BLVD.	ROUTE 57	IMPERIAL HWY SMART ST (HARBOR TO SR57) RESTRIPE 4 - 6 LNS (HARBOR BLVD & BERRY ST MEDIAN MODIFICATNS AT PUENTE INTERSEC.) BUS PADS, BUS TURNOUTS & SOUNDWALLS AT VAR LOCATIONS	WIDEN 4 TO 6 LANES	√	√	√							
OR	S	BREA	ORA000105	ORA000105	90	5.5	8.0	IMPERIAL HWY	EAST OF VALENCIA	TO CITY LIMITS	IMPERIAL HWY SMART ST (SR-57 TO ROSE) WIDENING EB BY 1 LANE FROM E. OF VALENCIA TO CITY LIMITS. MEDIAN MODIFICS AT INTERSECTS: ASSOCIATED, VALENCIA, AND ROSE. BUS PADS, S.S.	WIDEN EASTBOUND BY 1 LANE	√	√		√						
OR	S	FULLERTON REDEVELOPMENT AGENCY	ORA000148	ORA000148	91	1.2	2.2	SR-91	AT BROOKHURST & EUCLID RAMPS		AT BROOKHURST & EUCLID RAMP IMPROVMENTS. BRKHRST: FROM SINGLE TO DUAL LT-TURN LANES ON EB/WB OFF RAMPS. ECLD: ADD LT-TURN LANE ON WB AND RT-TURN LANE ON EB OFF RAMPS. RECONSTRUCT	ADD 1 LANE TO THE WESTBOUND OFF RAMP AND 2 LANES TO THE EASTBOUND OFF RAMPS	√	√	√							
OR	S	CALTRANS	2M01126	ORA000822	91	3.6	6.1	SR-91 WB	SR-57	I-5	CONNCECT EXISTING AUXILIARY LANE THROUGH INTERCHANGES ON WB SR-91 BETWEEN SR-57 AND I-5 WITH ITS ELEMENTS	Existing lanes 4 to proposed 5 -- continue auxiliary lane Proposed 4 MF & 1 HOV & aux lane in between all interchanges	√							√		
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2M0736		91	6.1	9.2	SR-91 EB	SR-57	SR-55	ADD 1 MF LANE EASTBOUND & IMPROVE INTERCHANGE AT SR-91/SR-55 AND LAKEVIEW AVE (OPERATIONAL, NO INCREASE IN CAPACITY)	Existing Config: 3 lanes									√	
OR	S	CALTRANS	2M01125	ORA000821	91	8.1	9.3	SR-91 WB	NB SR-55	WB SR-91 at Tustin	ADD 1 AUX LANE WESTBOUND	Existing Config: 3 lanes & 1 aux lane	√							√		
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030601	ORA030601	91	9.1	15.6	SR-91	SR-55	SR-241	(SEE BELOW)		√						√			
		ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030601	ORA030601	91	9.1	15.6	SR-91	91/55 Connector	SR-241	ADD MF LANE EAST BOUND	FROM 7 TO 8 LANES		√					√			
		ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030601	ORA030601	91	9.1	15.6	SR-91	SR-241	IMPERIAL HWY	ADD MF LANE WESTBOUND	FROM 7 TO 8 LANES		√					√			
		ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030601	ORA030601	91	9.1	15.6	SR-91	NB SR-55	EB SR-91	AUX LANE	FROM 7 TO 8 LANES		√					√			

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															2008	2009	2010	2012	2014	2020	2030	2035
		ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030601	ORA030601	91	9.1	15.6	SR-91	LAKEVIEW	LAKEVIEW	ADD NEW ON RAMP	FROM 0 TO 2 LANES		√					√			
OR	S	CALTRANS	2T04128		91	12.6	0.0	SR-91	FAIRMONT BLVD		CONSTRUCT NEW PARTIAL OVERCROSSING AT FAIRMONT BLVD TO PROVIDE NORTHERLY ACCESS FOR YORBA LINDA TO/FROM SR-91 EXPRESS LANES; DROP RAMPS ON EAST SIDE OF OVERCROSSING, TO EB AND FROM WB EXPRESS LANES	Existing Config: No Express Lane access							√			
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2T01135		91	15.9	0.0	SR-91	SR-241		HOV/HOT CONNECTOR: NB SR-241 TO EB SR-91, WB SR-91 TO SB SR-241 (1 LANE EACH DIR)									√		
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2M0737		91	15.9	18.9	SR-91	SR-241 / GYPSUM CYN	RIVERSIDE COUNTY LINE	ADD 1 WB MF LANE FROM SR-241 OFF RAMP TO GYPSUM CYN OFF RAMP (FROM 4 WB TO 5 WB) AND ADD 1 AUX LANE EACH DIR FROM SR-241 TO RIVERSIDE COUNTY LINE	Existing Config: 4 to 5 lanes each direction							√			
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA120336	ORA120336	91	15.9	2.9 (RV)	SR-91 EASTBOUND	SR-241	SR-71	SR-91 EASTBOUND LANE ADDITION BETWEEN SR-241 & SR-71 AND SR-91 TO SR-71 ADD ON LANE (IMPROVE NB SR-71 CONNECTOR FROM SR-91 TO STD ONE LANE)	ADD 1 EASTBOUND LANE ADD 1 LANE FROM 2 TO 3	√	√				√				
OR	S	ANAHEIM	ORA000815	ORA000815	91	16.4	0.0	SR-91	GYPSUM CYN RD		SR-91/GYPSUM CANYON ROAD INTERCHANGE. WIDEN GYPSUM CANYON ROAD FROM 2 TO 4 LANES. ADD CLASS II ON-ROAD BIKE LANES, ADD MULTI USE TRAIL AND SIDEWALK ON WEST SIDE OF ROADWAY. THIS WILL REQUIRE MODIFICATION OF EXISTING ENTRANCE RAMP TO GYPSUM. SR-91 CONNECTIONS ARE UNCHANGED, THE EASTBOUND SR-91 EXIT RAMP INTERSECTION WILL BE RECONSTRUCTED AND SIGNALIZED		√						√			
OR	S	CALTRANS	ORA020116	ORA020116	91	17.9	18.9	SR-91	FROM WESTBOUND ROUTE 91	TO SOUTHBOUND ROUTE 241	SR-91 LANE DROP RESTORATION-EXTEND EXIST. AUX LANE FROM W/B SR-91 TO S/B SR-241 FRM 400 MTRS W OF COAL CANYON RD UNDERCROSSING TO 1000 MTRS E OF COAL CNY RD UNDERCROSSING.	EXTEND EXISTING AUXILIARY LANE	√	√			√					
OR	S	BUENA PARK	2M1002		91	0.0	0.0	SR-91	BEACH BL		WIDEN SR-91 EASTBOUND ON-RAMP AT BEACH BL FROM 1 TO 2 LANES, INCLUDING THE ADDITION OF A RAMP METER	WIDEN ON-RAMP FROM 1 TO 2 LANES					√					
OR	S	CALTRANS	1072U	1072U	133	4.1	8.1	LAGUNA CANYON RD	SR-73	SR-405	LAGUNA CANYON RD (SR-73 TO SR-405) IN IRVINE AND LAGUNA BEACH - REALIGN AND WIDEN ROADWAY - WIDEN 2 TO 4 LANES- REALIGN AND DRAINAGE (SEGMENTS 2 & 3)	WIDEN FROM 2 TO 4 LANES	√	√	√							
OR	S	TCA	ORA052 (Part 1 of 2)	ORA052 (Part 1 of 2)	241	0.0	15.9	SR-241 (FTC-S) (2013 PORTION)	ROUTE 5	OSO PKWY	(FTC-S) (I-5 TO OSO PKWY) (15MI) 2 MF EA. DIR BY 2013; AND 1 ADDITIONAL M/F EA. DIR. PLS CLMBNG & AUX LANES AS REQ BY 2030 PER SCAG/TCA MOU 4/05/01.	(2) MIXED FLOW IN EA. DIRECTION FROM 0 TO 4 LANES PLUS CLIMBING AND AUXILIARY LANES BY 2013.	√	√					√			
OR	S	TCA	ORA052 (Part 2 of 2)	ORA052 (Part 2 of 2)	241	0.0	15.9	SR-241 (FTC-S) (2030 PORTION)	ROUTE 5	OSO PKWY	(FTC-S) (I-5 TO OSO PKWY) (15MI) 2 MF EA. DIR BY 2013; AND 1 ADDITIONAL M/F EA. DIR. PLS CLMBNG & AUX LANES AS REQ BY 2030 PER SCAG/TCA MOU 4/05/01.	(1) ADD'L MIXED FLOW EACH DIRECTION BY 2030. FROM 4 TO 6	√	√						√		
OR	S	TCA	ORA051 (Part 1 of 2)	ORA051 (Part 1 of 2)	241	13.8	26.5	SR-241 (FTC-N)	OSO PARKWAY	EASTERN TRANSPORTATION CORRIDOR	(FTC-N) (OSO PKWY TO ETC) (13MI) EXISTING 2 MF IN EA. DIR, 2 ADDITIONAL M/F LANES, PLS CLMBNG & AUX LANS AS REQ BY 2020 PER SCAG/TCA MOU 4/05/01.	ADD 2 MIXED FLOW LANES PLUS CLIMBING AND AUXILIARY LANES; RAMP IMPROVEMENTS IN EAST ORANGE	√	√						√		
OR	S	TCA	ORA051 (Part 2 of 2)	ORA051 (Part 2 of 2)	241	18.1	23.1	SR-241 (FTC-N)	BAKE PKWY	SANTA MARGARITA PKWY	(FTC-N) (OSO PKWY TO ETC) ADD 3RD MF SB FROM BAKE PKWY TO S/O ARROYO TRABUCO BRIDGE AT SANTA MARGARITA PKWY (5 MI). ADD 1 AUX LANE NB (1 MI)	CURRENTLY THE EXISTING 3-LANE SB SEGMENT ENDS AT BAKE PKWY	√	√						√		
OR	S	TCA	ORA050 (Part 1 of 3)	ORA050 (Part 1 of 3)	241	38.8	12.4	SR-241 (241/261/133)	ROUTE 91	ROUTE 5/JAMBOREE	ETC (RTE 241/261/133) (RTE 91 TO I-5/JAMBOREE) EXISTING 2 M/F EA.DIR, 2 ADD'L M/F IN EA. DIR, PLUS CLIMB AND AUX LNS AS REQ, BY 2020 PER SCAG/TCA MOU 4/05/01.	COMPLETE WIDENING TO 4 MIXED FLOW LANES IN EACH DIRECTION PLUS AUXILIARY LANES; ADD INTERCHANGES AT WEIR CYN AND JEFFREY	√	√						√		
OR	S	TCA	ORA050 (Part 2 of 3)	ORA050 (Part 2 of 3)	241	32.3	27.6	ETC (SR-241)	CHAPMAN AVE	SR-133 (EAST LEG)	ETC SR-241 LOMA SEGMENT WIDENING - EXISTS 2 MF EA DIR PLUS CLIMBING LN NB; ADD 3RD MF EA DIR BETWEEN CHAPMAN AVE AND SR-133 (EAST LEG)	ADD 3RD MF EA DIR BETWEEN CHAPMAN AVE AND SR-133 (EAST LEG)	√	√						√		
OR	S	TCA	ORA050 (Part 3 of 3)	ORA050 (Part 3 of 3)	241	35.1	38.1	ETC (SR-241)	S/O SO CAL EDISON WILDLIFE UNDERCROSSING	N/O WINDY RIDGE WILDLIFE UNDERCROSSING	ETC WINDY RIDGE FASTRACK LANES - ADD 3RD MF LN EA DIR THRU THE WINDY RIDGE TOLL PLAZA FROM S/O SO CAL EDISON WILDLIFE UC (PM 35.1) TO N/O WINDY RIDGE WILDLIFE UC (PM 38.1) (3 MI)	ADD 1 MF LN FOR 2.4 MI NB, AND 1.5 MI SB	√	√			√					
OR	S	CALTRANS	2M0708		405	0.0	1.0	I-405 NB	Lake Forest Drive	Irvine Center Drve	ADD 2ND NB TRUCK LANE	Existing Config: 1 truck lane								√		
OR	S	CALTRANS	2M0728		405	0.2	8.7	I-405	I-5	SR-55	ADD 1 MF LANE EACH DIRECTION	Existing Config: 4 to 6 lanes each direction										√

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															2008	2009	2010	2012	2014	2020	2030	2035
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2M04130		405	1.0	1.8	I-405 SB	SR-133	Irvine Center Drve	ADD 2ND AUXILIARY LANE	Existing Config: 4 lanes & 1 aux lane								√		
OR	S	CALTRANS	2M04131		405	4.0	5.6	I-405 NB	Jeffrey	Culver	ADD AUXILIARY LANE	Existing Config: 4 lanes								√		
OR	S	IRVINE	ORA990445	ORA990445	405	4.0	0.0	I-405	AT JEFFREY/I-405 INTERCHANGE		JEFFREY/I-405 INTERCHANGE. WIDEN FROM 4 TO 6 LANES, WIDEN RAMP (LT TURN LANE), MODIFY SIGNAL, AND IMPROVE RAMP AT 1000' SOUTH OF INTERCHANGETO 1000' NORTH OF INTERCHANGE.	WIDEN ON AND OFF RAMPS TO INCLUDE LEFT TURN LANE	√	√	√							
OR	S	CALTRANS	2H01148		405	7.4	0.0	I-405	at Von Karman		HOV DROP RAMP	Existing Config: no drop ramp								√		
OR	S	CALTRANS	6951	6951	405	7.7	8.7	I-405	405/55 INTERCHANGE		405/55 INTERCHANGE SOUTH TRANSITWAY MOS1 EXISTING 4 MIXED 1 HOV ON SR55 AND I-405 EXIST IS 5 MF AND 1 HOV. ADD HOV DIRECT TRANSITWAY FROM SR55 TO I-405	MOS 1 - ADD DIRECT TRANSITYWAY FROM ROUTE 55 TO ROUTE 405	√	√	√							
OR	S	CALTRANS	2M01129		405			I-405	Bristol on-ramp		AT I-405 SB/SR-55 NB, DELETE LEFT TURN ACCESS FROM NB BRISTOL TO SB I-405. PROVIDE RIGHT TURN ON-RAMP FROM NB BRISTOL TO SB I-405 VIA NEW BRAID THAT ALSO PROVIDES DIRECT ACCESS TO NB SR-55	Existing Config: left turn access from Bristol NB to I-405 SB; 5 lanes & 1 aux lane to 55 NB IC										√
OR	S	COSTA MESA	3090	3090	405	8.7	10.1	I-405	SR-55		IN CITY OF COSTA MESA (MOS 2&3) N/B I-405/BRISTOL OFF-RAMP AND S/B RTE-55 TO N/B I-405 (NORTH TRNSTWY) WIDEN NB OFF RAMP BRAID WITH CONNECTOR FROM 6 TO 8 LANES		√	√	√							
OR	S	COSTA MESA	720	720	405	9.7	12.5	I-405	SR-55		COSTA MESA (BRISTOL STREET TO EUCLID) I-405 WIDENING AND RAMP IMPROVMENTS INCLUDING THE I-405/SR-73 INTERCHANGE IN CONJUNCTION WITH ORA55073 (HYLAND)		√	√	√							
OR	S	CALTRANS	2H0701		405	9.9	0.0	I-405	Bear		HOV DROP RAMP	Existing Config: no drop ramp								√		
OR	S	CALTRANS	86	86	405	9.9	10.0	I-405	BEAR STREET OVERCROSSING		AT BEAR ST OVERCROSSING IN COSTA MESA, REMOVE AND RECONSTRUCT OVERCROSSING FROM 4 TO 6 LANES. WIDEN BRIDGE STRUCTURE OVER FREEWAY ONLY.	WIDEN FROM 4 TO 6 LANES	√	√	√							
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030605	ORA030605	405	10.3	24.0	I-405			FROM SR-73 TO I-605 ADD 1 MF LANE EACH DIR AND PROVIDE ADDITIONAL CAPITAL IMPROVEMENTS, INCLUDING PROJECTS ORA045, ORA151, ORA120310	**(ORA045)** BOLSA AVE (CHESTNUT TO GOLDENWEST) WIDEN BOLSA AVE BRIDGE FROM 4 TO 6 LANES **(ORA151)** BOLSA CHICA RD (DUNCANNON TO RTE 405) WIDEN FROM 4 TO 6 LANES. **(ORA120310)** GOLDENWEST BRIDGE WIDENING OVER I-405, ADD 1 SB LN (5 TO 6 LNS) FROM BOLSA TO SOWELL	√							√		
OR	S	COSTA MESA	ORA000111	ORA000111	405	10.8	11.5	I-405	SUSAN STREET		NEW OFF-RAMP ON I-405 AT SUSAN STREET @ S. COAST DRIVE (REPLACED W/ORA000186, ORA000110, ORA000182, ORA000191. (FROM 0 TO 1 LANE)	ADD NEW SLIP RAMP OFF HARBOR BLVD OFF RAMP ONTO SUSAN STREET	√	√	√							
OR	S	COSTA MESA	ORA020103	ORA020103	405	11.8	11.8	I-405	FAIRVIEW ROAD		COSTA MESA (FAIRVIEW RD @ I-405 INTERCHANGE) ADD 3RD S/B LEFT-TURN LANE AND 3RD S/B I-405 ONRAMP LANE.	ADD 3RD SOUTHBOUND I-405 ON RAMP LANE	√	√	√							
OR	S	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA020110	ORA020110	405	15.2	16.5	I-405	MAGNOLIA	BEACH BLVD.	I-405 NORTHBOUND AUXILIARY LANE (MAGNOLIA TO BEACH BLVD) ADD ONE AUX. LANE N/B & S/B -- FROM 5 TO 6 LANES IN EACH DIRECTION.	ADD ONE AUXILIARY LANE NORTHBOUND AND SOUTHBOUND FROM 5 TO 6 LANES IN EACH DIRECTION	√	√	√							
OR	S	WESTMINSTER	ORA100507	ORA100507	405	16.5	0.0	I-405	AT BEACH		CONSTRUCT FOURTH NB THROUGH LANE ON BEACH BLVD AT THE I-405 INTERCHANGE AND REMOVE OFF-RAMP ON I-405 AT BEACH (NORTH-EAST CORNER OF BEACH/EDINGER)	REMOVE OFF-RAMP	√	√				√				
OR	S	SEAL BEACH	ORA55094	ORA55094	405	22.6	23.3	SEAL BEACH BL	BEVERLY MANOR WAY	OLD RANCH PARKWAY	SEAL BEACH BLVD OVERPASS IN THE CITY OF SEAL BEACH WIDENING FROM 4 TO 6 LANES (ADD 1NB & 1SB)	WIDEN OVERPASS IN THE CITY OF SEAL BEACH FROM 4 TO 6 LANES	√	√	√							
OR	S	SEAL BEACH	2M1001	ORA990928	405	0.0	0.0	I-405	SEAL BEACH BL		ADD A NB THRU LANE AT THE SEAL BEACH BLVD/I-405 SB OFF-RAMP INTERSECTION, AND WIDEN THE SB OFF-RAMP	ADD NB THRU LANE AT SEAL BEACH BLVD/I-405 SB OFF-RAMP INTERSECTION						√				
OR	S	CALTRANS	5242	5242	605	0.0	1.6	I-605	ROUTE 405	LOS ANGELES COUNTY LINE	I-405 TO LA CO LINE - ADD ONE HOV LANE IN EACH DIRECTION. THIS PROJECT WILL COMPLETE THE I-605 INTERCOUNTY GAP IN THE HOV SYSTEM IN SO. CALIF. (ITIP PROJECT)	ADD 1 HOV LANE IN EACH DIRECTION	√	√	√							
OR	S	CALTRANS	2M0719		605	1.4	0.0	I-605	Katella on-ramp		IMPROVE INTERCHANGE	Existing Config: 1 to 2 lane NB on-ramp, 1 lane for other ramps										√
OR	L	ANAHEIM	ORA120501	ORA120501	0	0.0	0.0	BROOKHURST ST	SOUTH OF BALL ROAD	NORTH OF KATELLA AVENUE	ANAHEIM - BROOKHURST STREET WIDENING (FROM 4 TO 6 LANES; S/O BALL TO N/O KATELLA)	WIDEN FROM 4 TO 6 LANES	√						√			
OR	L	ANAHEIM	ORA000110	ORA000110	0	0.0	0.0	KATELLA AVE	HUMOR	JEAN	KATELLA AVE SMART ST (HUMOR TO JEAN) WIDEN FRM 4 TO 6 LANES	WIDEN FROM 4 TO 6 LANES	√	√			√					
OR	L	ANAHEIM	ORA55014	ORA55014	0	0.0	0.0	TUSTIN AVE	LA PALMA	ROUTE 91	TUSTIN AVE (LA PALMA TO SR-91) WIDEN FROM 4 TO 6 LANES (1500' TOTAL)	WIDEN FROM 4 TO 6 LANES	√	√	√							
OR	L	BUENA PARK	ORA55024	ORA55024	0	0.0	0.0	VALLEY VIEW	LINCOLN	ARTESIA	VALLEY VIEW ST (LINCOLN TO ARTESIA) WIDEN FROM 6 LANES TO 8 LANES.	WIDEN FROM 6 TO 8 LANES	√	√			√					
OR	L	COSTA MESA	ORA990410	ORA990410	0	0.0	0.0	HARBOR BLVD	AT GISLER AVENEUE INTERSECTION		HARBOR BLVD @ GISLER AVE. INTERSECTION CHANNELIZATION. ADD 5TH NB LANE ON HARBOR BLVD. AND RT LANE ON GISLER TO NB HARBOR, 2ND SB I-405 SLIP ONRAMP LANE	ADD 2ND SOUTHBOUND ROUTE 405 SLIP ON RAMP LANE	√	√			√					

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															2008	2009	2010	2012	2014	2020	2030	2035
OR	L	COSTA MESA	ORA120502	ORA120502	0	0.0	0.0	NEWPORT BLVD	19TH	HARBOR	COSTA MESA NEWPORT BLVD WIDENING - 1 LN EA DIR (FROM 19TH TO HARBOR; FRM 6 TO 8 LNS)	WIDEN FROM 6 TO 8 LANES	√	√		√						
OR	L	CYPRESS	ORA990607	ORA990607	0	0.0	0.0	KATELLA AVE	VALLEY VIEW STREET		KATELLA AT VALLEY VIEW ST. INSTALL 4TH EB LANE ON KATELLA AVE AT VALLEYVIEW. SOUTHSIDE OF KATELLA WEST OF VALLEYVIEW FOR .25 MILES.	ADD 4TH EASTBOUND LANE SOUTHSIDE OF KATELLA WEST OF VALLEY VIEW FOR .25 MILES	√	√	√							
OR	L	GARDEN GROVE	ORA55031	ORA55031	0	0.0	0.0	HARBOR BLVD	ROUTE 91	ROUTE 405	HARBOR BLVD SMART STREET (SR-91 TO I-405) WIDENING FROM 4 TO 6 LANES AND INTERSECTION IMPROVEMENTS.	WIDEN FROM 4 TO 6 LANES	√	√	√							
OR	L	HUNTINGTON BEACH	ORA120522	ORA120522	0	0.0	0.0	ATLANTA	Huntington	DELEWARE	HUNTINGTON BEACH - ATLANTA AVE WIDENING (FRM HUNTINGTON TO DELAWARE; FRM 2 TO 4 LNS)	WIDEN FROM 2 TO 4 LANES	√				√					
OR	L	IRVINE	ORA000169	ORA000169	0	0.0	0.0	CULVER DR	CAMPUS DRIVE	BONITA CANYON	CULVER DR (CAMPUS DR TO BONITA CYN) WIDENING FROM 2 LANE UNDIVIDED TO 4 LANE DIVDED FACILITY AND REALIGN.	WIDEN FROM 2 LANE UNDIVIDED TO 4 LANE DIVIDED FACILITY	√	√				√				
OR	L	IRVINE	ORA120512	ORA120512	0	0.0	0.0	CULVER DR	I-5	TRUBUCO	IRVINE - CULVER DR @ I-5/TRABUCO (ADD 5TH LANE ON I-5 SB OFFRAMP; 3RD NB THRU LN; 2ND WB RT TRN LN	ADD 5TH LANE ON I-5 SB OFFRAMP	√	√		√						
OR	L	IRVINE	ORA48	ORA48	0	0.0	0.0	JEFFREY RD	IRVINE CENTER DRVIE	WALNUT	JEFFERY RD (IRVINE CENTER DR TO WALNUT) RAILROAD GRADE SEPARATION. FROM 4 TO 6 LANES.	WIDEN FROM 4 TO 6 LANES	√	√				√				
OR	L	IRVINE	ORA110602	ORA110602	0	0.0	0.0	LAGUNA CANYON RD			WIDENING OF LAGUNA CANYON / I-405 OVERCROSSING FROM 2 TO 4 LANES		√	√					√			
OR	L	IRVINE	ORA112	ORA112	0	0.0	0.0	MOULTON ST	HARVARD	LAKE FOREST	MOULTON SMART STREET (HARVARD TO LAKE FOREST) WIDEN 4 TO 6 LANES	WIDEN FROM 4 TO 6 LANES	√	√				√				
OR	L	IRVINE	ORA000118	ORA000118	0	0.0	0.0	SAND CANYON RD	BURT ROAD	LAGUNA CANYON OAK CANYON	SAND CYN RD @ SCRRA TRACKS (BURT RD TO LAGUNA CANYON/OAK CANYON) - RAILROAD GRADE SEPARATION. WIDENS FROM 4 TO 6 LANES	WIDEN FROM 4 TO 6 LANES	√	√					√			
OR	L	IRVINE	ORA120514	ORA120514	0	0.0	0.0	TRABUCO RD			IRVINE - TRABUCO RD @ I-133 (ADD NEW ON-RAMPS AND OFF RAMPS AT TRABUCO & I-133)		√	√						√		
OR	L	LA HABRA	ORA120515	ORA120515	0	0.0	0.0	LAMBERT RD	EUCLID	CYPRESS	LA HABRA - LAMBERT RD WIDENING (FRM EUCLID TO CYPRESS ST; FRM 4 TO 6 LNS)	WIDEN FROM 4 TO 6 LANES	√	√	√							
OR	L	LAGUNA HILLS	ORA000119	ORA000119	0	0.0	0.0	ALICIA PKWY	PASEO ALICIA	ROUTE 5 SOUTHBOUND RAMP	ALICIA PKWY @ I-5. ADD 4TH EB LANE FROM PASEO DE ALICIA TO I-5 SB RAMP	ADD 4TH EASTBOUND LANE SOUTHSIDE OF KATELLA WEST OF VALLEY VIEW FOR .25 MILES	√	√	√							
OR	L	LAGUNA HILLS	ORA000124	ORA000124	0	0.0	0.0	MOULTON PKWY	LAKE FOREST	EL PACIFICO	MOULTON PKWY (LAKE FOREST TO EL PACIFICO) WIDEN FRM 8 TO 9 LNS. N/B FRM 4 TO 4 AND S/B FRM 4 TO 5. WIDEN INTERSECTIONS AND LANDSCAPE.	WIDEN SOUTHBOUND FROM 4 TO 5 LANES	√	√		√						
OR	L	LAGUNA HILLS	ORA000125	ORA000125	0	0.0	0.0	MOULTON PKWY	SANTA MARIA	EL PACIFICO	MOULTON PKWY (SANTA MARIA TO EL PACIFICO) WIDEN FRM 7 TO 9 LANES (N/B 3 TO 4 AND S/B 4 TO 5), WIDEN INTERSECTIONS, ADD SIDEWALK AND LANDSCAPING.	1. WIDEN NORTHBOUND FROM 3 TO 4 LANES. 2. WIDEN SOUTHBOUND FROM 4 TO 5 LANES.	√	√				√				
OR	L	LAGUNA HILLS	ORA000127	ORA000127	0	0.0	0.0	PASEO DE VALENCIA	LAGUNA HILLS DRIVE	EL TORO ROAD	PASEO DE VALENCIA (LAGUNA HILLS DR TO EL TORO RD) WIDEN FROM 4 TO 6 LANES	WIDEN FROM 4 TO 6 LANES	√	√						√		
OR	L	LAGUNA HILLS	ORA000131	ORA000131	0	0.0	0.0	RIDGE ROUTE DR	FROM WEST SIDE OF ROUTE 5	EAST SIDE OF ROUTE 5	CONSRUCT NEW OVERPASS ON RIDGE ROUTE DR AT I-5 FROM WEST SIDE OF I-5 TO EAST SIDE OF I-5 ON RIDGE ROUTE (FROM 0 TO 4 LANES).	CONSTRUCT NEW OVERPASS FROM 0 TO 4 LANES	√				√					
OR	L	LAGUNA NIGUEL	ORA120316	ORA120316	0	0.0	0.0	CROWN VALLEY PKWY	CABOT	I-5 ON RAMP	LAGUNA NIGUEL - CROWN VALLEY PKWY WIDENING (WIDEN EB FROM CABOT TO I-5 ON RAMP, FROM 4 TO 5 LANES; ADD DED RT TRN LN FOR SB I-5 ON RAMP & DED RT TRN LN FOR NB ON RAMP)	WIDEN EB FROM CABOT TO I-5 ON RAMP FROM 4 TO 5 LANES.	√					√				
OR	L	LAGUNA NIGUEL	ORA000132	ORA000132	0	0.0	0.0	GOLDEN LANTERN			GOLDEN LANTERN SMART STREET (ALOMA TO SARDINA) WIDEN FROM 4 TO 6 LANES.		√	√	√							
OR	L	LAKE FOREST	ORA040604	ORA040604	0	0.0	0.0	EL TORO RD	1. ROUTE 5 2.ROCKFIELD	1. ROCKFIELD 2.JUTEWOOD / CORNELIUS	EL TORO RD IMPROVEMENTS AND ASSOC. INTERSECTIONS; WIDEN FROM 6 TO 9 LANES (4 EACH DIR PLUS TURN LANE INTERSPERSED) I-5 TO ROCKFIELD, AND 6 TO 8 LANES (4 EACH DIR) ROCKFIELD TO JUTEWOOD/CORNELIUS.	1. WIDEN FROM 6 TO 9 LANES WESTBOUND 2. WIDEN FROM 6 TO 8 LANES (4 EACH DIRECTION)	√	√	√							
OR	L	LAKE FOREST	2A1001	ORA990918	0	0.0	0.0	RANCHO PARKWAY	HERMANA CIR	PORTOLA PKWY	RANCHO PARKWAY EXTENSION FROM ITS EXISTING TERMINUS AT HERMANA CIRCLE TO PORTOLA PARKWAY	EXTENSION IS APPROXIMATELY 1700 FEET IN LENGTH. RANCHO PARKWAY WILL BE A 4-LANE DIVIDED ROADWAY WITHIN A 100-FOOT PUBLIC RIGHT-OF-WAY DESIGNED TO MAJOR ARTERIAL HIGHWAY STANDARDS. THE EXTENSION WILL TERMINATE AT THE EXISTING PORTOLA PARKWAY/ROCKY RD INTERSECTION (ROCKY RD WILL NO LONGER EXIST).							√			
OR	L	LAKE FOREST	2A1002	ORA990919	0	0.0	0.0	ALTON PARKWAY	COMMERCECENTRE DR	TOWNE CENTRE DR	EXTEND ALTON PARKWAY AS A FOUR-LANE DIVIDED HIGHWAY BETWEEN COMMERCENTRE DRIVE AND TOWNE CENTRE DRIVE	LENGTH IS APPROXIMATELY 4,800 FEET							√			
OR	L	MISSION VIEJO	ORA010400	ORA010400	0	0.0	0.0	ALICIA PKWY	CHARLINDA DRIVE	MUIRLANDS BLVD	ALICIA PARKWAY (CHARLINDA DR TO MUIRLANDS BLVD) WIDEN FROM 6 TO 7 LANES NORTHBOUND	WIDEN FROM 6 TO 7 LANES NORTHBOUND	√	√	√							

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OR	L	MISSION VIEJO	ORA020115	ORA020115	0	0.0	0.0	CABOT ROAD BRIDGE OVER METROLINK TRACKS	CABOT ROAD	CAMINO CAPISTRANO	CABOT ROAD BRIDGE TO CAMINO CAPISTRANO - PROVIDE ALT ACCESS TO METROLINK	CONNECTS THE STUB END OF CAMINO CAPISTRANO TO CABOT ROAD	√					√				
OR	L	MISSION VIEJO	ORA000163	ORA000163	0	0.0	0.0	CROWN VALLEY PKWY	PUERTA REAL	CITY LIMITS (NEAR JARDINES)	CROWN VALLEY PARKWAY (PUERTA REAL TO CITY LIMITS, NEAR JARDINES) WIDENING FROM 6 LANE DIVIDED TO 8 LANE DIVIDED.	WIDEN FROM 6 TO 8 LANE	√	√				√				
OR	L	MISSION VIEJO	ORA000173	ORA000173	0	0.0	0.0	LA PAZ RD	MUILANDS BLVD.	CHRISANTA DRIVE	LA PAZ RD (MUIRLANDS/I-5 TO CHRISANTA DR) WIDENING FROM 4 TO 6 LANES.	WIDEN FROM 4 TO 6 LANES	√	√					√			
OR	L	NEWPORT BEACH	ORA040605	ORA040605	0	0.0	0.0	JAMBOREE RD	BAYVIEW WAY	MACARTHUR BLVD	NEWPORT BEACH - JAMBOREE RD WIDENING (BETWEEN BAYVIEW WAY & MACARTHUR BLVD) FROM 6 TO 8 LANES	WIDEN FROM 6 TO 8 LANES	√	√				√				
OR	L	ORANGE COUNTY	ORA120505	ORA120505	0	0.0	0.0	ALTON PKWY	IRVINE BLVD	COMMERCE CENTER DR.	ORANGE COUNTY - ALTON PARKWAY EXTENSION (IRVINE) (IRVINE BLVD TO CMMERCENTER DR; FRM 0 TO 6 LNS)	WIDEN FROM 0 TO 6 LANES	√				√					
OR	L	ORANGE COUNTY	2A0803	ORA082406	0	0.0	0.0	ANTONIO PKWY	LADERA PLANNED COMMUNITY	ORTEGA HWY	WIDEN FROM 4 TO 6 LANES, INCL. WIDEN ANTONIO BRIDGE BY 1 LN EA DIR	The northerly limit of this project begins at 2,000 ft s/o the intersection of Antonio Pkwy and Covenant Hills Dr to join the existing 6 lane configuration of Antonio Pkwy in Ladera Ranch.								√		
OR	L	ORANGE COUNTY	2A0804	ORA082401	0	0.0	0.0	COW CAMP RD	ANTONIO PKWY	ORTEGA HWY	MAJOR ARTERIAL FROM ANTONIO TO FTC; PRIMARY ARTERIAL FROM FTC TO ORTEGA HWY	Cow Camp Rd is approx 4 miles from Antonio Pkwy (west terminus) to Ortega Hwy (east terminus). The westerly segment of approx 1.5 miles to and including the proposed overcrossing with the planned SR-241 is a planned Major Arterial (6 lane divided hwy). The easterly segment (remaining portion) is a planned Primary Arterial (4 lane divided hwy).								√		
OR	L	ORANGE COUNTY	ORA120504	ORA120504	0	0.0	0.0	LA PATA AVE	ORTEGA HWY	RD TERMINUS	ORANGE COUNTY - LA PATA AVENUE WIDENING & GAP CLOSURE (WIDEN FROM 3 TO 5 LNS (2,700 FT S/O ORTEGA HWY TO RD TERMINUS); GAP CLOSURE ADD 4 LNS (EXISTING LA PATA TERMINUS TO CALLE SALUDA); EXTENSION - ADD 4 LANES (EXISTING CAMINO DEL RIO TERMINUS TO LA PATA)		√						√			
OR	L	ORANGE COUNTY	2A0801	ORA082405	0	0.0	0.0	OSO PKWY	BLASCOS	I-5	WIDEN FROM 6 TO 8 LANES									√		
OR	L	ORANGE COUNTY	2A0802	ORA080914	0	0.0	0.0	KATELLA AVE	JEAN	STANTON CHANNEL	WIDEN FROM 4 TO 6 LANES							√				
OR	L	ORANGE COUNTY / EMA	ORA000191	ORA000191	0	0.0	0.0	KATELLA AVE	100' EAST OF JEAN	MAGNOLIA	KATELLA AVE SMART STREET (100' E/O JEAN TO MAGNOLIA) WIDEN FROM 4 TO 6 LANES. STRIP AND MODIFY CURB LINES AT INTERSECTION. SIGNAL COORDINATION.	WIDEN FROM 4 TO 6 LANES	√	√	√							
OR	L	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2A0705		0	0.0	0.0	COUNTYWIDE SIGNAL SYNCHRONIZATION			SIGNAL SYNCHRONIZATION PROGRAM - SYNCHRONIZE SIGNALS ACROSS JURISDICTIONS AND SMART STREETS											√
OR	L	ORANGE, CITY OF	ORA000162	ORA000162	0	0.0	0.0	CHAPMAN AVE	TUSTIN	ROUTE 55	CHAPMAN AVE (TUSTIN TO SR-55) WIDEN FROM 4 TO 6 LANES. ADD 2 DEDIC. RT TURN LANES (1@ WB CHAPMAN & 1@NB TUSTIN) PLUS, 2 BUS TURNOUTS (1@NB TUSTIN AND 1@WB CHAPMAN INTERSECTION.)	WIDEN FROM 4 TO 6 LANES	√	√				√				
OR	L	ORANGE, CITY OF	ORA120527	ORA120527	0	0.0	0.0	MAIN ST	CULVER DRIVE	260' N/O PALMYRA	ORANGE - MAIN ST (WIDEN FRM CULVER TO 260' N/O PALMYRA; FRM 4 TO 6 LNS)	WIDEN FROM 4 TO 6 LANES	√					√				
OR	L	PLACENTIA	ORA120524	ORA120524	0	0.0	0.0	ORANGETHORPE AVE	MELROSE AVE	EAST CITY LIMITS	PLACENTIA - ORANGETHORPE AVE WIDENING (FRM MELROSE AVE TO ECL; FRM 4 TO 6 LNS)	WIDEN FROM 4 TO 6 LANES	√						√			
OR	L	PLACENTIA	ORA120523	ORA120523	0	0.0	0.0	RITCHFIELD AVE	ORANGETHORPE	SOUTH CITY LIMITS	PLACENTIA - RITCHFIELD AVE - ATWOOD CHANNEL BRIDGE WIDENING FROM 3 TO 4 LANES	WIDEN FROM 3 TO 4 LANES	√	√			√					
OR	L	SAN JUAN CAPISTRANO	ORA120309	ORA120309	0	0.0	0.0	LA NOVIA BRIDGE	SAN JUAN CREEK	CALLE ARROYO	SAN JUAN CAPISTRANO - LA NOVIA BRIDGE WIDENING, SAN JUAN CREEK TO CALLE ARROYO, FROM 2 - 4 LANES	WIDEN FROM 2 TO 4 LANES	√				√					
OR	L	SANTA ANA	ORA125	ORA125	0	0.0	0.0	BRISTOL ST	WARNER	MEMORY LANES	BRISTOL ST (WARNER TO MEMORY LANE) WIDEN FROM 4 TO 6 LANES (IMPV AT BRISTOL/WARNER (ADD NB/EB/SB THRU LNS; WB RT TRN LN) AND BRISTOL/FIRST (ADD NB/SB THRU LNS; SB LFT/RT/TRN LNS	WIDEN FROM 4 TO 6 LANES	√	√				√				
OR	L	SANTA ANA	ORA120521	ORA120521	0	0.0	0.0	FIRST ST	SUSAN STREET	FAIRVIEW	SANTA ANA - FIRST STREET WIDENING (FRM SUSAN TO FAIRVIEW; FRM 4 TO 6 LNS)	WIDEN FROM 4 TO 6 LANES	√	√					√			
OR	L	SANTA ANA	ORA120520	ORA120520	0	0.0	0.0	GRAND AVE	1ST	4TH	SANTA ANA - GRAND AVENUE WIDENING (FRM 1ST TO 4TH; FRM 2 TO 3 LNS EACH DIR)	WIDEN FROM 2 TO 3 LANES IN EACH DIRECTION	√	√				√				
OR	L	SANTA ANA	ORA120518	ORA120518	0	0.0	0.0	MACARTHUR BLVD	NORTHBOUND ON RAMP FROM EB MACARTHUR	SR-55	SANTA ANTA - MACARUTHUR BLVD WIDENING (WIDEN NB ONRAMP (FROM EB MACARTHUR) TO SR-55 BY ADDING 1 LN)	ADD 1 LANE	√	√								
OR	L	SANTA ANA	ORA120519	ORA120519	0	0.0	0.0	MACARTHUR BLVD	SOUTHBOUND ON RAMP FROM EB MACARTHUR	SR-55	SANTA ANA - MACARTHUR BLVD WIDENING (WIDEN SB ONRAMP (FRM EB MACARTHUR) TO SR-55 BY ADDING 1LN)	ADD 1 LANE	√				√					
OR	L	SANTA ANA	ORA000171	ORA000171	0	0.0	0.0	MEMORY LANE BRIDGE	PACIFIC AVENUE	CITY DRIVE	MEMORY LANE BRIDGE (PACIFIC AVE TO CITY DRIVE) WIDENING FROM 4 TO 6 LANES.	WIDEN FROM 4 TO 6 LANES	√	√		√						

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OR	L	SANTA ANA	1430	1430	0	0.0	0.0	MOULTON ST	RICHEY	REDHILL	MOULTON SMART STREET (RICHEY TO REDHILL) RESTRIPE TO 6 LNS, ADD BIKE LANES, & CONSTRUCT RAISED MEDIAN. ADD RT LANE FOR ON/OFF RAMP @ SR-55. WIDEN INTERSECTION	RESTRIPE FROM 4 TO 6 LANES - Note: Moulton turns into Edinger in Santa Ana	√	√		√						
OR	L	SEAL BEACH	2A1003	ORA990912	0	0.0	0.0	SEAL BEACH BL	OLD RANCH PKWY	ST. CLOUD	SEAL BEACH BLVD WIDENING FROM OLD RANCH PKWY TO ST. CLOUD FROM 4 TO 6 LANES	WIDEN FROM 4 TO 6 LANES						√				
OR	L	STANTON	ORA000186	ORA000186	0	0.0	0.0	KATELLA AVE	MAGNOLIA	BEACH	KATELLA AVE SMART STREET (MAGNOLIA TO BEACH AND BEACH TO KNOTT) WIDEN FROM 4 TO 6 LANES, BUS TURNOUTS, INTERSECTION WIDENING, CURBLINE/MEDIAN MODIFICATIONS, AND RAISED MEDIANS.	WIDEN FROM 4 TO 6 LANES	√	√		√						
OR	L	TUSTIN	ORA55244	ORA55244	0	0.0	0.0	TUSTIN RANCH RD	WALNUT AVENUE	VALENCIA AVE	TUSTIN RANCH RD (WALNUT AVE TO VALENCIA AVE) NEW 6 LANE MAJOR ARTERIAL WITH NEW GRADE SEPARATION AT OCTA/SCRRA RAILWAY AND EDINGER AVE.	NEW 6 LANE MAJOR ARTERIAL	√	√				√				
OR	L	YORBA LINDA	ORA040606	ORA040606	0	0.0	0.0	WEIR CANYON RD	ROUTE 91	LA PALMA	YORBA LINDA - WEIR CANYON RD WIDENING ADD 1 NB LANE (FROM SR91 TO LA PALMA)	WIDEN ADD 1 NORTHOUND LANE	√	√		√						
OR	T	ANAHEIM	2TR0701		0			ARTIC-PLATINUM TRIANGLE-ANAHEIM RESORT CONNECTOR	ARTIC	ANAHEIM RESORT DISTRICT	ELEVATED FIXED-GUIDEWAY SYSTEM CONNECTING THE ANAHEIM REGIONAL TRANSPORTATION INTERMODAL CENTER (ARTIC), THE PLATINUM TRIANGLE, AND THE ANAHEIM RESORT	ONE PROPOSED ALIGNMENT BEGINS AT THE PROPOSED ARTIC FACILITY, TRAVERSES THE PARKING LOT OF ANGEL STADIUM, PROCEEDS WEST ALONG EAST GENE AUTRY WAY AND THEN NORTH ON HASTER STREET AND ANAHEIM BOULEVARD. THE ALIGNMENT THEN TRAVELS WEST ON DISNEY WAY AND TURNS SOUTH ON HARBOR BOULEVARD TO A WESTERN TERMINUS NORTH OF ORANGEWOOD AVENUE. POSSIBLE STATION LOCATIONS INCLUDE: 1. EASTERN TERMINUS STATION AT THE PROPOSED ARTIC FACILITY 2. GENE AUTRY WAY (AT THE SOUTH STATE COLLEGE BOULEVARD INTERSECTION) 3. HASTER STREET (BETWEEN KATELLA AVENUE AND CITRUS DRIVE) 4. DISNEY WAY (BETWEEN CLEMENTINE STREET AND HARBOR BOULEVARD) – THIS LOCATION WOULD HAVE A TRANSIT CENTER/STATION CONFIGURATION TO INCLUDE BUS BAYS, PASSENGER DROP OFF AND PARKING 5. HARBOR BOULEVARD (AT THE CONVENTION WAY INTERSECTION)							√			
OR	T	BUENA PARK	ORA55286	ORA55286	0	0.0	0.0	BUENA PARK METROLINK STATION			COMMUTER RAIL STATION (DALE STREET AND MALVERN) IN BUENA PARK. CONSTRUCT NEW RAIL STATION. 308 PARKING SPACES.		√	√	√							
OR	T	FULLERTON	ORA020113	ORA020113	0	0.0	0.0	FULLERTON TRAIN STATION			FULLERTON TRAIN STATION - PARKING STRUCTURE, PHASE I AND II. TOTAL OF 500 SPACES.		√	√				√				
OR	T	SANTA ANA	2TR1001		0			SANTA ANA AND GARDEN GROVE FIXED GUIDEWAY	SANTA ANA REGIONAL TRANSPORTATION CENTER (SARTC)	HARBOR BLVD/ WESTMINSTER AVE	SANTA ANA AND GARDEN GROVE FIXED GUIDEWAY	ONE PROPOSED ROUTE WOULD START AT SARTC, AND WOULD GENERALLY TRAVEL ALONG SANTA ANA BOULEVARD AND 5TH STREET BEFORE CONNECTING TO THE PE ROW AT RAITT STREET AND CONCLUDING AT HARBOR BOULEVARD. STOPS MAY BE LOCATED AT SARTC, MAIN, BRISTOL, FLOWER, FAIRVIEW, AND HARBOR.							√			
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2L207		0	0.0	0.0	EXPRESS BUS	Countywide (inter-county and intra-county)		RIVERSIDE TO FULLERTON (11), RIVERSIDE TO ANAHEIM (11), RIVERSIDE/CORONA TO IRVINE (11), SAN CLEMENTE TO LAGUNA HILLS (10), SAN CLEMENTE TO SOUTH COAST METRO (12), LONG BEACH TO SOUTH COAST METRO (12), RANCHO SANTA MARGARITA TO IRVINE (12), LONG BEACH TO ORANGE (12), AND OTHERS									√	
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA120531	ORA120531	0	0.0	0.0	BRT: HARBOR BL	FULLERTON	COSTA MESA	BUS RAPID TRANIST (HARBOR BOULEVARD BRT) - 19MILE FIXED RT BRT BETWEEN FULLERTON AND COSTA MESA; INCLUDES STRUCTURES AND ROLLING STOCK. RTE#543 10 MIN PK HEADWAY, 12 MIN OFFPK	Per OCTA the route number for this project is going to 543 and service is planned to operate every 10 min during morning and evening commute and every 12 minutes at other times	√					√				
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA120532	ORA120532	0	0.0	0.0	BRT: WESTMINSTER/17TH	SANTA ANA	LONG BEACH	BUS RAPID TRANIST (WESTMINSTER/17TH BRT) - 22MILE FIXED RT BRT BETWEEN SANTA ANA AND LONG BEACH; INCLUDES STRUCTURES AND ROLLING STOCK. RTE#560 10 MIN PK HEADWAY, 20 MIN OFFPK	Per OCTA the route number for this project is 560 and will operate 10 min during morning and evening commute and every 20 minutes at other times	√					√				
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA000104	ORA000104	0	0.0	0.0	IRVINE TRANSPORTATION CENTER			TRANSITWAY IMPROVEMENTS AT IRVINE TRANSPORTATION CENTER; BUILD 900 SPACE PARKING STRUCTURE, INCLUDING ENVIRONMENTAL, DESIGN AND CONSTRUCTION.		√	√	√							

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OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030612	ORA030612	0	0.0	0.0	PLACENTIA TRANSIT STATION			PLACENTIA TRANSIT STATION - E OF SR-57 AND MELROSE ST AND N OF CROWTHER AVE. CONSTRUCT NEW METROLINK STATION AND RAIL SIDEING		√	√					√			
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA110501	ORA110501	0	0.0	0.0	28MI BRT			BUS RAPID TRANIST - 28MI FIXED BRT FRM BREA MALL TO IRVINE TRANS CNTR. INCLUDES STRUCTURES, ROLLING STOCK, AND FEEDER SVC & IBC SHUTTLE- CNG SHUTTLES FROM JWA TO IBC.		√				√					
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2TR01209C		0	0.0	0.0	KATELLA BRT			BUS RAPID TRANSIT (KATELLA BRT) - FIXED RT BRT BETWEEN ORANGE TRANSPORTATION CENTER AND LONG BEACH/BLUE LINE								√			
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2TR04209D		0	0.0	0.0	EDINGER BRT			BUS RAPID TRANSIT (EDINGER BRT) - FIXED RT BRT BETWEEN TUSTIN AND HUNTINGTON BEACH									√		
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2TR04209E		0	0.0	0.0	BEACH BRT			BUS RAPID TRANSIT (BEACH BLVD BRT) - FIXED RT BRT BETWEEN HUNTINGTON BEACH AND BUENA PARK							√				
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2TR04209F		0	0.0	0.0	LA PALMA BRT			BUS RAPID TRANSIT (LA PALMA BRT) - FIXED RT BRT BETWEEN ANAHEIM AND BUENA PARK									√		
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2L206, 2L208, 2TR0702		0	0.0	0.0	BUS SERVICE			FIXED-ROUTE BUS EXPANSION, RAIL FEEDER EXPANSION, COMMUNITY BASED SHUTTLES	Countywide Fixed Route, Express, Rapid Bus, Paratransit--expand local service to achieve up to 10-minute headways in the core of the county. Rail Feeder--add service to support Metrolink expansion. Deploy community-based shuttles										√
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2TR01212		0	0.0	0.0	METROLINK COMMUTER RAIL			METROLINK EXPAND SERVICE - ORANGE LINE TO 30 DAILY TRAINS, IEOC TO 21 DAILY, 91 LINE TO 21 DAILY. PLAN FOR MIDDAY INTRACOUNTY SERVICE, LAGUNA NIGUEL TO FULLERTON						√					
OR	T	ORANGE COUNTY TRANS AUTHORITY (OCTA)	2TR0704		0	0.0	0.0	METROLINK COMMUTER RAIL			METROLINK HIGH-FREQUENCY SERVICE TO LA & RIVERSIDE AND CORRIDOR IMPROVEMENTS	APPROX. 2015 THROUGH 2035										√
OR	T	ORANGE COUNTY TRANSIT DISTRICT (OCTD)	ORA041501	ORA041501	0	0.0	0.0	PER OCTA BUSES ARE ROTATED IN AS NEEDED IN VARIOUS ROUTES			PURCHASE (71) STANDARD 30FT EXPANSION BUSES - ALTERNATIVE FUEL -(31) IN FY08-09, (9) IN FY09-10, (7) IN FY 11-12, (6) IN FY 12-13 AND (18) IN FY 13-14	ORA 041501 and ORA55241 projects, they are expansion buses but we haven't planned out where they are going to go. Some are going to go for express routes, some for decreasing headways others for increasing coverage. We did find out that the majority of them are going to be in the central area but how many is unknown.	√	√					√			
OR	T	ORANGE COUNTY TRANSIT DISTRICT (OCTD)	ORA55241	ORA55241	0	0.0	0.0	PER OCTA BUSES ARE ROTATED IN AS NEEDED IN VARIOUS ROUTES			PURCHASE (1) STANDARD 40 FT EXPAN ALT FUEL BUSES - (1) IN FY15 - 18		√							√		
OR	T	ORANGE COUNTY TRANSIT DISTRICT (OCTD)	ORA000800	ORA000800	0	0.0	0.0	SANTA ANA BUS/ MAINTENANCE BASE			MACARTHUR @ HYLAND- SANTA ANA BUS/MAINT. BASE. CONSTRUCT FACILITY TO ACCOMMODATE 250 BUSES, BUS MAIN. OPERATIONS, FUEL/VACUUM, BRAKE CKS, WASHES,& OTHER MISC. BUS RELATED SERVICES		√	√	√							
RV	S	CALIMESA	3M04WT003		10	0.0	2.8	I-10 (PM 0.0 TO 2.8)	at Calimesa Blvd/Sandalwood Dr	btwn 7th St & Sandalwood Dr	RECONSTRUCT IC AND RECONSTRUCT/WIDEN RAMPS								√			
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	3TK04MA12	RIV070310	10	0.0	6.7	I-10	San Bernardino County Line (R0.0)	I-10/SR60 Jct	ADD EASTBOUND TRUCK CLIMBING LANE	Existing Config: 3 MF lanes in each direction								√		
RV	S	CALIMESA	RIV060117	RIV060117	10	1.5	2.3	I-10 @ SINGLETON RD INTERCHANGE	WOODHOUSE ROAD	CALIMESA BLVD	ON I-10/SINGLETON RD IC: RECONSTRUCT/WIDEN 2 TO 4 THROUGH LANES (WOODHOUSE TO CALIMESA BLVD), RECONSTRUCT/WIDEN RAMPS – EB ENTRY 1 TO 2 LNS W/ HOV PREFERENTIAL LN, WB EXIT 1 TO 3 LNS, ADD EB EXIT RAMP (3 LNS), WB ENTRY RAMP (2 LNS W/ HOV PREFERENTIAL LN), INCLUDE EXTENDED RAMP ACCEL/DECEL LNS, RELOCATE CALIMESA BLVD/SINGLETON RD INTERSECTION, ADD SB EXTENDED DEDICATED RIGHT-TURN LN (EA: 0F980)	WIDEN SINGLETON 2 TO 4 LNS; **RAMPS:** EB ON 1-2 LNS; WB ON 2 LNS INCL HOV; WB OFF 1-3 LNS; EB OFF 3 LNS	√							√		
RV	S	CALIMESA	RIV060116	RIV060116	10	2.7	3.4	I-10 @ CHERRY VALLEY BL INTERCHANGE	ROBERTS ROAD/DESERT LAWN DRIVE	CALIMESA BLVD	I-10/CHERRY VALLEY BLVD IC: RECON/WIDEN 2 TO 5 & 6 THRU LNS (3 NB+2&3 SB) FROM E/O CALIMESA BLVD TO APPROX W/O ROBERTS RD, RECON/WIDEN RAMPS – EB ENTRY 1 TO 2 LNS W/ HOV LN, RECONFIGURE/WIDEN AS HOOK RAMPS WB ENTRY 1 TO 3 LNS W/ HOV LN & WB EXIT 1 TO 2 LNS, WIDEN EB EXIT RAMP 1 TO 2 LNS, RELOCATE/WIDEN CALIMESA/CHERRY VALLEY BLVD 2 TO 4 LNS, & INCLUDE EXTENDED RAMP ACCEL/DECEL LNS (EA: 0G170)	WIDEN CHERRY VALLEY BLVD IC WIDEN 2 TO 6 THRU LANES (3NB AND 2 & 3 SB) FROM E/O CALIMESA BLVD TO APPROX W/O ROBERTS ROAD. **RAMPS:** EB ON 1-2 LNS W/HOV LN RECONFIGURES/WIDEN AS HOOK RAMPS WB ENTRY 1 TO 3 LANES W/HOV LANE WB OFF 1-3 LNS; EB OFF 2 LNS WIDEN CALIMESA/CHERRY VALLEY BLVD. 2 TO 4 LANESAND INCUDE EXTENDED RAMP ACCEL/DECEL LANES	√							√		

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CO	SYS*	LEAD AGENCY	RTP ID	RTIP ID	RTE	BEG PM	END PM	STREET	FROM	TO	DESCRIPTION	ADDITIONAL DETAILS, IF AVAILABLE	2008 RTIP	NO BUILD	NETWORK YR (PROJECT COMPLETION BY)**							
															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	CALTRANS / CALIMESA	3M04SH05		10	4.0	4.3	I-10	Calimesa @ County Line Rd (R4.0)	500 meters e/o Sandlwood Dr I/C (R4.3)	REPLACE BRIDGE, RAMPS, CONSTRUCT AUXILIARY LANES, AND REALIGN CALIMESA RD (EA 0A710K)									√		
RV	S	BEAUMONT	RIV060115 see below 7 parts	RIV060115	10	4.98	6.08	I-10 @ OAK VALLEY PKWY INTERCHANGE	500' W/O DESERT LAWN DRIVE	GOLF CLUB DR.	AT I-10/OAK VALLEY PKWY IC: RECONSTRUCT/WIDEN IC FROM 2 TO 6 THROUGH LANES FROM APPROX 500' W/O DESERT LAWN DR TO GOLF CLUB DR, WIDEN RAMPS - EB ENTRY 1 TO 2 LANES, EB & WB EXIT 1 TO 4 LANES, WB ENTRY 1 TO 3 LANES, , ADD NEW EB/WB ENTRY LOOP RAMPS (2 LANES) , ENTRY RAMPS INCLUDE HOV PREFERENTIAL LANE, AND RAMPS INCLUDE EXTENDED ACCELERATION/DECELERATION LANE (EA: 0G280}	SEE BELOW	√							√		
RV	S	BEAUMONT	RIV060115	RIV060115	10	4.98	6.08	OAK VALLEY PKWY	500' W/O DESERT LAWN DR	JUST EAST OF GOLF CLUB DR	WIDEN FROM 1 TO 3 LANES EACH DIRECTION											
RV	S	BEAUMONT	RIV060115	RIV060115	10	4.98	6.08	I-10/OAK VALLEY PKWY EB ENTRY RAMP	OAK VALLEY PARKWAY	I-10	WIDEN FROM 1 LANE TO 2 LANES AT ARTERIAL MERGING TO 1 LANE AT MAINLINE WITH HOV PREFERENTIAL											
RV	S	BEAUMONT	RIV060115	RIV060115	10	4.98	6.08	I-10/OAK VALLEY PKWY EB EXIT RAMP	I-10	OAK VALLEY PARKWAY	INCLUDES 1,315' DECEL LANE THEN WIDEN FROM1 LANE TO 1 LANE AT MAINLINE EXPANDING TO 4 TURNING LANES AT ARTERIAL											
RV	S	BEAUMONT	RIV060115	RIV060115	10	4.98	6.08	I-10/OAK VALLEY PKWY WB ENTRY RAMP	OAK VALLEY PARKWAY	I-10	WIDEN FROM 1 LANE TO 3 LANES AT ARTERIAL MERGING TO 1 LANE AT MAINLINE WITH 1000' ACCEL LANE AND HOV PREFERENTIAL											
RV	S	BEAUMONT	RIV060115	RIV060115	10	4.98	6.08	I-10/OAK VALLEY PKWY EB LOOP ENTRY RAMP	OAK VALLEY PARKWAY	I-10	ADD NEW EB LOOP ENTRY 2 LANES AT ARTERIAL MERGING TO 1 LANE AT MAINLINE WITH HOV PREFERENTIAL											
RV	S	BEAUMONT	RIV060115	RIV060115	10	4.98	6.08	I-10/OAK VALLEY PKWY WB LOOP ENTRY RAMP	OAK VALLEY PARKWAY	I-10	INCLUDES 1315' DECEL LANE THEN WIDEN FROM 1 LANE TO 1 LANE AT MAINLINE EXPANDING TO 4 TURNING LANES AT ARTERIAL											
RV	S	BEAUMONT	RIV060115	RIV060115	10	4.98	6.08	I-10/OAK VALLEY PKWY WB LOOP ENTRY RAMP	OAK VALLEY PARKWAY	I-10	ADD NEW WB LOOP ENTRY 2 LANES AT ARTERIAL MERGING TO 1 LANE AT MAINLINE WITH HOV PREFERENTIAL											
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	3M04MA05		10	6.7	0.0	I-10/SR-60 JCT/SPLIT	SR60/I-10 Jct/Split		CONSTRUCT NEW INTERCHANGE										√	
RV	S	BEAUMONT	3M04WT001		10	7.1	8.1	I-10 (PM 7.07 TO 8.07)	at SR-79/ Beaumont Ave	btwn 6th St & 1st St	RECONSTRUCT/WIDEN IC FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Config: 4 lanes - 2 in each direction								√		
RV	S	BEAUMONT	3M04WT004		10	7.7	8.7	I-10 (PM 7.71 TO 8.71)	at Pennsylvania Ave	btwn 6th St & 3rd St	RECONSTRUCT IC AND RECONSTRUCT/WIDEN RAMPS	Existing Config: 2 lanes - 1 lane in each direction								√		
RV	S	BANNING/BEAUMONT	3A04WT003		10	8.8	9.8	I-10 (PM 8.81 TO 9.81)	at Highland Springs Ave	btwn 5th St and south ramps	RECONSTRUCT/WIDEN IC FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Config: 4 Lanes (2 lane in each direction)									√	
RV	S	BANNING	3A04WT007		10	11.1	11.6	I-10 (PM 11.1 TO 11.6)	at Sunset Ave	btwn ramps	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Config: 2 lanes (1 lane in each direction)							√			
RV	S	BANNING	3M04WT002		10	12.4	13.4	I-10 (PM12.35 TO 13.35)	at 8th St	btwn Ramsey St & Lincoln St	RECONSTRUCT/WIDEN IC UC 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Config: 2 lane arterial UC (1 lane in each direction), single lane ramps									√	
RV	S	CALTRANS	RIV010210	RIV010210	10	R17.3	R19.3	I-10	AT E/O APACHE TRAIL		ON I-10 AT & E/O APACHE TRAIL - CONSTRUCT NEW MORONGO PKWY OC (4 THROUGH LANES) AND RAMPS BETWEEN SEMINOLE DR AND MAIN ST. ADD'L IMPROVEMENTS TO EXISTING APACHE TRAIL (R17.657) & MAIN ST (R19.398) INTERCHANGES INCL. ADDITION OF EB/WB AUX LANES (APACHE TR IC TO MORONGO PKWY IC, THEN TO MAIN ST IC), WIDEN SEMINOLE DR 2 TO 4 LANES (EA: OA650)	Cross street references: Seminole Dr n/o I-10 south to Main St Morongo Pkwy IC through lanes: 4 (2 lanes in each direction) Seminole Dr through lanes: 4 (2 WB + 2 EB) **IC Ramps:** WB + EB exit ramps: 3 (1 lane off of mainline expanding to 3 truning lanes at arterial) WB + EB entry ramps: 2 (2 lanes at arterial merging back to 1 lane for entry onto mainline. No HOV preferential lane included). **Aux lanes:** 1 EB aux lane starting at Apache Tr IC EB entry ramp, terminating at Morongo Pkwy IC exit ramp, then continuing from Morongo Pkwy IC EB entry ramp and terminating at Main St IC exit ramp. 1 WB aux lane starting at Main St IC WB entry ramp, terminating at Morongo Pkwy IC WB exit ramp, then continuning from Morongo Pkwy IC WB entry ramp and terminating at Apache Tr IC exit ramp.	√	√						√		
RV	S	CALTRANS / RIVERSIDE COUNTY	3M0704		10	18.9	19.9	I-10 (PM 18.9 TO 19.9)	In Cabazon (R18.9) (from approx Seminole Dr n/o I-10)	at Main Street IC (19.9) (to approx Bonita Ave s/o I-10)	IMPROVE INTERCHANGE - WIDEN 3 TO 6 LANES & CONSTRUCT RR GRADE SEPARATION CROSSING (EA:0G600)	Existing Config: 1 lane in each direction + median lane							√			

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	PALM SPRINGS	RIV62036 (Part 1 of 2)	RIV62036 (Part 1 of 2)	10	32.6	33.7	I-10 @ INDIAN AVE IC	20TH AVE N/O IC	GARNET AVE S/O IC	I-10/INDIAN CYN DR IC - WIDEN 2 TO 6 LNS BTWN GARNET AVE & 20TH AVE, RELOCATE EB EXIT RAMP (1-3 LNS) AS HOOK RAMP TO GARNET, ADD EB ENTRY HOOK RAMP (1 LN), RELOCATE WB EXIT RAMP (2-3 LNS) AS HOOK RAMP TO 20TH AVE, ADD ADJOINING WB ENTRY HOOK RAMP (2 LNS) & LOOP RAMP (2 LNS), RECON EXISTING EB & WB ENTRY RAMPS (1 LN), WIDEN GARNET 2 TO 4 LNS, WIDEN 20TH AVE 2 TO 3 LNS (2 WB & 1 EB) (EA: 45570)	OC arterial through lanes: 6 (3 lanes in each direction) **Ramps:** EB exit: 3 lanes (1 lane off mainline reconfigured as hook ramp to Garnet e/o Indian Cyn Dr & expanding to 3 turning lanes at Garnet) New EB entry hook ramp (1 lane from Garnet) EB entry ramp: 1 lane (reconfigured location) WB exit ramp: 3 lanes (1 lane off mainline reconfigured as hook ramp expanding to 3 turning lanes at 20th) New WB entry hook ramp from 20th: 2 lanes at arterial merging back to 1 lane for entry onto mainline New WB loop entry ramp off Indian Cyn: 2 lanes off Indian Cyn Dr adjoining w/new WB entry hook ramp & merging back to 1 lane for entry onto mainline. Adjoining ramps merge to 2 lanes as acceleration lane, then to 1 lane & terminate prior to WB entry ramp w/o Indian Cyn) WB entry ramp: 1 reconfigured ramp lane	√	√					√			
RV	S	PALM SPRINGS	RIV62036 (Part 2 of 2)	RIV62036 (Part 2 of 2)	10	32.6	33.7	I-10 @ INDIAN AVE IC	20TH AVE N/O IC	GARNET AVE S/O IC	I-10/INDIAN CYN DR IC - WIDEN 2 TO 6 LNS BTWN GARNET AVE & 20TH AVE, RELOCATE EB EXIT RAMP (1-3 LNS) AS HOOK RAMP TO GARNET, ADD EB ENTRY HOOK RAMP (1 LN), RELOCATE WB EXIT RAMP (2-3 LNS) AS HOOK RAMP TO 20TH AVE, ADD ADJOINING WB ENTRY HOOK RAMP (2 LNS) & LOOP RAMP (2 LNS), RECON EXISTING EB & WB ENTRY RAMPS (1 LN), WIDEN GARNET 2 TO 4 LNS, WIDEN 20TH AVE 2 TO 3 LNS (2 WB & 1 EB) (EA: 45570)	**Arterial Widening:** Garnet Ave: 4 lanes (2 lanes each dir approx 1,500' w/o Indian Cyn). Turning lanes added - 2 EB left, 1 EB thru, 1 EB right, 1 WB left, 1 WB shared thru/right) 20th Ave: 3 lanes (2 WB & 1 EB approx 700' e/o Indian Cyn. Turning lanes added - 2 WB left, 1 WB shared thru/right, 1 WB right, 1 EB left, 1 EB thru, 1 EB right)	√	√					√			
RV	S	RIVERSIDE COUNTY	45580	45580	10	35.7	36.5	I-10 @ GENE AUTRY/PALM DR IC	JUST BEYOND NORTH SIDE RAMPS ON PALM DR	SALVIA ROAD ON GENE AUTRY TRAIL	NEAR PALM SPRINGS ON I-10 AT GENE AUTRY TRAIL/PALM DRIVE IC FROM I-10 IC SOUTH TO SALVIA ROAD - WIDEN 2 TO 6 LANES, I-10 IC IMPROVS. MODIFY RAMPS FROM 1 TO 2 LANES (PPNO: 007E)	WIDEN FROM 2 TO 6 LN & MODIFY RAMPS FROM 1 TO 2 LANES	√	√				√				
RV	S	CATHEDRAL CITY	3M0722		10	38.5	0.0	NEW INTERCHANGE LANDAU AND I-10	Vista Chino	Varner Road	CONSTRUCT NEW 6-LANE MIXED FLOW, PARTIAL CLOVERLEAF IC WITH AUXILIARY LANES AND 4 TWO LANE RAMPS PLUS 6 LANE GRADE SEPARATION BRIDGE OVER UPRR BETWEEN PALM DR IC AND DATE PALM DRIVE IC	No Facility - Missing Link										√
RV	S	CALIMESA	3M0705		10	38.7	0.5	I-10 (PM SBD 38.66 TO RIV 0.52)	at County Line Rd	btwn 7th st & I-10 east ramps	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Config: 2 lanes - 1 lane in each direction							√			
RV	S	RIVERSIDE COUNTY	45590	45590	10	39.0	39.9	I-10 @ DATE PALM DR IC	JUST BEYOND NORTH SIDE RAMPS ON DATE PALM DRIVE	VISTA CHINO ROAD S/O IC	ON I-10 IN CATHEDRAL CITY AT DATE PALM DR IC: MODIFY IC/WIDEN OC & ARTERIAL INCLUDING UPRR BRIDGE 2 TO 6 LNS FROM N. RAMPS SOUTH TO VISTA CHINO & RAMPS FROM 1 TO 2 LNS (EA: 45590K)	WIDEN 2 TO 6 LANES FROM N. RAMPS TO VISTA CHINO; WIDEN RAMPS FROM 1 TO 2 LANES	√	√				√				
RV	S	CATHEDRAL CITY	RIV071251 (see 11 parts below)	RIV071251	10	39.5	43.4	I-10	at future Da Vall Dr at I-10 South of Varner Road	btwn North of I-10 to south of UPRR Da Vall Road South of UPRR	ON I-10 AT APPROX PM 41.17: CONSTRUCT NEW DA VALL DR IC (6 LNS) & RAMPS (2 LNS) FROM VARNER RD TO RAMON RD INCLUDING BRIDGE OVER UPRR AND LONG CYN CREEK CHANNEL, ADD EB/WB AUX LANES (DATE PALM DR IC TO DA VALL & DA VALL TO RAMON RD)	No facility - Missing Link	√							√		
RV	S	CATHEDRAL CITY	RIV071251	RIV071251	10	39.49	43.36	I-10 EB AUX LANES	DATE PALM DR	DA VALL DR	ADD 1 EB AUX LANE											
RV	S	CATHEDRAL CITY	RIV071251	RIV071251	10	39.49	43.36	1-10 WB AUX LANES	BOB HOPE DR	DA VALL DR	ADD 1 WB AUX LANE											
RV	S	CATHEDRAL CITY	RIV071251	RIV071251	10	39.49	43.36	I-10 WB AUX LANES	DA VALL DR	DATE PALM DR	ADD 1 WB AUX LANE											
RV	S	CATHEDRAL CITY	RIV071251	RIV071251	10	39.49	43.36	I-10/DA VALL DR EB ENTRY RAMP	DA VALL DR	I-10	ADD NEW 2 LANE EB ENTRY RAMP											
RV	S	CATHEDRAL CITY	RIV071251	RIV071251	10	39.49	43.36	I-10/DA VALL DR EB EXIT RAMP	I-10	DA VALL DR	ADD NEW 2 LANE EB EXIT RAMP											
RV	S	CATHEDRAL CITY	RIV071251	RIV071251	10	39.49	43.36	I-10/DA VALL DR EB LOOP ENTRY RAMP	DA VALL DR	I-10	ADD NEW 2 LANE EB LOOP ENTRY RAMP											
RV	S	CATHEDRAL CITY	RIV071251	RIV071251	10	39.49	43.36	I-10/DA VALL DR WB LOOP ENTRY RAMP	DA VALL DR	I-10	ADD NEW 2 LANE WB LOOP ENTRY RAMP											
RV	S	CATHEDRAL CITY	RIV071251	RIV071251	10	39.49	43.36	I-10/DA VALL DR WB ENTRY RAMP	DA VALL DR	I-10	ADD NEW 2 LANE WB ENTRY RAMP											
RV	S	CATHEDRAL CITY	RIV071251	RIV071251	10	39.49	43.36	I-10 DA VALL DR WB EXIT RAMP	I-10	DA VALL DR	ADD NEW 2 LANE WB EXIT RAMP											
RV	S	CATHEDRAL CITY	RIV071251	RIV071251	10	39.49	43.36	DA VALL DR	VARNER RD	RAMON RD	CONSTRUCT DA VALL IC WITH 6 THROUGH LANES											
RV	S	CATHEDRAL CITY	RIV071251	RIV071251	10	39.49	43.36	I-10 EB AUX LANES	DA VALL DR	BOB HOPE DR	ADD 1 EB AUX LANE											

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	CALTRANS	45600	45600	10	41.3	44.6	I-10 BOB HOPE DRIVE EXTENSION AND IC CONSTRUCTION	3.3 KM WEST OF RAMOND RD	2.0 KM EAST OF RAMON RD	ON I-10 NEAR RANCHO MIRAGE FROM 3.3 KM WEST TO 2.0 KM EAST OF RAMON RD IC - CONSTRUCT BOB HOPE DR EXTENSION (6 LANES) W/ A NEW DIAMOND IC & MODIFY RAMON RD IC & RAMPS (PPNO: 0007D) (EA:45600)	Cross street references: Bob Hope Dr/Ramon Rd intersection s/o I-10 north to Varner Rd Ramon Rd arterial through lanes: No changes Ramon Rd ramps: EB exit, WB exit, WB entry, and WB loop entry ramps removed. Only EB entry ramp remains unchanged. Bob Hope Dr IC arterial through lanes: 6 (3 lanes in each direction) **Ramps:** EB and WB exit ramps: 3 lanes (1 lane off mainline expanding to 3 turning lanes) EB and WB entry ramps: 2 lanes (2 lanes at arterial merging back to 1 lane for entry onto mainline)	√	√				√				
RV	S	PALM DESERT	RIV031208	RIV031208	10	44.3	44.6	I-10 @ MONTEREY AVE IC	PM 44.3 ON I-10 WHERE WB EXIT RAMP WILL BEGIN	VARNER ROAD ABOUT 1/3 MILE E/O MONTEREY AVE/VARNER ROAD	AT I-10/MONTEREY AVE IC - RECONFIGURE IC: CONSTRUCT NEW WB ENTRY RAMP FROM VARNER RD AND REALIGN/RELOCATE WB EXIT RAMP TO 1/3 MILE E/O MONTEREY/VARNER (EA: 0F050)	Add new WB loop entry ramp (1 lane)	√	√				√				
RV	S	PALM DESERT	RIV031209 (Part 1 of 2) see below for 12 parts	RIV031209 (Part 1 of 2)	10	44.8	46.6	I-10 @ NEW PORTOLA IC			AT I-10/PORTOLA AVE (B/W MONTEREY IC & COOK IC): CONSTRUCT NEW 6 THRU LANE PORTOLA AVE IC FROM DINAH SHORE DR TO VARNER RD & RAMPS (EB & WB EXIT 3 LNS, EB & WB ENTRY 2 LNS, EB ENTRY LOOP RAMP 2 LNS, ENTRY INCL HOV LN, WIDENING INCLUDES BRIDGE OVER UPRR & RELOCATE/WIDEN VARNER 2 TO 4 LNS, ADD EB/WB AUX LNS (MONTEREY TO PORTOLA AND PORTOLA TO COOK), EXTEND 4TH WB LANE COOK TO PORTOLA (EA: 0F120K)		√					√			
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	PORTOLA AVE	DINAH SHOR DR	VARNER RD	CONSTRUCT PORTOLA AVE IC WITH 6 THROUGH LANES											
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	I-10/PORTOLA AVE EB ENTRY RAMP	PORTOLA AVE	I-10	ADD NEW EB ENTRY 2 LANES AT ARTERIAL MERGING TO 1 LANE AT MAINLINE WITH HOV PREFERENTIAL											
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	I-10/PORTOLA AVE WB ENTRY LOOP RAMP	PORTOLA AVE	I-10	ADD NEW WB LOOP ENTRY 2 LANES AT ARTERIAL W/HOV PREFERENTIAL MERGING TO 1 LANE BECOMING WB AUX LANE											
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	I-10 EB AUX LANES	MONTEREY AVE IC ENTRY RAMP	PORTOLA AVE IC EXIT RAMP	ADD 1 EB AUX LANE											
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	I-10 WB AUX LANES	COOK ST IC ENTRY RAMP	PORTOLA AVE IC EXIT RAMP	ADD 1 WB AUX LANE											
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	VARNER RD	PORTOLA AVE	1000' WEST	RELOCATE/WIDEN FROM 2 TO 4 THROUGH LANES											
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	I-10/PORTOLA AVE EB EXIT RAMP	I-10	PORTOLA AVE	ADD NEW 2 LANE EB EXIT RAMP											
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	I-10/PORTOLA AVE WB EXIT RAMP	I-10	PORTOLA AVE	ADD NEW WB EXIT 2 LANES OFF MAINLINE EXPANDING TO 3 TURN LANES AT ARTERIAL											
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	I-10/PORTOLA AVE WB ENTRY RAMP	PORTOLA AVE	I-10	ADD NEW WB ENTRY 2 LANES AT ARTERIAL W/HOV PREFERENTIAL MERGING TO 1 LANE BECOMING WB AUX LANE											
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	I-10 EB AUX LANES	PORTOLA AVE IC ENTRY RAMP	COOK ST IC EXIT RAMP	ADD 1 EB AUX LANE											
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	I-10 WB AUX LANES	PORTOLA AVE IC ENTRY RAMP	MONTEREY AVE IC EXIT RAMP	ADD 1 WB AUX LANE											
RV	S	PALM DESERT	RIV031209	RIV031209	10	44.8	46.6	I-10 WB	COOK ST IC ENTRY RAMP	JUST BEYOND PORTOLA AVE IC EXIT RAMP	EXTEND WB 4TH LANE	EXISTING 3 TO 4										
RV	S	CALTRANS	3M01SH06		10	44.5	58.9	I-10	Monterey Ave (44.5)	Dillon Rd (58.9)	ADD 1 MF LANE EACH DIRECTION (EA 0A030K)	Existing Config: 6 MF lanes (3 lanes in each direction)									√	

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	INDIO	47520 (Part 1 of 2)	47520 (Part 1 of 2)	10	51.7	53.1	I-10 @ JEFFERSON ST IC	VARNER ROAD/AVENUE 42 N/O IC	APPROX 600' BEYOND THE JEFFERSON ST/INDIO BLVD INTERSECTION ON JEFFERSON ST.	AT I-10/JEFFERSON ST IC: RECONSTRUCT, REALIGN, & WIDEN IC 2 TO 6 LANES (SUN CITY BLVD TO UPRR), WIDEN RAMPS, ADD NEW ENTRY RAMPS, ADD DEDICATED RIGHT-TURN LANES PLUS WIDEN VARNER RD 2 TO 4 LANES E/O JEFFERSON ST (EA: 475200)	Jefferson St arterial through lanes: 6 (3 lanes in each direction btween Sun City Blvd and UPRR) Varner Rd arterial through lanes: 4 (2 lanes in each direction approx 500' east of Jefferson St intersection) EB exit ramp: 4 (2 deceleration lanes off of mainline expanding to 4 turning lanes at arterial, approx 1/4 mile) EB entry ramp: removed and replaced with new EB loop entry ramp WB exit ramp: 3 (1 lane off mainline expanding to 3 turning lanes at arterial) WB fly-over entry ramp: Removed WB entry ramp: 2 (2 lanes at arterial merging back to 1 lane for entry onto mainline. No HOV preferential lane included.) New EB loop entry ramp: 2 (2 lanes at arterial merging back to 1 lane for entry onto mainline. No HOV preferential lane included.) New WB loop entry ramp: 2 (2 lanes at arterial merging back to 1 lane for entry onto mainline. No HOV preferential lane included)	√						√			
RV	S	INDIO	47520 (Part 2 of 2)	47520 (Part 2 of 2)	10	51.7	53.1	I-10 @ JEFFERSON ST IC	VARNER ROAD/AVENUE 42 N/O IC	APPROX 600' BEYOND THE JEFFERSON ST/INDIO BLVD INTERSECTION ON JEFFERSON ST.	AT I-10/JEFFERSON ST IC: RECONSTRUCT, REALIGN, & WIDEN IC 2 TO 6 LANES (SUN CITY BLVD TO UPRR), WIDEN RAMPS, ADD NEW ENTRY RAMPS, ADD DEDICATED RIGHT-TURN LANES PLUS WIDEN VARNER RD 2 TO 4 LANES E/O JEFFERSON ST (EA: 475200)	Extended Dedicated Right-Turn Lanes: 1 SB lane (approx 250') on Jefferson St terminating at Varner Rd 1 SB lane on Jefferson St (approx 250') terminating at WB entry ramp 1 SB lane on Jefferson St (approx 250') terminating at EB loop entry ramp 1 NB lane on Jefferson St (approx 250') starting n/o new EB loop entry ramp and terminating at new WB loop entry ramp 1 NB lane on Jefferson St (approx 250') terminating at Varner Rd 2 EB lanes on Varner Rd (approx 250)' terminating at Jefferson St 1 WB lane on Varner Rd (approx 250') terminating at Jefferson St	√						√			
RV	S	INDIO	RIV62032	RIV62032	10	53.2	54.2	I-10 @ NEW MADISON ST IC	AVENUE 42	TO APPROX 600' BEYOND INDIO BLVD	IN INDIO ON I-10 AT MADISON ST - CONSTRUCT NEW 4 LANE IC & RAMPS (2 LANES) AND WIDEN MADISON ST 2 TO 4 LANES FROM AVENUE 42 TO APPROX 600' BEYOND INDIO BLVD	CONSTRUCT NEW 4 LANE IC & RAMPS (2 LNS)	√	√				√				
RV	S	COACHELLA / CALTRANS	3M0715		10	58.4	59.4	I-10 (PM 58.39 TO 59.39)	at Dillon Rd	Btwn Vista Del Norte and Vista Del Sur	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Config: 2 lanes 1 lane in each direction (IC widening susequent to Dillon Rd arterial widening to 4 lanes in RIV011209)							√			
RV	S	COACHELLA	RIV030901	RIV030901	10	62.3	62.9	I-10 @ NEW MCNAUGHTON PKWY IC	APPROX 1/2 MILE N/O I-10	APPROX 1/2 MILE S/O I-10	ON I-10 IN EASTERN COACHELLA (AT 5.5 KM E/O DILLON RD & 14.6 KM W/O CACTUS CITY SRRA) CONSTRUCT NEW 6 THROUGH LN MCNAUGHTON PKWY IC (3 LNS EACH DIR. APPROX 1/2 MILE N/O AND S/O I-10), EB EXIT RAMP (1 LANE) & WB EXIT RAMP (1 LANE), EB & WB ENTRY RAMPS (1 LANE), EB & WB LOOP ENTRY RAMPS (1 LANE) WITH EXTENDED RAMP ACCELERATION/DECELERATION LANES (EA: 45210)	Ramps: - EB exit ramps: 1 (1 lane off mainline expanding to 3 turning lanes at arterial) - WB exit ramps: 1 (1 lane off mainline expanding to 2 turning lanes at arterial) - EB & WB entry ramps: 1 lane - EB & WB loop entry ramps: 1 lane - Entry and exit ramps include extended acceleration deceleration lanes (approx1/4 mile) - Construct new 6 lane OC across i-10	√						√			
RV	S	COACHELLA / CALTRANS	3M01CV01		10	68.0	0.0	I-10	at Ave 50	I-10	CONSTRUCT NEW 4 LANE IC AND RAMPS	No existing facility							√			
RV	S	RIVERSIDE COUNTY	RIV050531	RIV050531	15	0.0	2.0	I-15	Eastern Bypass		ON I-15 S/O TEMECULA - CONSTRUCT NEW EASTERN BYPASS/I-15 IC (4 LANES) & RAMPS (1 LANE) AND 4 LANE (2 LNS EACH DIR) EASTERLY CONNECTING ROAD (APPROX 2 MILES)		√							√		
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV031219 (I-15 portion)	RIV031219 (I-15 portion)	15	0.0	6.6	I-15			CETAP WINCHESTER TO TEMECULA CORRIDOR: WIDEN TO 1 HOV & 6 MF EACH DIR FROM I-215 TO WINCHESTER RD, AND 1 HOV & 5 MF EACH DIR FROM WINCHESTER RD TO SAN DIEGO COUNTY LINE		√							√		
RV	S	TEMECULA	RIV62031	RIV62031	15	3.0	4.0	I-15 @ SR79 SOUTH IC	OLD TOWN FRONT ST W/O IC	BEDFORD COURT	I-15/SR79 SO. IC: REMOVE SB EXIT RAMP, ADD NEW SB EXIT LOOP RAMP, REALIGN SB EXIT RAMP (2 LNS) W/AUX LN. WIDEN SB ENTRY 1 TO 3, NB EXIT 1 TO 4, NB ENTRY 1 TO 3 & RECON SR79S.	REALIGN SB EXIT RAMP (2 LNS); REALIGN/WIDEN SB ENTRY RAMP 1 TO 3 LNS, WIDEN NB RAMPS 1 TO 2 LNS NOTE: CHG IN DESCRIPTION PREVIOUSLY READ MODIFICATION/RECONFIGURE RAMPS INCLUDING SB RAMPS REMOVAL, CONSTRUCT NEW SB EXIT/ENTRY RAMPS (2 LNS), & FRONT ST REALIGN/CHANNELIZATION IMPROVEMENTS	√	√				√				

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	CALTRANS / TEMECULA	3M0701		15	3.4	6.6	I-15	SR79 South (3.44)	SR79 North (6.62)	ADD 1 AUXILIARY LANE IN BOTH DIRECTIONS	Existing Config: PM Begin 3.44 PM End 6.62 There is no existing configuration. These are new aux lanes - One lane in each direction (north & south). This project is not part of RTIP ID RIV62031.						√				
RV	S	TEMECULA	3M0721		15	4.5	5.5	I-15 (PM 4.48 TO 5.48)	at I-15/Rancho California	btwn Ynez Rd and Jefferson Ave	RECONFIGURE 4 TO 6 LANE IC AND RAMPS AT I-15. TYPE OF LANES FOR ARTERIAL WIDENING WILL BE THROUGH LANES.	Existing Configuration: 4 lanes (2 in each direction)									√	
RV	S	TEMECULA	RIV031215 (Part 1 of 3)	RIV031215 (Part 1 of 3)	15	5.5	9.6	FRENCH VALLEY PKWY	Jefferson	Ynez	FRENCH VALLEY PKWY IC/ARTERIAL PHASES: CONSTRUCT 6 LN IC (JEFFERSON TO YNEZ) & RAMPS, NB/SB AUX LN, CD LNS (3 LNS NB&SB) & MODIFY WINCHESTER RD IC (I-215 PM: 8.43-9.75) (EA:43270)	**EXISTING CONDITIONS:** FVP IC arterial through lanes and ramps: 0 (No existing facility) Winchester Rd IC SB exit ramp: 1 lane (widening to occur in RTIP ID 991202) Mainline collector distributor lane system: 0 (No existing system in place) **IMPROVEMENTS:** French Valley Pkwy IC (FVP IC): Cross street references: Jefferson Ave west of I-15 east to Ynez Rd Arterial through lanes: 6 (3 lanes in each direction) **Ramps:** - NB exit ramp: 3 lanes (1 lane off mainline expanding to 3 turning lanes at arterial) - NB loop entry ramp: 2 lanes (2 lanes off arterial merging back to 1 lane for entry onto mainline (into CD lanes). Includes HOV preferential lane) - NB entry ramp: 2 lanes (1 lane off arterial expanding 2 lanes and then merging back to 1 lane for entry onto mainline (in CD lanes). Includes HOV preferential lane.)	√	√					√			
RV	S	TEMECULA	RIV031215 (Part 2 of 3)	RIV031215 (Part 2 of 3)	15	5.5	9.6	FRENCH VALLEY PKWY	Jefferson	Ynez	FRENCH VALLEY PKWY IC/ARTERIAL PHASES: CONSTRUCT 6 LN IC (JEFFERSON TO YNEZ) & RAMPS, NB/SB AUX LN, CD LNS (3 LNS NB&SB) & MODIFY WINCHESTER RD IC (I-215 PM: 8.43-9.75) (EA:43270)	NB entry ramp: 2 lanes (1 lane off arterial expanding 2 lanes and then merging back to 1 lane for entry onto mainline (in CD lanes). Includes HOV preferential lane.) - SB exit ramp: 4 lanes - constructed in phase 1 as programmed in RTIP ID 991202 (1 lane off mainline (off CD system) expanding to turning lanes at arterial) - SB loop entry ramp: 1 lane (w/ meter) - SB entry ramp: 1 lane (w/ meter) **Aux lanes:** - 1 NB and SB aux lane on I-15 from Murrieta Hot Springs Rd ramps and terminating into CD system at approx I-215 SB flyover - 1 NB aux lane from Winchester Rd IC loop entry ramp north to FVP IC exit ramp) - 1 SB aux lane from FVP IC to Winchester Rd IC (to be constructed in phase 1 in 991202) **Collector Distributor (CD) Lane System Improvements to Mainline:** **Southbound CD Lane Improvements:** - SB CD lanes (2 lanes) from n/o SB I-215 flyover south to approx halway between FVP IC and SB I-215 flyover - SB CD lanes (2 lanes) from I-215 flyover south to approx halfway between FVP IC and SB I-215 flyover	√	√					√			

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	TEMECULA	RIV031215 (Part 3 of 3)	RIV031215 (Part 3 of 3)	15	5.5	9.6	FRENCH VALLEY PKWY	Jefferson	Ynez	FRENCH VALLEY PKWY IC/ARTERIAL PHASES: CONSTRUCT 6 LN IC (JEFFERSON TO YNEZ) & RAMPS, NB/SB AUX LN, CD LNS (3 LNS NB&SB) & MODIFY WINCHESTER RD IC (I-215 PM: 8.43-9.75) (EA:43270)	- SB CD lanes (2 lanes) from south of I-215 flyover to approx halfway to FVPIC - SB CD lanes (3 lanes) from approx halfway between FVP IC and I-215 flyover to FVP exit ramp - SB CD lanes (2 lanes) from approx SB FVP IC exit ramp to south of FVP transitioning to 1 lane with aux lane south to Winchester Rd IC - SB CD lanes (2 lanes) from SB FVP IC entry ramp to south of Winchester Rd IC - SB drop Lane (1 lane) from south of Winchester Rd IC south approx 1/2 mile past Overland Dr OC **Northbound CD Lane Improvements:** - NB CD lanes (2 lanes) from Winchester Rd IC NB entry ramp to north of FVP IC - NB CD lanes (3 lanes) from north of FVP IC (NB loop entry ramp combines with NB 2 CD lanes) north to approx halfway to SB I-215 flyover - NB CD lanes (2 lanes) from approx halfway north of FVP IC on I-15 to I-215 SB flyover - NB CD lanes (2 lanes) from approx halway north of FVP IC on I-15 north onto I-215 and terminating at Murrieta Hot Springs Rd exit ramp	√	√					√			
RV	S	TEMECULA	991202	991202	15	6.6	7.7	FRENCH VALLEY PKWY	I-15	JEFFERSON STREET	FRENCH VALLEY PKWY (FVP) - PHASE 1: DESIGN & CONSTRUCT FVP (I-15 - JEFFERSON), SB EXIT RAMP (1 LN), SB AUX LANE (FVP - WINCHESTER RD) & WIDEN WINCHESTER SB EXIT RAMP (1 TO 3 LNS)	SOUTHBOUND EXIT RAMP - 1 LANE DESCRIPTION CHG'D PREVIOUSLY READ TO 2 LANES.	√	√				√				
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	3M07A		15	8.7	16.3	I-15	Bundy Canyon	I-15/I-215 IC	I-15 ADD 1 MF LANE EACH DIR, BUNDY CANYON TO I-15/I-215 INTERCHANGE (FROM 3 TO 4 MF EACH DIR)	Existing Config: 3 MF lanes each dir							√			
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	RIV071267	RIV071267	15	8.7	52.3	I-15	SR-74	San Bernardino County line	I-15 - SBD CO LINE TO JCT I-15/I-215: CONSTRUCT 4 HOT LNS (2 LNS EA DIR) FROM SBD CO LINE TO HIDDEN VALLEY PKWY AND FROM CAJALCO RD TO SR74 JCT; ADD 2ND HOT LANE EA DIR FROM HIDDEN VALLY PKWY TO CAJALCO FOR TOTAL 2 LANES EA DIR (1ST HOT LANE UNDER RIV071250); CONSTRUCT 2 MF LNS (1 LN EA DIR) FROM SBD CO LINE TO SR-74; CONSTRUCT 2 HOV LNS (1 LN EA DIR) FROM SR74 TO JCT I-15/I-215	Existing Config: 3 MF lanes each dir - Add 4 HOT lanes (2 each dir) from SBD Co line south to Hidden Valley Pkwy - Add 2 HOT lanes (1 each dir) from Hidden Valley Pkwy to Cajalco Rd (note: see also RIV071250) - Add 4 HOT lanes (2 each dir) from Cajalco Rd to SR-74 - Add 2 MF lanes (1 each dir) from SBD Co line to SR-74 - Add 2 HOV Lanes (1 each dir) from SR74 south to Jct I-15/I-215 (was 3M0703)	√						√			
RV	S	MURRIETA	3M0730	RIV080901	15	9.5	0.0	I-15	at Murrieta Hot Springs Rd	I-15 entrance and exit ramp limits	AT I-15/MURRIETA HOT SPRINGS RD IC - CONSTRUCT NEW NB LOOP ON RAMP AND REALIGN EXISTING NB OFF RAMP	1 lane off ramps with existing loop in the northwest quadrant Add new 2-lane NB loop entry ramp (approx length is 1300')							√			
RV	S	MURRIETA	RIV010204	RIV010204	15	10.3	10.9	I-15 @ CALIFORNIA OAKS RD/KALMIA ST IC	MADISON AVE	JUST EAST OF EAST SIDE RAMPS	AT I-15/CALIFORNIA OAKS RD/KALMIA ST IC - RECONFIGURE RAMPS (CONSTRUCT NB/SB LOOP ON RAMPS, RELOCATE SB/NB OFF RAMP), WIDEN CAL OAKS 4 TO 6 LNS FROM UC TO CAL OAKS PLAZA (EA: 0A490)	RECONFIGURE RAMPS (CONSTRUCT NB/SB LOOP ON RAMPS, RELOCATE SB/NB OFF RAMP), Add new NB loop entry 2 lanes at arterial merging to 1 lane at mainline Add new SB loop entry 2 lanes at arterial merging to 1 lane at mainline	√	√				√				
RV	S	RIVERSIDE COUNTY	RIV62034	RIV62034	15	13.0	14.3	I-15 @ CLINTON KEITH IC	WEST FRONTAGE RD W/O IC	OAK OAKS DR E/O IC	AUXILIARY & I-15/CLINTON KEITH RD IC: RECON/WIDEN OC 2 TO 6 LNS & RAMPS 1 & 2 LNS TO 3 & 4 LNS, ADD NB/SB AUX LNS 400/300 MTRS PRIOR TO & AFTER EXIT/ENTRY RAMPS & LEFT-TURN LNS (EA: 0F580K)	Existing arterial lanes: 2 (1 in each direction) Improvement lanes: 6 (3 in each direction) Mixed flow lanes - no change Existing ramp lanes: 1 Improvement ramp lanes: 3 NB aux lanes = approx 400 meters SB aux lanes = approx 300 meters	√	√				√				
RV	S	RIVERSIDE COUNTY	3M0727		15	15.8	16.8	I-15 (PM 15.8 TO 16.8)	at Bundy Canyon Rd	btwn Orange St & Cherry St	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT RAMPS	Existing Configuration: 2 lanes (1 lane in each direction)									√	

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	LAKE ELSINORE	RIV010206 (Part 1 of 2)	RIV010206 (Part 1 of 2)	15	16.5	21.0	I-15 @ FRANKLIN ST	AUTO CENTER DR/CASINO DR W/O IC	SUMMERHILL / GRAPE ST E/O IC	AT I-15/RAILROAD CYN RD IC & I-15/FRANKLIN ST: CONSTRUCT NEW FULL IC AT FRANKLIN ST, RECONSTRUCT/WIDEN FRANKLIN ST OC 2 TO 4 THROUGH LANES, RECONSTRUCT/WIDEN RAILROAD CYN UC 4 TO 6 THROUGH LANES (SUMMERHILL DR TO CASINO RD), RECONFIGURE RAMPS, ADD AUX LANES FROM FRANKLIN ST TO RAILROAD CYN RD, ADD RAMP ACCELERATION/DECELERATION LANES, AND NEW RAILROAD CYN RD NB ENTRY + SB EXIT RAMPS (EA: 0A440)	Cross street references: Summerhill Dr/Grape St west of I-15 east to Casino Dr/Auto Center Dr **Railroad Cyn Rd IC:** - Arterial through lanes: 6 lanes (3 lanes in each direction) - Ramps: - NB Exit ramp: 4 lanes (1 lane off mainline expanding to 4 turning lanes at arterial. Ramp is relocated and reconfigured to be a hook ramp connecting to Grape St.) - NB entry ramp: 2 lanes (2 lanes at arterial merging back to 1 lane for entry onto mainline) - Add new NB entry hook ramp: 2 lanes (2 lanes at arterial (Grape St) merging back to 1 lane for entry onto mainline) - SB exit ramp: 3 lanes (1 lane off mainline expanding to 3 turning lanes at arterial) - SB entry ramp: 2 lanes (Existing SB entry ramp is removed and replaced with a hook ramp off of Casino Dr. 2 lanes at arterial merging back to 1 lane for entry onto mainline) - Add new SB exit ramp: 2 lanes (1 lane hook ramp off mainline expanding to 2 turning lanes at arterial/Casino Dr)	√	√					√		
RV	S	LAKE ELSINORE	RIV010206 (Part 2 of 2)	RIV010206 (Part 2 of 2)	15	16.5	21.0	I-15 @ FRANKLIN ST	AUTO CENTER DR/CASINO DR W/O IC	SUMMERHILL / GRAPE ST E/O IC	AT I-15/RAILROAD CYN RD IC & I-15/FRANKLIN ST: CONSTRUCT NEW FULL IC AT FRANKLIN ST, RECONSTRUCT/WIDEN FRANKLIN ST OC 2 TO 4 THROUGH LANES, RECONSTRUCT/WIDEN RAILROAD CYN UC 4 TO 6 THROUGH LANES (SUMMERHILL DR TO CASINO RD), RECONFIGURE RAMPS, ADD AUX LANES FROM FRANKLIN ST TO RAILROAD CYN RD, ADD RAMP ACCELERATION/DECELERATION LANES, AND NEW RAILROAD CYN RD NB ENTRY + SB EXIT RAMPS (EA: 0A440)	**Franklin St IC:** - Arterial through lanes: 4 (2 lanes in each direction) - Add new NB exit ramp (1 lane (connects to Grunder Dr) - Add NB entry ramp: 1 lane - Add SB exit ramp: 1 lane - Add SB entry ramp: 1 lane **Auxliary Lanes:** 1 aux lane in each direction between Railroad Cyn Rd and Franklin Dr IC	√	√					√		
RV	S	LAKE ELSINORE	3M0732		15	16.9	0.0	I-15	at Lemon St UC	btwn Almond St and Grape St	WIDEN UC FROM 2 TO 4 LANES	Existing Config: 2 lanes (1 lane in each direction)									√	
RV	S	LAKE ELSINORE	3M0735		15	17.0	18.0	I-15 (PM 17.01 TO 18.01)	at Olive St	btwn Orchard St and Grape St	CONSTRUCT NEW 4 LANE IC AND RAMPS	New facility								√		
RV	S	LAKE ELSINORE	3M0734		15	18.4	0.0	I-15	at Malaga Rd	btwn Casino Dr Lakeview Terrace and Grape St	CONSTRUCT NEW 4 LANE OC OVER I-15	New facility									√	
RV	S	LAKE ELSINORE	3M0726		15	19.8	0.0	I-15	at Franklin	btwn Main St and RR	CONSTRUCT NEW 4 LANE IC AND RAMPS									√		
RV	S	LAKE ELSINORE	3A04A16		15	21.5	0.0	I-15	at Second St (Chaney Ave)	btwn Collier Ave and Camino del Norte	CONSTRUCT NEW 4 LANE ARTERIAL CONNECTING OVERCROSS OVER I-15	New facility										√
RV	S	LAKE ELSINORE	RIV060109	RIV060109	15	20.8	23.7	I-15 @ SR-74 (CENTRAL AVE) INTERCHANGE	COLLIER AVE W/O IC	CAMBERN AVE E/O IC	I-15/SR 74 (CENTRAL AVE) IC JCT MOD BTWN 1,000' W/O COLLIER TO CONARD: ADD NB- LOOP ENTRY RAMP WITH ACCELERATION LANE, REALIGN NB ENTRY & EXIT RAMPS, WIDEN SB ENTRY & EXIT RAMPS, ADD SB ACCELERATION & DECELERATION LANES, ADD NB DECELERATION LANE. WIDEN SR74 - RIVERSIDE DR TO CENTRAL AVE 2 TO 4 THRU LNS & COLLIER AVE TO CAMBERN 4 TO 6 THRU LNS, CONSTRUCT RIVERSIDE DR OC & WIDEN RIVERSIDE DR 2 TO 4 THRU LNS FROM COLLIER TO CAMBERN (SR74 PM Limits: 15.5 to 18.5) (EA: 0F3100)	Modeling details based on Combination - Modified Type L-7 partial Cloverleaf IC and Type L-1 IC **Cross street references:** SR74 (Collier Ave): Riverside Dr to Central Ave., W/O I-15 Riverside Dr. Approx. 1,000' W/O Collier Ave., across I-15 to Cambern Ave. **Arterial Through lanes:** SR74 (Collier Ave) – Riverside Dr. to Central Ave: 4 lanes (2 lanes in each direction) SR74 (Central Ave) – Collier Ave. to Cambern Ave: 6 lanes (3 lanes in each direction) Riverside Dr (Collier Ave to Cambern Ave): 4 lanes (2 lanes in each direction, includes OC across I-15) **Ramps:** New NB loop on-ramp: 1 lane + HOV lane SB exit ramp: add 2 lanes **Merge/Diverge Aux Lanes:** NB and SB entry ramps: add HOV lanes NB exit ramp: realign & add 2 lanes **Dedicated turn lanes:** Project includes turn lanes which are not modeled, therefore not listed here	√							√		
RV	S	LAKE ELSINORE	3A04A17		15	22.8	0.0	I-15	at Riverside Dr	btwn Collier Ave and Dexter Ave	CONSTRUCT NEW 4 LANE OC OVER I-15	New facility									√	
RV	S	LAKE ELSINORE	3M0736		15	23.4	24.4	I-15 (PM 23.35 TO 24.35)	at Nichols Rd	btwn ramps	RECONSTRUCT/WIDEN IC FROM 2 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Config: 2 lanes (1 lane in each direction)									√	
RV	S	LAKE ELSINORE	3M0737		15	26.7	0.0	I-15	at Lake St	btwn Walker Cyn Rd Temescal Cyn Rd	RECONSTRUCT/WIDEN IC FROM 2 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Config: 2 lanes (1 lane in each direction)									√	
RV	S	RIVERSIDE COUNTY	3M0729		15	28.4	29.4	I-15 (28.36 TO 29.36)	at Horsethief Canyon Rd	just beyond and btwn ramps	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT RAMPS	Existing Configuration: 2 lanes (1 lane in each direction)									√	

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	RIVERSIDE COUNTY	3M0728		15	32.6	33.6	I-15 (PM 32.60 TO 33.60)	at Temescal Canyon	near Indian Truck Trail and Glenn Ivy just beyond and btwn ramps	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT RAMPS	Existing Configuration: 2 lanes (1 lane in each direction)									√	
RV	S	CORONA	RIV011239	RIV011239	15	35.2	36.1	WEIRICK RD	Temescal Cyn Rd	I-15	NEAR CORONA AT I-15/WEIRICK ROAD IC - WIDEN RAMPS 1 TO 2 LANES, WIDEN WEIRICK ROAD 2 TO 4 LANES FROM TEMESCAL CANYON RD TO I-15, AND INSTALL SIGNALS AT RAMPS/WEIRICK RD	WIDEN RAMPS 1 TO 2 LANES	√	√	√								
RV	S	CORONA	RIV010208	RIV010208	15	36.1	37.6	CAJALCO RD	TEMESCAL CANYON ROAD	BEDFORD CYN RD	AT I-15/CAJALCO RD IC NEAR CORONA: RECONSTRUCT/REALIGN AND WIDEN CAJALCO RD FROM 2 TO 6 THROUGH LANES FROM TEMESCAL CYN RD TO BEDFORD CYN RD, RECONSTRUCT/WIDEN SB ENTRY FROM 1 TO 2 LANES, SB EXIT FROM 2 TO 5 LANES, NB ENTRY FROM 1 LANE TO A 2 LANE RAMP, NB EXIT FROM 2 TO 4 LANES, AND ADD AUX. LANES BTWN NB ENTRY AND NB EXIT TO EL CERRITO RD, AND BETWEEN SB ENTRY FROM EL CERRITO RD AND SB EXIT.	Cross street references: Temescal Cyn Rd to Bedford Cyn Rd Arterial through lanes: 6 (3 lanes in each direction) **Ramps:** - SB exit ramp: 5 lanes (1 lane off I-15 mainline and 1 lane continuing from I-15 aux lane, expanding to 2 right turn lanes and 3 left turn lanes at arterial) - SB entry ramp: no change from original. - NB exit ramp: 4 lanes (1 lane off mainline expanding to 2 right turn lanes and 2 left turn lanes) - NB entry ramp: 2 entry points (2 lanes at WB arterial continuing and joining I-15 aux lane north to and terminating at El Cerrito Rd, 2 lanes at EB arterial continuing and tapering to 1 lane before joining I-15).	√					√				
RV	S	CORONA	RIV62101	RIV62101	15	37.3	38.2	I-15	AT EL CERRITO ROAD INTERCHANGE		T I-15/EL CERRITO RD IC MOD - WIDEN SB OFF & NB ON RAMPS 1 TO 2 LNS, WIDEN EL CERRITO RD 2 TO 4 LNS BETWEEN RAMPS, INSTALL NEW RAMP METER, TRAFFIC SIGNALS - NO NEW R/W (EA: 0E440)	WIDEN SB OFF & NB ON RAMPS 1 TO 2 LANES AND FROM 2 TO 4 LANES BETWEEN RAMPS	√	√	√								
RV	S	CORONA	RIV060105	RIV060105	15	37.8	38.0	I-15	EL CERRITO RD IC		AT I-15/EL CERRITO RD IC - RECONSTRUCT/MODIFY RAMPS: WIDEN SB ENTRY AND NB EXIT RAMPS 1 TO 2 LANES, INSTALL NEW RAMP METER AND TRAFFIC SIGNALS	WIDEN SB ON AND NB EXIT RAMPS 1 TO 2 LANES	√	√	√								
RV	S	CORONA	RIV010207	RIV010207	15	38.6	38.6	I-15	COMPTON AVE W/O I-15	STATE ST	IN CORONA AT I-15/ONTARIO AVE IC: WIDEN ONTARIO AVE UC FROM 3 TO 5 THROUGH LANES (3 WB AND 2 EB) FROM COMPTON AVE TO STATE STREET	Cross street references: Compton St w/o I-15 east to State St **IMPROVEMENTS** Arterial though lanes: 5 (3 WB and 2 EB)	√						√				
RV	S	NORCO	3M04WT007		15	42.4	43.4	I-15 (PM 42.37 TO 43.37)	at Hidden Valley Pkwy	btwn Hamner Ave & Beyond NB Exit Ramp	RECONSTRUCT INTERCHANGE/RAMPS/CHANNELIZATION IMPROVEMENTS	Existing Config: 4 lanes - 2 lanes in each direction								√		
RV	S	NORCO	3M0733		15	43.1	44.1	I-15 (PM 43.13 TO 44.13)	at 2nd St	Btwn Hamner Ave & Valley View Ave	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND WIDEN RAMPS	Existing Config: 2 lanes (1 lane in each direction)								√		
RV	S	NORCO	3M04WT005		15	45.1	46.1	I-15 (PM 45.1 TO 46.1)	at 6th St	btwn Hamner Ave & Sierra Ave	RECONSTRUCT INTERCHANGE/RAMPS/CHANNELIZATION IMPROVEMENTS	Existing Config: 4 lanes - 2 lanes in each direction								√		
RV	S	RIVERSIDE COUNTY	RIV050532	RIV05032	15	46.0	47.5	I-15 @ SCHLEISMAN RD	LINDSEY CT	NB ENTRY RAMP	ON I-15 NEAR THE CITY OF NORCO - CONSTRUCT NEW SCHLEISMAN RD IC (6 THROUGH LANES) AND RAMPS (2 LANES) AND NB/SB AUX LANE BETWEEN SCHLEISMAN RD IC AND LIMONITE RD IC	►Schleisman Rd - From Lindsey Ct to NB Entry Ramp -- construct new 6 ln arterial ►I-15/Schleisman Rd NB Exit Ramp -- From I-15 to Schleisman Rd -- Add new SB exit ramp w/1lane at mainline expanding to 3 turn lanes at arterial ►I-15/Schleisman Rd SB Entry Ramp--From Schleisman Rd to I-15 -- Add new SB entry 2 lanes at arterial merging to 1 lane at mainline ►I-15 SB Aux Lnes - From Limonite Ave SB entry ramp to Schleisman Rd SB exit ramp -- Add 1 SB Aux Lane ►I-15/Schleisman Rd SB Exit Ramp - From I-15 to Schleisman Rd -- Add new SB exit ramp with 1 lane at mainline expanding to 3 turn lanes at arterial ►I-15/Schleisman Rd NB Entry Ramp -- From Schleisman Rd to I-15 -- Add new NB entry 2 lanes at arterial merging to 1 lane at mainline into NB Aux lane ►I-15 NB Aux Lanes - From Schleisman Rd NB entry ramp to Limonite Ave exit ramp -- Add 1 NB Aux Lane								√		
RV	S	RIVERSIDE COUNTY	RIV011233	RIV011233	15	47.8	49.1	I-15	LIMONITE AVE INTERCHANGE		AT I-15/LIMONITE AVE IC - WIDEN IC 4 TO 6 LNS, RAMPS 1 TO 2 LNS, ADD 2 LANE LOOP RAMPS IN THE NB AND SB DIRECTIONS & WIDEN LIMONITE AVE FROM HAMNER TO WINEVILLE 4 TO 5 LNS (APPROX 1 MI) (EA: 0E150K)	►WIDEN LIMONITE 4 TO 6 LANES FROM Hammer to Approx 230' west of NB exit ramp ►WIDEN SB and NB Exit RAMPS 1 TO 2 LANES ►WIDEN LIMONITE 4 TO 5 LANES FROM APPROX 230' WEST OF NB EXIT RAMP TO WINEVILLE AVE ►ADD NEW 2 LANE NB AND SB LOOP ENTRY RAMPS WITH ACCEL LANE THAT TRANSITIONS TO 1 LANE AT MAINLINE	√							√		

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	RIVERSIDE COUNTY	32750	32750	15	48.3	51.5	I-15	GALENA STREET		IN NW RIV CO AT I-15/GALENA ST - CONSTRUCT NEW IC (6 LNS) & RAMPS PLUS 2 NB AUX LANES TO JCT SR60 AND CONSTRUCT 4 LANE GALENA ST CONNECTING RD FROM HAMNER AVE TO WINEVILLE RD	CONSTRUCT NEW IC (6 LNS) & RAMPS PLUS 2 NB AUX LNS TO JCT SR60	√	√	√							
RV	S	RIVERSIDE COUNTY	3M10WT02	RIV10105	15	29.2	29.6	I-215 (PM 29.2 TO 29.6)	at Indian Truck Trail	Indian Wash Channel UC (0.5 km north of Indian Truck Trail UC)	IN WESTERN RIVERSIDE COUNTY, WIDEN INDIAN TRUCK TRAIL AT I-15 FROM 2 TO 4 LANES, INCLUDING DEDICATED LEFT-TURN LANES TO NB AND SB ON RAMP; WIDEN THE SB EXIT RAMP FROM 1 TO 3 LANES, AND WIDEN THE NB EXIT RAMP AND ENTRY RAMP FROM 1 TO 3 LANES	EXISTING CONDITIONS: THE EXISTING UC INCLUDES TWO THROUGH LANES (ONE IN EA DIR); 1 SB EXIT RAMP; 1 SB ON-RAMP; ONE NB EXIT RAMP; AND 1 NB ENTRY RAMP.		√				√				
RV	S	CALTRANS	3A04A26		15	49.4	0.0	I-15	at Bellegrave Ave	btwn Hamner Ave & Wineville Rd	ADD SIGNALS AND RAMPS. 0.1 MI.										√	
RV	S	CALTRANS	3M0702		15	51.5	52.8	I-15	SR-60 (51.5)	San Bernardino County Line (52.8)	ALSO SBD-15-0.0/2.39 ROUTE 60 TO I-10 ADD & EXTEND AUX LANES (EA:0C350) (ALSO SEE 3M01MA06)										√	
RV	S	RIVERSIDE COUNTY	3M01WT019		60	0.0	0.0	SR-60		Canyon Road	RECONSTRUCT/WIDEN IC, RAMPS AND CHANNELIZATION IMPROVEMENTS										√	
RV	S	CALTRANS	354801	354801	60	0.5	8.5	SR-60	JCT ROUTE 15	VALLEY WAY	JCT RTE 15 TO VALLEY WAY UC - ADD 1 HOV AND 1 M/ F LN IN EA. DIR. INCLUDING OPERATIONAL STRIPING (IN SBD CNTY 9.05 - 9.95 & AT THE EAST END) ALSO WIDEN 5 UC'S & 1 OH (PPNO: 0033)	ADD 1 HOV LANE AND 1 MIXED FLOW LANE IN EA. DIRECTION	√	√		√						
RV	S	CALTRANS	3M04SH11		60	0.9	11.9	SR-60	0.4 mi e/o I-15/SR-60 IC	0.2 mi e/o Main St	ADD AUXILIARY LANES BOTH DIRECTIONS					√						
RV	S	CALTRANS / RIVERSIDE COUNTY	3M01WT020		60	2.5	3.5	SR-60 (PM 2.53 TO 3.53)	at Mission Blvd	btwn Granite Hill Dr & Sevaine Way	RECONSTRUCT INTERCHANGE/RAMPS										√	
RV	S	RIVERSIDE COUNTY	RIV990701	RIV990701	60	6.7	7.5	SR-60 @ VALLEY WY IC	MISSION BLVD	GRANITE HILL DR	SR60/VALLEY WAY IC - RELOCATE EB OFF-RAMP (1 TO 2 LANES) AND ADD NEW EB ON-RAMP (2 LANES), SIGNALS & WIDEN VALLEY WAY/MISSION BLVD INTERSECTION.	RELOCATE EB OFF RAMP 1 TO 2 LANES. CONSTRUCT NEW EB ON RAMP - 2 LANES	√	√			√					
RV	S	RIVERSIDE COUNTY	3A04A29		60	9.1	10.1	SR-60 (PM 9.06 TO 10.06)	at Rubidoux Blvd	btwn 30th & 34th Sts	RECONSTRUCT/WIDEN IC, RAMPS AND CHANNELIZATION IMPROVEMENTS	Existing Configuration: 4 lanes (2 lanes in each direction)								√		
RV	S	RIVERSIDE COUNTY	3A04A30		60	9.5	10.5	SR-60 (PM SBD 9.46 TO 10.46)	at Milliken Ave	btwn Harrel Ave & Iberia	RECONSTRUCT/WIDEN IC, RAMPS, AND CHANNELIZATION IMPROVEMENTS	Existing Configuration: 4 lanes (2 lanes in each direction)								√		
RV	S	RIVERSIDE, CITY OF	3M04WT018		60	11.2	12.2	SR-60 (PM 11.23 TO 12.23)	at Main St	btwn Russell St & Stoddard Ave	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS, CHANNELIZATION IMPROVEMENTS	Existing Configuration: 4 lanes								√		
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	46360	46360	60	12.2	20.4	SR-60	RTE-215	REDLANDS BLVD	IN RIVERSIDE AND MORENO VALLEY ON SR60 FROM RT 215 TO REDLANDS BLVD ADD 2 HOV LANES	ADD 2 HOV LANES	√	√		√						
RV	S	MORENO VALLEY	3M04WT017		60	14.8	15.8	SR-60 (PM 14.84 TO 15.84)	at Heacock St	btwn Hemlock Ave & Sunnymead Blvd	WIDEN/RECONSTRUCT IC, RAMPS, AND CHANNELIZATION IMPROVEMENTS. NO ADDITIONAL LANES PLANNED	Existing Config: Arterial - 2 through lanes plus dedicated left turn lane in each direction. Ramps - Type L-1, EB off - 3 lanes, EB on - 1 lane, WB off - 1 lane, WB on - 2 lanes								√		
RV	S	MORENO VALLEY	3M0713		60	15.9	16.9	SR-60 (PM 15.85 TO 16.85)	at Perris Blvd	btwn Sunnymead Blvd & Ironwood	RECONSTRUCT/WIDEN ARTERIAL FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS (NO ADDITIONAL LANES PLANNED)	Existing Config: Arterial - 2 through lanes each direction. SB - dedicated rt and lt turn lanes. NB - dedicated lt lane. Type L-4, EB off - 2 lanes, EB on - 1 lane, WB off - 1 lane, WB on - 2 lanes								√		
RV	S	MORENO VALLEY	RIV041052 (Part 1 of 2)	RIV041052 (Part 1 of 2)	60	18.8	19.8	SR-60 @ NASON ST INTERCHANGE	NASON ST: ELDER MORENO BEACH DR: JUST BEYOND NORTHSIDE RAMPS	NASON ST: FIR MORENO BEACH DRIVE: JUST BEYOND SOUTHSIDE RAMPS	SR60/NASON ST IC + MORENO BEACH DR IC: WIDEN NASON ST OC FROM 2 TO 4 THROUGH LANES; MODIFY MORENO BEACH DR IC - WIDEN FROM 2 TO 6 THROUGH LANES, REALIGN/WIDEN RAMPS (EB EXIT 1 TO 3 LANES, EB ENTRY 1 TO 2 LANES, WB EXIT 1 TO 2 LANES), ADD NEW WB ENTRY RAMP (2 LANES), AND ADD EB/WB AUX LANE (EA: 323010)	Cross Street References: - Nason St: Elder Ave n/o SR60 south to Fir Ave Nason St arterial through lanes: 4 (2 lanes in each direction) - Moreno Beach Dr: Just beyond WB exit ramps n/o SR60 south to EB exit ramp/Eucalyptus Ave Moreno Beach Dr arterial through lanes: 6 (3 lanes in each direction) Moreno Beach Dr IC Ramps: - EB exit ramp: 3 lanes (1 lane off EB aux lane to 2 lanes at mainline expanding to 3 turning lanes at arterial - EB entry ramp: 2 lanes (2 lanes at arterial merging back to 1 lane for entry onto mainline) - WB exit ramp: 2 lanes: (1 lane ramp to 2 lanes at mainline expanding to-3 turning lanes at arterial) - WB loop entry ramp: 2 lanes at arterial merging into 1 lane at the start of the WB aux lane as the ramp joins the mainline. - New WB entry ramp: 2 lanes Add new on ramp with 1 GP lane and 1 HOV lane, merging back to 1 lane which merges into the WB aux lane	√	√					√			

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	MORENO VALLEY	RIV041052 (Part 2 of 2)	RIV041052 (Part 2 of 2)	60	18.9	19.8	SR-60 @ NASON ST INTERCHANGE	NASON ST: ELDER MORENO BEACH DR: JUST BEYOND NORTHSIDE RAMPS	NASON ST: FIR MORENO BEACH DRIVE: JUST BEYOND SOUTHSIDE RAMPS	SR60/NASON ST IC + MORENO BEACH DR IC: WIDEN NASON ST OC FROM 2 TO 4 THROUGH LANES; MODIFY MORENO BEACH DR IC - WIDEN FROM 2 TO 6 THROUGH LANES, REALIGN/WIDEN RAMPS (EB EXIT 1 TO 3 LANES, EB ENTRY 1 TO 2 LANES, WB EXIT 1 TO 2 LANES), ADD NEW WB ENTRY RAMP (2 LANES), AND ADD EB/WB AUX LANE (EA: 323010)	Auxiliary Lanes: - 1 EB Aux lane-add 1 EB aux lane from end of EB on ramp to terminate at the exit gore for the EB off ramp at Moreno Beach Dr. - 1 WB Aux lane from from Moreno Beach Dr IC entry ramp and continues west halfway to Nason St IC Add 1 WB aux lane from the join point w/aux lane constructed w/Moreno Project 1425' W/O Moreno Beach Dr) to a pint 800' W/O the WB exit ramp at Nason St. - Net aux lane addtion between Nason St ramp project (32300) and Moreno Beach Dr IC/Nason St IC project (RIV041052) results in 1 EB and 1 WB aux lane between both ICs with lane drop tapers beginning after the exit ramps.	√	√				√			
RV	S	MORENO VALLEY	32300	32300	60	18.1	18.9	NASON ST	Elder	Fir	AT SR60/NASON ST IC - MODIFY/RECONSTRUCT IC & NASON ST FROM ELDER TO FIR: REALIGN EB, WB EXIT PLUS EB & WB ENTRY RAMPS, ADD EB & WB RAMP HOV LNS, & ADD AUX LANES (EB FROM ON-RAMP HALFWAY TO MORENO BEACH; WB HALFWAY FROM MORENO BEACH TO NASON) (EA: 32300)	Existing OC through lanes: 2 (1 in each direction) Existing ramp lanes: 1 Improvement ramp lanes: 2 single lane exit widens to 2 lanes for body of the ramp and 3 lanes at ramp terminal. Entry ramps: EB entry ramp, reconstruct 300' of the EB on ramp at the connection to Nason St, but no changes to the existing 2-lane on ramp configuration; WB entry Ramp -- No changes to the existing WB on ramp (current configuration is 2 lane loop on-ramp transitioning to a 1 lane ramp at the few & joing an exisitng 600' long WB aux lane. Exit ramps provide dedicated left and right turn lanes Aux lanes: EB aux lane from entry ramp extends about halfway to nex IC ((Moreno Breach Dr IC). WB aux lane for exit ramp will start approx halfway from Moreno Beach Dr IC and terminate at Nason St exit ramp. Other Notable: Major re-alignment of ramps. EB exit and entry hook ramps realiged with diamond ramps configuration. WB exit and entry hook ramps realigned and diamond exit ramp configuration and loop entry ramp.	√	√				√			
RV	S	MORENO VALLEY	32300	RIV090117	60	17.0	18.9	NASON ST	ELDER AVE	FIR AVE	IN MORENO VALLEY AT SR60/NASON IC WIDEN NASON ST OC FROM 2 TO 4 THROUGH LANES FROM ELDER AVE TO FIR AVE	WIDEN ELDER AVE TO FIR AVE FROM 2 TO 4 LANES RAMP: SR60/NASON ST. WB AUX LANE @ NASON STREET ADD 1 WB AUX LANE FOR APPROX 553'		√				√				
RV	S	MORENO VALLEY	3M0712	RIV080902	60	19.0	21.0	SR-60 (PM 19 TO 21)	at Redlands Blvd	from Spruce Ave & to Fir Ave	WIDEN ARTERIAL FROM 2 TO 6 LANES. RAMP AND AUX LANE IMPROVEMENTS.	**Existing Config:** - Arterial - 2 through lanes. Ramps - Type L-8, 2 lanes - 1 lane in each direction **Ramps:** - widen WB exit from 1 lane to 2 lane exit widening to 3 lanes - widen WB entry from 1 lane to 3 lanes at intersection and 2 lanes at entry (with HOV) - widen EB exit from 1 lane to 2 lane exit widening to 3 lanes - widen EB entry from 1 lane to 2 lanes at intersection and 2 lanes at entry (with HOV) **Auxiliary lanes:** - add aux lanes west of Redlands 1000' EB and WB - add aux lanes east of Redlands 1700' EB and 1700' WB.							√		
RV	S	MORENO VALLEY	3M0801	RIV080904	60	20.0	22.0	SR-60	AT THEODORE ST		AT SR-60/THEODORE ST IC: WIDEN OC FROM 2 TO 6 THRU LANES; WIDEN WB EXIT/ENTRY RAMPS FROM 1 LN TO 2 LNS AT EXIT/ENTRY, 3 LNS AT ARTERIAL W/ HOV AT ENTRY; WIDEN EB EXIT RAMP FROM 1 LN TO 2 LNS AT EXIT AND 3 LNS AT ARTERIAL; WIDEN EB ENTRY RAMP FROM 1 LN TO 2 LNS W/HOV; ADD EB LOOP ENTRY WITH 2 LNS AT ARTERIAL AND 1 LN AT ENTRY; ADD AUX LNS 1700' EACH DIR WEST OF IC & 1200' EB AND 2200' WB EAST OF IC	Arterial: - Theordore St from Ironwood to Fir Ave widen from 2 to 6 lanes Ramps: - widen WB exit from 1 lane to 2 lane exit widening to 3 lanes at intersection - widen WB entry from 1 lane to 3 lanes at intersection and 2 lanes at entry (with HOV) - widen EB exit from 1 lane to 2 lane exit widening to 3 lanes at intersection - widen EB entry from 1 lane to 2 lanes at intersection and 2 lanes at entry (with HOV) - add EB loop entry with 2 lanes at entry and 1 lane at entry (with HOV) Auxiliary Lanes: - add auxilliary lanes west of Theodore 1700' EB and WB - add auxiliary lanes east of Thoedore 1200' EB and 2200' WB.							√		

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	MORENO VALLEY	3M0714	RIV080903	60	21.0	23.0	SR-60 (PM 21 TO 23)	at Gilman Springs Road	btwn n/b & s/b on/off ramps	WIDEN AND REALIGN OVERCROSSING FROM 2 TO 6 LANES. RAMP AND AUX LANE IMPROVEMENTS.	Existing Config: - Arterial - 2 through lanes. Ramps - Type L-12, 2 lanes - 1 lane in each direction Arterial: - Widen Gilman Springs Rd from Eucalyptus St. to Ramps N/O SR-60 from 2 to 6 lanes Ramps: - widen WB exit from 1 lane at exit to 2 lane after exit widening to 3 lanes (no HOV) - widen WB entry from 1 lane to 2 lanes at intersection and 2 lanes at entry (with HOV) - widen EB exit from 1 lane to 2 lane exit widening to 3 lanes (no HOV) - widen EB entry from 1 lane to 2 lanes at intersection and 2 lanes at entry (with HOV) Auxiliary lanes: - add auxilliary lanes between Theodore and Gilman Springs Rd 1200' EB and 2200' WB.							√		
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	3TK04MA13		60	22.1	30.0	SR-60	Badlands area east of Moreno Valley (Near Gilman Springs Rd)	Badlands area - west of SR-60/I-10 Jct	ADD EASTBOUND TRUCK CLIMBING LANE	Existing Config: 2 MF lanes in each direction								√		
RV	S	BEAUMONT / RIVERSIDE COUNTY	RIV050535 (Part 1 of 2)	RIV050535 (Part 1 of 2)	60	28.0	30.2	SR-60	at SR60 approx 1 mile west of I-10/SR60 Jct	btwn nrth of SR60 south to &1st St then east to SR79	ON SR60 AT APROX PM 28.90 BETWEEN JACK RABBIT TR AND SR60/I-10 JCT: CONSTRUCT NEW 6 THROUGH LANE POTRERO BLVD IC (3 LANES EACH DIRECTION) AND WB/EB EXIT & ENTRY RAMPS (2 LANES), CONSTRUCT WB AND EB LOOP ENTRY RAMPS (2 LANES), (ENTRY RAMPS INCLUDE HOV LANE), INCLUDE EXTENDED RAMP ACCLERATION/DECELERATION LANES, AND REMOVE WESTERN KNOLLS AVE FRONTAGE ROAD/CONNECTION (EA: 34140)	Existing Config: No facility Cross street references: North ramps to south ramps. Nearest major arterial cross streets will be Heartland Pkwy South n/o SR60 and to 4th St s/o SR60. Arterial through lanes: 6 lanes (3 lanes in each direction) Arterial through lanes before and after project limits: - North of SR60: 6 lanes up to San Timoteo Cyn/Oak Valley Pkwy. Project is being accomplished as a separate locally funded project. - South of SR60: New arterial connection 4 lanes south and then east to eventually connect to SR79. Arterial project programmed in RIV070702.	√	√				√				
RV	S	BEAUMONT / RIVERSIDE COUNTY	RIV050535 (Part 2 of 2)	RIV050535 (Part 2 of 2)	60	28.0	30.2	SR-60	at SR60 approx 1 mile west of I-10/SR60 Jct	btwn nrth of SR60 south to &1st St then east to SR79	ON SR60 AT APROX PM 28.90 BETWEEN JACK RABBIT TR AND SR60/I-10 JCT: CONSTRUCT NEW 6 THROUGH LANE POTRERO BLVD IC (3 LANES EACH DIRECTION) AND WB/EB EXIT & ENTRY RAMPS (2 LANES), CONSTRUCT WB AND EB LOOP ENTRY RAMPS (2 LANES), (ENTRY RAMPS INCLUDE HOV LANE), INCLUDE EXTENDED RAMP ACCLERATION/DECELERATION LANES, AND REMOVE WESTERN KNOLLS AVE FRONTAGE ROAD/CONNECTION (EA: 34140)	**Ramps:** - EB exit ramp: 2 lanes (1 lane off mainline quickly expanding to 2 lanes as extended deceleration lanes (approx 1,300') and remaining 2 lanes until arterial) - EB entry ramp: 2 lanes (2 lanes off arterial including HOV preferential lane merging back to 1 lane for entry onto mainline) - EB entry loop ramp: 2 lanes (2 lanes off arterial including HOV preferential lane merging back to 1 lane for entry onto mainline) - WB exit ramp: 2 lanes (1 lane off mainline quickly expanding to 2 lanes as extended deceleration lanes (approx 1,300') and remaining 2 lanes until arterial) - WB entry ramp: 2 lanes (2 lanes off arterial including HOV preferential lane merging back to 1 lane for entry onto mainline) - WB entry loop ramp: 2 lanes (2 lanes off arterial including HOV preferential lane merging back to 1 lane for entry onto mainline)	√	√				√				
RV	S	CALTRANS	44651	44651	71	0.0	2.7	SR-71	SAN BERNARDINO COUNTY LINE	SANTA ANA RIVER BRIDGE	NEAR CORONA/CHINO HILLS FROM SBD CO LINE TO SANTA ANA RIVER BRIDGE- WIDEN TO 4 LANE DIVIDED EXPRESSWAY-- (WERE 2 LANES NOW 4) INCLUDING 2 ADDITIONAL ANIMAL CROSSINGS (PPNO: 0048B)	WIDEN TO 4 LN DIVIDED EXPWY (FROM 2 TO 4 LANES)	√	√	√							
RV	S	CALTRANS	35641	35641	71	2.6	3.0	SR-71	SANTA ANA RIVER BRIDGE	ROUTE 91	NEAR CORONA FROM SANTA ANA RIVER BRIDGE TO ROUTE 91; BRIDGE WIDENING FROM 2 TO 4 LANES AND RAMP MODIFICATION (EA 356411 COMBINED WITH EA 446531 TO FORM EA 3564U0)	BRIDGE WIDENING FROM 2 TO 4 LANES AND RAMP MODIFICATION	√	√	√							
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	3M01MA09		71	3.0	8.5	SR-71	SR-91	San Bernardino County Line	WIDEN TO 3 MF LANES EACH DIRECTION	Existing Config: 1 MF in each direction										√
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	46410	46410	74	17.3	25.8	SR-74	JCT ROUTE 15	7TH STREET (IN Perris)	IN PERRIS AND LAKE ELSINORE WIDEN AND REALIGN FROM 2 TO 4 LANES FROM JCT RT 15 TO 7TH ST IN PERRIS	WIDEN FROM 2 TO 4 LANES	√	√	√							
RV	S	RIVERSIDE COUNTY	3A04SH12		79	5.9	15.6	SR-79	Hunter Rd	Domenigoni Pkwy	WIDEN FROM 4 TO 6 LANES	RTIP#46460 widens to 4 lanes from Thompson to Domenigoni and Hunter to Thompson widening 2 to 4 lanes has now been completed)								√		
RV	S	RIVERSIDE COUNTY	46460	46460	79	8.4	15.8	SR-79	THOMPSON RD	DOMENIGONI PARKWAY	IN WESTERN RIVERSIDE COUNTY ON STATE ROUTE 79 - WIDEN FROM 2 TO 4 LANES FROM THOMPSON RD TO DOMENIGONI PKWY	WIDEN FROM 2 TO 4 LANES (2 LANES IN EACH DIRECTION)	√	√					√			

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	RIV62024	RIV62024	79	15.8	33.8	SR-79	Approx 2.0 KM South of Domenigoni Pkway North	To Gilman Springs Road	ON SR79 IN SOUTHWESTERN RIVERSIDE COUNTY BETWEEN 2.0 KILOMETERS SOUTH OF DOMENIGONI PKWY TO GILMAN SPRINGS ROAD: REALIGN AND WIDEN SR79 FROM 2 TO 4 THROUGH LANES	EXISTING CONDITIONS: Arterial through lanes: 2 (1 lane in each direction) **IMPROVEMENTS:** Cross street references: From approx 2.0 KM s/o Domenigoni Pkwy north to Gilman Springs Rd Arterial through lanes: 4 (2 lanes in each direction)	√						√		
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	3A04SH12A		79	15.8	33.8	SR-79	Domenigoni Pkwy (R15.6)	Gilman Springs Rd. (M32.6)	REALIGNMENT/WIDENING 4 TO 6 LANES	Existing Config: 2 lanes (1 lane in each direction)										√
RV	S	TEMECULA	RIV62029	RIV62029	79	19.4	19.4	SR-79 SOUTH	AT LA PAZ		AT HWY 79 SO AND LA PAZ ST: ACQUIRE LAND, DESIGN AND CONSTRUCT PARK-AND-RIDE LOT - 250 SPACES (FY 05 HR4818 EARMARK)	CONSTRUCT PARK AND RIDE - 250 SPACES	√					√				
RV	S	RIVERSIDE COUNTY	3M0723		79	25.7	28.3	SR-79 (HEMET BYPASS)	at SR-74 (Florida Ave)	west of Hemet (between Warren Ave and 1/2 mile westof SR79/SR74 intersection)	CONSTRUCT NEW 6 LANE I/C AND RAMPS									√		
RV	S	RIVERSIDE COUNTY	3M0718		79	29.8	30.8	SANDERSON AVE (SR-79) (PM 29.83 TO 30.83)	at Ramona Expressway (SR-79)	btwn N.Ramona Blvd and Ramona Exp.	CONSTRUCT NEW 6 LANE I/C AND RAMPS										√	
RV	S	COACHELLA / CALTRANS	RIV061159	RIV061159	86	0.0	0.0	SR-86S / AVE 50	BTWN CALLE MENDOZA TO WEST OF TYLER AVE		AT SR86/AVENUE 50: WIDEN AND CONSTRUCT NEW 4 THROUGH LANE IC AND RAMPS (1 LANE) BTWN APPROX W/O MIMOSA TO E/O TYLER ST INCLUDING 4 THROUGH LANE BRIDGE OVER COACHELLA STORM DRAIN, RELOCATE/REALIGN AVE 50 AND TYLER ST AND INCLUDE EXTENDED RAMP ACCELERATION/DECELERATION RAMP LANES (SAFETEA LU 1702, CA583, #2543) (EA: 0C970)	Cross street references: West of Mimosa east across SR86S and onto Tyler St and Ave 50 - Arterial through lanes: 4 (2 lanes in each direction) - NB and SB exit ramps: 1 lane - NB and SB entry ramps: 1 lane - Acceleration lanes: Entry ramps included an extended acceleration lane added to SR86S in both directions from NB and SB entry ramps approx ½ mile merging/terminating for entry onto SR86S - Deceleration lanes: Exit ramps include an extended deceleration lane (approx ½ mile) on SR86S in both directions off SR86S and terminating into NB and SB exit ramps	√						√			
RV	S	CALTRANS	42814	42814	86	3.2	5.2	SR-86S	0.2 KM S/O AVENUE 81	0.2 KM N/O AVENUE 78	NEAR OASIS FROM O.2 KM S/O AVENUE 81 TO 0.2 KM N/O AVENUE 78 - CONSTRUCT 2 LANE FRONTAGE ROADS ON EITHER SIDE OF RT 86	CONSTRUCT 2 LANE FRONTAGE ROADS ON EITHER SIDE ON RT 86	√	√	√							
RV	S	CALTRANS / RIVERSIDE COUNTY	0E620K		86	10.6	11.4	SR-86S (PM 10.6 TO 11.4)	at SR195 (Ave 66) near Mecca	Btwn Pierce St and Lincoln St	CONSTRUCT NEW 4 LANE IC AND RAMPS	Existing Config: at grade 2 lane crossing at SR86S Ramps: ►SR195 from Westerly of SR86S intersection to Westerly of the bridge -- widen from 2 to 4 lanes ►SR195 from Easterly of the bridge to Easterly intersectin -- widen from2 to 4 lanes ►SR195 from Westerly of the bridge to Easterly of the bridge -- widen from 2 to 4 lanes ►SR195 from Easterly intersection to East of Travel Center -- widen from 2 to 4 lanes ►SR86S/Ave 195 NB Entry Loop Ramp -- add new 1 lane NB entry loop ramp ►SR195 from Buchanan ST to Westerly of SR86S intersection -- widen from 2 to 4 lanes ►SB86S/SR195 from SR-195 Easterly Intersection to SR-86S -- add new 1 lane NB entry ramp ►SR-86S/SR195 from SR-86S to SR195 -- add new 1 lane NB exit ramp, transitioning to 2 lanes 700' south of the easterly intersection ►SR86S/SR195 -- add new 1 lane SB exit ramp, expanding to a 2 lane 875' north of the westerly intersection ►SR86S/SR195 --add new 1 lane SB entry ramp							√			
RV	S	CALTRANS	3M0706		86	12.9	13.3	SR-86S (PM 12.9 TO 13.3)	Near Coachella, SR-86S	at Ave. 62	RECONSTRUCT INTERCHANGE/RAMPS CONSTRUCT A 4 LANE SPREAD DIAMOND IC W/ 4 RAMPS 2 LANE ENTRANCE RAMPS AND 1 LANE EXIT RAMPS (EA 0J530)								√			
RV	S	CALTRANS	RIV060101	RIV060101	86	15.6	17.8	SR-86S	AT AIRPORT BLVD (AVE 56)		AT SR86S/AIRPORT BLVD (AVE 56): CONSTRUCT NEW IC (3 LANE OC: 1 LANE EACH DIR + 1 MEDIAN LANE) AND RAMPS (1 LANE) FROM APPROX DESERT CACTUS DR TO 57TH AVE (EA: 47860, PPNO: 0078L)	CONSTRUCT 3-LANE OC (1 LN EACH DIR + 1 MEDIAN LN) FROM APPROX. DESERT CACTUS DR TO 57TH AVE; AND RAMPS (1 LN)	√	√				√				
RV	S	COACHELLA / CALTRANS	3M01CV03		86	17.8	18.8	SR-86 (PM 17.81 TO 18.81)	at Ave 54	btwn SR-111 & Fillmore	CONSTRUCT 4 LANE BRIDGE/INTERCHANGE AND RAMPS ACROSS SR-86	Existing Config: at grade 2 lane crossing at SR86S									√	

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	RIVERSIDE COUNTY / CALTRANS	3M0717	RIV071274	86	18.1	20.1	SR-86S (PM 18.1 TO 20.1)	at Avenue 52		AT SR86S/AVENUE 52 (FROM APPROX 1.57 KM S/O AVE 52 TO 0.52 KM S/O AVE 50): CONSTRUCT 2 LANE IC AND RAMPS (2 LANES), REALIGN/RELOCATE POLK ST (APPROX 1 MILE E/O AVE 52/POLK ST INTERSECTION) AND AVE 52 (APPROX ½ MILE E/O POLK ST), INCLUDE EXTENDED RAMP ACCELERATION/DECELERATION LANES	Existing Configuration: at grade 2 lane crossing at SR86S Ramps: ►SR-86S/AVE 52 NB Exit Ramp -- add new NB exit ramp with 1 lane of mainline expanding to 2 turn lanes at arterial ►SR86S/AVE 52 SB Exit Ramp -- add new SB exit ramp with 1 lane off mainline expanding to 2 turn lanes at arterial ►SR-86S/Ave 52 SB Entry Ramp -- add new SB entry ramp with 2 lanes at arterial merging to 1 lane at mainline ►SR-86S/Ave 52 NB Entry Ramp -- add new NB entry ramp with 2 lanes at arterial merging to 1 lane at mainline ►SB-86S/Ave 52 Entry and Exit Ramps -- add extended accel/decel lanes to entry and exit ramps							√		
RV	S	COACHELLA / CALTRANS	3M0716		86	21.0	22.0	SR-86S (PM 21.02 TO 22.02)	at Dillon Rd	Btwn west of Coachella Storm Water Channel and Avenue 47	RECONSTRUCT/WIDEN IC FROM 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Config: 2 lanes 1 lane in each direction (IC widening susequent to Dillon Rd arterial widening to 4 lanes in RIV011209)								√		
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	RIV071250	RIV071250	91	0.0	13.0	SR-91	SR-241 (ORANGE CO)	E/O I-15	2/3/4 Lanes from main SR-91 - Construct 1 mixed flow lane and 1 auxiliary lane in each direction at various locations (SR-241 - Pierce St) (OC PM 14.43 - 18.91), CD System (2/3/4 Lanes from Main– I-15), 1 HOT lane & convert HOV lane to HOT lane each direction (OC to I-15) I-15 - Construct HOT median direct connector junction SR-91/I-15 from NB I-15 to WB SR-91/EB SR-91 to SB I-15/SB I-15 to WB SR-91/EB SR-91 to NB I-15; 1 HOT lane each direction from Hidden Valley Pkwy to Cajalco Rd (I-15 PM 35.64 - 45.14)	EXISTING CONDITIONS: SR91: 3 & 4 MF lns ea dir from SR241 in OC to e/o I-15 + 1 and 2 HOV/HOT lanes I-15: 3 MF lanes in ea dir IMPROVEMENTS: - SR91: Add 1 MF ea dir from SR241 to Pierce St - SR91: Add aux lanes ea dir btwn each IC where feasible not proceeding thru ICs from Sr241 to Pierce St. Aux lanes in OC portion are being completed by OCTA. - SR91: Add Collector Distributor lane system in ea dir (2/3/4 lanes from Main - I-15 - SR91: Add 1 HOT ln & convert 1 HOV ln to a HOT ln in ea dir from OC line to I-15 - I-15: Construct 2 lane HOV/HOT Median Direct Connector at SR91/I-15 Jct (NB I-15 to WB SR91 and EB SR91 to SB I-15; SB I-15 to WB SR-91 and EB SR-91 to NB I-15) - I-15: Construct 1 HOV/HOT lane from Hidden Valley Pkwy south to Cajalco Rd	√							√		
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV070308	RIV070308	91	0.6	2.6	SR-91	SR-71 (PM 2.0)		AT SR91/71 JCT: REPLACE EB 91 TO NB 71 CONNECTOR W/ DIRECT FLY-OVER CONNECTOR AND CONSTRUCT EB COLLECTOR DISTRIBUTOR SYSTEM (GREEN RIVER TO SR 91/71 JCT) (EA: 0F541)	EB 91 to NB 71 Connector: 2 lanes **EB Braided RampSystem:** - Green River Rd EB 2-lane on ramp - 1-lane slip ramp to SR-71 NB direct connector; 2-lane on ramp aligns under SR-71 NB direct connector and merges on to SR-91 EB as 1 lane	√							√		
RV	S	CALTRANS	45661	45661	91	0.6	1.2	SR-91	AT GREEN RIVER DRIVE INTERCHANGE	ROUTE 71/91 SEPARATION	NEAR CORONA ON RTE 91 FROM GREEN RIVER DR IC TO RTE 71/91 SEPARATION - RECONSTRUCT/REPLACE IC INCLUDING OC WIDENING 3 TO 6 LANES AND WB RAMPS (PPNO:0076B)		√	√	√							
RV	S	CALTRANS	RIV060118	RIV060118	91	2.6	3.8	SR-91	JCT SR91/71	SERFAS CLUB DR	ON SR91 THROUGH CORONA: RESTRIPE EASTBOUND INSIDE SHOULDER TO PROVIDE AN AUXILIARY LANE FROM JCT SR91/71 TO SERFAS CLUB DR (EA: 0H770)	RESTRIPE TO ADD AUXILIARY LANE EASTBOUND	√			√						
RV	S	CORONA	RIV060106	RIV060106	91	3.7	3.7	SR-91 @ SERFAS CLUB DR IC	WARDLOW	FRONTAGE ROAD	AT SR91/SERFAS CLUB DR IC: WIDEN UC ARTERIAL (BTWN WARDLOW & FRONTAGE) 5 TO 6 LNS (FOR 2ND LEFT-TURN LN), ADD SB RIGHT-TURN LN TO WB ENTRY RAMP, & WIDEN EB EXIT RAMP 2 TO 3 LNS	WIDEN EB EXIT RAMP 2 TO 3 LANES	√	√						√		
RV	S	CORONA	RIV060107 (Part 1 of 2)	RIV060107 (Part 1 of 2)	91	6.3	6.3	SR-91	AT MAIN ST INTERCHANGE		AT SR91/MAIN ST IC: WIDEN WB ENTRY RAMP AT INTERSECTION 2 TO 3 LNS; WIDEN N. MAIN ST 4 TO 6 LNS (HIDDEN VALLEY PKWY TO PARKRIDGEAVE) PLUS CHANNELIZATION, MEDIAN, & SIDEWALKS	WIDEN WB ON RAMP 2 TO 3 LNS APPROX 900 FEET. LANES MERGE BACK TO SINGLE LANE FOR ENTRY ONTO SR 91	√	√	√							
RV	S	CORONA	RIV060107 (Part 2 of 2)	RIV060107 (Part 2 of 2)	91	6.3	6.3	MAIN ST	HIDDEN VALLEY PKWY	PARKRIDGE AVE	AT SR91/MAIN ST IC: WIDEN WB ENTRY RAMP AT INTERSECTION 2 TO 3 LNS; WIDEN N. MAIN ST 4 TO 6 LNS (HIDDEN VALLEY PKWY TO PARKRIDGEAVE) PLUS CHANNELIZATION, MEDIAN, & SIDEWALKS	ON MAIN STREET (BETWEEN HIDDEN VALLEY PKWY AND PARKRIDGE AVE): WIDEN N. MAIN STREET FROM 4 TO 6 THROUGH LANES PLUS CHANNELIZATION, MEDIAN, & SIDEWALKS	√	√					√			
RV	S	RIVERSIDE, CITY OF	3M01WT024		91	10.6	11.6	SR-91(PM 10.6 TO 11.6)	at Magnolia Ave	btwn Merced Dr & Fillmore St	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	Existing Configuration: 4 lanes								√		
RV	S	CALTRANS	43530	43530	91	11.1	17.4	SR-91	MAGNOLIA AVE	MARY STREET	IN RIVERSIDE ON SR91 FROM MAGNOLIA AVE TO MARY STREET, PORTIONS (3 WB AND 2 EB LOCATIONS) - CONSTRUCT FIVE AUX LANES (NOT THROUGH INTERCHANGES), SOUNDWALLS, AND LANDSCAPING	CONSTRUCT FIVE AUXILIARY LANES (NOT THROUGH INTERCHANGES) 2 WESTBOUND A 2 EASTBOUND.	√	√	√							

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	RIVERSIDE, CITY OF	RIV990702	RIV990702	91	11.5	12.1	SR-91	LA SIERRA AVE IC		SR91 AT LA SIERRA AVE IC - RECONSTRUCT IC TO A SPREAD DIAMOND INCLUDING FWY OC & BNSF RR BRIDGE WIDENING (4 TO 6 LNS), RAMPS, REALIGN DIANA AVE, & ROADWAY IMPROVEMENTS (EA: 32840)	WB exit ramp: Starts at 1 lane then flares to 3 lanes at La Sierra Ave (2 dedicated left turn lanes with 1 dedicated right turn lane). EB exit ramp: Single lane off of SR91 quickly expands to 2 lanes then to 3 lanes at La Sierra Ave (with 2 dedicated right turn lanes and 1 dedicated left turn lane). WB entry ramp: Starts with 3 lanes at La Sierra Ave (with 1 lane appearing to be a dedicated HOV ramp lane) then narrows to 2 with final narrowing to 1 merging into SR91. EB entry ramp: Starts with 3 lanes then narrows to 1 lane and merges into SR91 - Cross street limits: From just past Diana Ave north of the IC south to Indiana Ave EB entry ramp: Starts with 3 lanes then narrows to 1 lane and merges into SR91 - Cross street limits: From just past Diana Ave north of the IC south to Indiana Ave	√	√		√						
RV	S	RIVERSIDE, CITY OF	3M0802		91	12.2	12.9	SR-91	LA SIERRA AVE	TYLER ST	IN THE CITY OF RIVERSIDE ON SR-91, CONSTRUCT EB AUXILIARY LANE FROM LA SIERRA AVE TO TYLER ST.						√					
RV	S	RIVERSIDE, CITY OF	3M01WT026		91	12.9	13.1	SR-91(PM 12.9 TO 13.1)	at Tyler St	btwn Diana Ave & Indiana Ave	RECONSTRUCT/WIDEN IC FROM AND RECONSTRUCT/WIDEN RAMPS	Existing Configuration: 6 lanes								√		
RV	S	RIVERSIDE, CITY OF	RIV0084	RIV0084	91	13.6	14.5	SR-91	AT VAN BUREN BLVD		SR91/VAN BUREN BLVD IC - RECONSTRUCT/WIDEN RAMPS 2 TO 3 LNS (INCLDS WB HOV LANE; NO CHANGE TO EB OFF), WIDEN OC 4 TO 6 LNS (ANDREW TO RUDICILL) & ADD NEW EB ONRAMP (2 LNS) AT INDIANA AVE (EA: 20320)	Existing arterial through lanes: 4 (2 in each direction) Improvement arterial through lanes: 6 (3 in each direction) Ramp Improvements: - WB exit ramp: 3 lanes (2 lanes off mainline (aux lane terminates) expanding to 3 turning lanes at arterial. WB exit ramp was previously widened from 2 lanes to existing 3 lanes) - WB entry ramp: 3 lanes (3 lanes at arterial includes 1 HOV preferential lane merging back to 1 lane and into WB aux lane (which terminates at Tyler St exit ramp) - EB exit hook ramp at Inidana Ave: 3 lanes (1 lane (EB aux lane off mainline expands to 3 turning lanes at arterial) - EB new entry hook ramp: 2 lanes (2 lanes at arterial - does NOT include HOV preferential lane - merging back to 1 lane for entry onto mainline) - EB entry ramp: 3 lanes (3 lanes at arterial - does NOT include HOV preferential lane - merging back to 1 lane and into EB aux lane terminating at Adams St exit ramp)	√	√				√				
RV	S	RIVERSIDE, CITY OF	3M01WT022		91	15.5	15.7	SR-91 (PM 15.50 TO 15.70)	at Adams St	btwn Diana Ave & Indiana Ave	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	Existing Configuration: 4 lanes								√		
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV010212	RIV010212	91	15.6	21.6	SR-91	ADAMS	60/215 IC	ON SR91 - ADAMS TO 60/215 IC: ADD ONE HOV LN IN EA DIR, RESTRIPE TO EXTEND 4TH WB MF LANE FROM 60/215 IC TO CENTRAL OFF-RAMP, RESTRIPE TO EXTEND 5TH WB MF LANE FROM 60/215 IC TO 14TH ST OFF-RAMP, AUX LNS (MADISON-CENTRAL), BRIDGE WIDENING & REPLACEMENTS, EB/WB BRAIDED RAMPS, IC MOD/RECONSTRUCT + SOUND/RETAINING WALLS	HOV Lanes - Add 1 HOV lane WB and EB in each direction from approximately Adams St to Jct SR60/91/I-215. Note: HOV terminates at Jct SR60/91/I-215 and is not a HOV direct connector to NB SR60 or SB I-215 Aux Lanes: - Add 1 EB aux lane beginning at EB Madison Ave entry ramp continuing to and terminating at CentralAve exit ramp - Add 1 WB aux lane beginning at WB Madison Ave entry ramp continuing to and terminating at Central Ave exit ramp	√	√				√				
RV	S	RIVERSIDE, CITY OF	3M01WT023		91	16.2	17.2	SR-91 (PM 16.15 TO 17.15)	at Madison St	btwn Garden St & Indiana Ave	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	Existing Configuration: 4 lanes								√		
RV	S	RIVERSIDE, CITY OF	3M0709		91	17.3	18.3	SR-91 (PM 17.32 TO 18.32)	at Arlington Ave	Btwn Mt Diablo to s/o eastbound entry ramps	RECONSTRUCT/WIDEN IC FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Configuration: 4 lanes								√		
RV	S	RIVERSIDE, CITY OF	3M0710		91	18.4	19.4	SR-91(18.36 TO 19.36)	at Central Ave	btwn Neva Pl and BNSF RR	RECONSTRUCT/WIDEN IC FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Configuration: 4 lanes								√		
RV	S	RIVERSIDE, CITY OF	3M01WT021		91	19.5	20.5	SR-91 (PM 19.50 TO 20.50)	at 14th St	btwn Olivewood Ave & Commerce St	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	Existing Configuration: 4 lanes								√		
RV	S	RIVERSIDE, CITY OF	3M01WT027		91	20.0	20.5	SR-91 (PM 20.02 TO 20.53)	at University Ave/9th St	btwn Lemon St & Vine St	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	Existing Configuration: 4 lanes								√		
RV	S	INDIO	RIV031211	RIV031211	111	31.3	32.3	SR-111	MADISON STREET	JEFFERSON STREET	IN INDIO ON SR111 - WIDEN SR111 FROM 4 TO 6 LANES, INSTALL SIGNALS, CONSTRUCT/ LANDSCAPE MEDIAN, AND STORM DRAIN IMPROVEMENTS FROM MADISON ST TO JEFFERSON ST	WIDEN FROM 4 TO 6 LANES	√	√		√						

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	LA QUINTA	RIV031213	RIV031213	111	32.8	33.5	SR-111	JEFFERSON ST.	ADAMS STREET	IN LA QUINTA ON SR111 FROM JEFFERSON ST TO ADAMS ST - WIDEN FROM 4 TO 6 LANES, CONSTRUCT SHOULDERS, CURBS, GUTTERS, SIDEWALK, 4 HANDICAP RAMPS, AND SIGNAL MODS	WIDEN FROM 4 TO 6 LANES	√	√	√								
RV	S	LA QUINTA	RIV031212	RIV031212	111	33.5	33.8	SR-111	ADAMS STREET	SIMON DRIVE	IN LA QUINTA ON SR111 FROM ADAMS ST TO SIMON DR - WIDEN FROM 4 TO 6 LANES, CONSTRUCT SHOULDERS, CURBS, GUTTERS, SIDEWALK, 4 HANDICAP RAMPS, AND MINOR SIGNAL MODS	WIDEN FROM 4 TO 6 LANES	√	√	√								
RV	S	CATHEDRAL CITY	RIV031210	RIV031210	111	45.1	47.3	SR-111 / EAST PALM CANYON DR	AT WEST CATHEDRAL CANYON CHANNEL BRIDGE		IN CATHEDRAL CITY ON SR111/EAST PALM CYN DR - WIDEN E. PALM CYN DR FROM 4 TO 6 LNS (AT WEST CATHEDRAL CYN CHANNEL BRIDGE) & CONSTRUCT MISSING GAP SIDEWALKS NEAR EAST & WEST CL	WIDEN FROM 4 TO 6 LANES	√	√		√							
RV	S	MURRIETA	3M10WT03	RIV100107	215	R14.25	R14.75	I-215	at Keller Rd		IN SW RIVERSIDE COUNTY, REPLACE TWO-LANE I-215/KELLER RD UNDERPASS WITH FOUR-LANE IC, INCLUDING LEFT TURN LANES IN EACH DIRECTION, AUXILIARY LANES AT THE NB ON-RAMP AND THE SB OFF-RAMP (LENGTH OF THE INDIVIDUAL AUX. LANES IS APPROX. 1/4 MILE), 1-LN NB OFF RAMP, 2-LN NB ON-RAMP W/HOV, 1-LN SB OFF RAMP, AND 2-LN SB ON-RAMP W/HOV.	EXISTING CONDITIONS: THE I-215/KELLER RD. IS CURRENTLY AN UNDERPASS THAT DOES NOT PROVIDE ACCESS TO THE I-215.						√		
RV	S	PERRIS	3M0725		215	0.0	0.0	I-215	at Mid-County Parkway	btwn ramps	CONSTRUCT NEW 2 6 LANE IC AND RAMPS									√		
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	3M0738		215	8.0	10.0	I-215	I-15/I-215 JCT	Murrieta Hot Springs Rd	ON I-215 IN SW RIV CO FROM I-15/215 JCT TO MURRIETA HOT SPRINGS RD: CONSTRUCT A THIRD MIXED FLOW LANE IN EACH DIRECTION (WIDENS I-215 FROM 4 TO 6 MF LANES)								√			
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV070305	RIV070305	215	8.2	16.0	I-215	Murrieta Hot Springs Rd	Scott Rd	ON I-215 IN SW RIV CO FROM MURRIETA HOT SPRINGS RD TO SCOTT RD: CONSTRUCT A THIRD MIXED FLOW LANE IN EACH DIRECTION (WIDENS I-215 FROM 4 TO 6 MF LANES)	WIDEN FROM 4 TO 6 LANES	√	√				√				
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV031219 (I-215 portion)	RIV031219 (I-215 portion)	215	9.0	18.5	I-215			CETAP WINCHESTER TO TEMECULA CORRIDOR: WIDEN TO 4 MF AND 1 HOV EACH DIR FROM NEWPORT RD TO I-15; IMPROVE I-15/I-215 INTERCHANGE		√								√	
RV	S	MURRIETA	RIV62040	RIV62040	215	10.6	11.1	I-215	AT LOS ALAMOS RD INTERCHANGE		ON I-215 AT LOS ALAMOS RD IC: RECONSTRUCT/WIDEN IC 2 TO 6 LNS (3 LNS EACH DIR) FROM HANCOCK AVE TO WHITEWOOD RD, ADD HOV LN TO ON RAMPS (1 TO 2 LNS), WIDEN OFF RAMPS 1 TO 3 LNS (EA: 432801)	WIDEN ON RAMPS 1 TO 2 LANES (ADD HOV LANE) AND OFF RAMPS 1 TO 3 LANES	√	√	√								
RV	S	MURRIETA	RIV010203	RIV010203	215	12.3	12.8	I-215	CLINTON KEITH ROAD INTERCHANGE		AT I-215/CLINTON KEITH RD IC - CONSTRUCT PARTIAL CLOVERLEAF: WIDEN OC 2 TO 6 LNS, RECONSTRUCT RAMPS (WIDENING TO EXISTING NB/SB DIAMOND RAMPS) & CONSTRUCT NEW NB/SB LOOP ON RAMPS	WIDEN OC 2 TO 6 LNS; WIDEN EXISTING NB/SB DIAMOND RAMPS; CONSTRUCT NEW NB/SB LOOP ON RAMPS Cross street references: McElwain Rd west of I-215 east to Antelope Rd Arterial through lanes: 6 lanes (3 lanes in each direction) NB/SB entry ramps: 2 lanes (2 lanes at arterial merging back to 1 lane for entry onto mainline) NB/SB exit ramps: 2 lanes (1 lane off mainline expanding to 2 turning lanes at arterial) New NB/SB loop entry ramps: 2 lane	√	√			√					
RV	S	MURRIETA	RIV060104	RIV060104	215	13.0	13.0	LINNEL LANE @ I-215	MCELWAIN RD	MEADOWLARK LN	IN MURRIETA ON I-215 AT LINNEL LANE: CONSTRUCT NEW 4 LANE (2 LANES EACH DIR) OC FROM MCELWAIN RD TO MEADOWLARK LN INCLUDING SIDEWALKS AND BIKELANES	CONSTRUCT 4 LANE (2 EACH DIR) OC	√	√		√							

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CO	SYS*	LEAD AGENCY	RTP ID	RTIP ID	RTE	BEG PM	END PM	STREET	FROM	TO	DESCRIPTION	ADDITIONAL DETAILS, IF AVAILABLE	2008 RTIP	NO BUILD	NETWORK YR (PROJECT COMPLETION BY)**							
															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	RIVERSIDE COUNTY	RIV011232 (Part 1 of 2)	RIV011232 (Part 1 of 2)	215	15.0	16.0	I-215 @ SCOTT RD IC			AT I-215/SCOTT RD IC: RECONSTRUCT/WIDEN FROM 2 TO 6 THROUGH LANES BTWN E/O ANTELOPE RD & HAUN RD, RECONSTRUCT/WIDEN RAMPS – NB EXIT 1 TO 2 LNS, NB ENTRY 1 TO 3 LNS, SB EXIT 1 TO 4 LNS, SB ENTRY 1 TO 2 LNS, ADD NB EXIT LOOP RAMP (2 LNS) & SB ENTRY RAMP (3 LNS), ENTRY RAMPS INCLUDE HOV LN, RAMPS INCLUDE EXTENDED ACCELERATION/DECELERATION LNS, ADD EXTENDED RIGHT-TURN LNS (EA: 0A020)	**EXISTING CONDITIONS:** - Scott Rd thru lanes: 2 lanes (1 each dir) - Antelope Rd thru lanes: 2 lanes (1 each dir) - Ramps: NB/SB exit ramps: 1 lane - Ramps: NB/SB entry ramps: 1 lane **IMPROVEMENTS:** - Cross street references: From west of Little Reb Place west to Haun Rd/Zeiders Rd - Scott Rd thru lanes: 6 (3 each dir) - Antelope Rd thru lanes: 4 (2 each dir approx ¼ mile north & south of Scott Rd) **Ramps:** - NB exit ramp: 2 lanes (1 off mainline expand to 2 turning lns at arterial. Incl extended decel ln approx 1,600') - NB entry ramp: 3 lanes (3 at arterial merging to 1 for entry onto mainline. Incl HOV preferential ln & extended ramp accel ln (approx 1,600') - SB exit ramp: 4 lanes (1 off mainline expanding to 4 turning lns at arterial. Incl extended decel ln (approx 1,600') - SB entry ramp: 2 lanes (2 off arterial merging back to 1 ln for entry onto mainline. Incl HOV preferential ln & extended accel ln (approx 1,600') - New NB exit loop ramp: 2 lanes (2 off NB exit ramp maintaining 2 turning lns at arterial. Incl extended decel lns (approx 1,600')	√	√					√			
RV	S	RIVERSIDE COUNTY	RIV011232 (Part 2 of 2)	RIV011232 (Part 2 of 2)	215	15.0	16.0	I-215 @ SCOTT RD IC			AT I-215/SCOTT RD IC: RECONSTRUCT/WIDEN FROM 2 TO 6 THROUGH LANES BTWN E/O ANTELOPE RD & HAUN RD, RECONSTRUCT/WIDEN RAMPS – NB EXIT 1 TO 2 LNS, NB ENTRY 1 TO 3 LNS, SB EXIT 1 TO 4 LNS, SB ENTRY 1 TO 2 LNS, ADD NB EXIT LOOP RAMP (2 LNS) & SB ENTRY RAMP (3 LNS), ENTRY RAMPS INCLUDE HOV LN, RAMPS INCLUDE EXTENDED ACCELERATION/DECELERATION LNS, ADD EXTENDED RIGHT-TURN LNS (EA: 0A020)	- New SB entry loop ramp: 3 lanes (3 lanes off arterial merging back to 1 lane for merge into SB entry ramp acceleration lane. Include HOV preferential lane **Extended Dedicated Right-Turn Lanes on Scott Rd:** - Add 1 EB dedicated right-turn lane starting e/o Haun Rd and terminating at SB entry ramp. - Add 1 EB dedicated right-turn lane starting just after SB entry ramp and continuing to and terminating at Antelope Rd - Add 1 EB dedicated right-turn lane starting after NB exit ramp and terminating at Antelope Rd. (2 total dedicated right-turn lanes exist from NB exit ramp to Antelope Rd) - Add 1 WB dedicated right-turn lane starting e/o Antelope Rd and continuing to and terminating at NB entry ramp. - Add 1 WB dedicated right-turn lane just after Antelope Rd continuing to and terminating at NB entry ramp. - Add 2 WB dedicated right-turn lanes starting just w/o NB loop exit ramp continuing to and terminating at SB loop entry loop ramp.	√	√					√			
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV070309	RIV070309	215	14.2	28.5	I-215	SCOTT RD	NUEOVO RD	ON I-215 IN SW RIV CO FROM SCOTT RD TO NUEVO RD IC: CONSTRUCT A THIRD MIXED FLOW LANE IN EACH DIRECTION (WIDENS I-215 FROM 4 TO 6 LANES)		√							√		
RV	S	RIVERSIDE COUNTY / CALTRANS	3A04A27		215	16.0	17.0	I-215 (PM 15.95 TO 16.95)	at Garbani Rd	btwn Haun Rd & Antelope Rd	CONSTRUCT NEW INTERCHANGE - ADD 4-LANE OVERPASS AND RAMPS. 0.1 MI. CONSTRUCT NEW 4 LANE (2 LNS EAC DIR) AND RAMPS	New facility									√	
RV	S	RIVERSIDE COUNTY	RIV050534 (Part 1 of 2)	RIV050534 (Part 1 of 2)	215	17.4	19.3	I-215	E/O ANTELOPE ROAD	HAUN ROAD	AT I-215/NEWPORT RD IC: RECONSTRUCT/WIDEN FROM 4 TO 6 THROUGH LANES BETWEEN HAUN RD AND ANTELOPE RD, RELOCATE NB AND SB EXIT RAMPS (3 LANES), RECONFIGURE NB & SB ENTRY RAMPS TO INCLUDE HOV LANE, ADD NEW NB AND SB LOOP ENTRY RAMPS (2 LANES), INCLUDE EXTENDED RAMP ACCELERATION/DECELERATION LANES, ADD EXTENDED DEDICATED RIGHT-TURN LANES (EA: 0J440)	Cross street references: Haun Rd to Antelope Rd Arterial through lanes: 6 (3 lanes in each direction) Existing NB and SB exit: Same. No change in turning lanes Existing NB entry ramp: 2 lanes (1 lane is now a HOV preferential lane. Lanes merge back to 1 lane for entry onto mainline) Existing SB entry ramp: 3 lanes (1 lane is now a HOV preferential lane. Lanes merge back to 1 lane for entry onto mainline) New NB entry loop ramp: 2 lanes (2 lanes at arterial merging back to 1 lane for entry onto mainline) New SB entry loop ramp: 2 lanes (2 lanes at arterial merging back to 1 lane for entry onto mainline) **Accel/Decel lanes:** NB exit ramp: Extended decel lane (approx 1300') off mainline into NB exit ramp NB entry ramp: Extended accel lane approx 1000')	√						√			

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	RIVERSIDE COUNTY	RIV050534 (Part 2 of 2)	RIV050534 (Part 2 of 2)	215	17.4	19.3	I-215	E/O ANTELOPE ROAD	HAUN ROAD	AT I-215/NEWPORT RD IC: RECONSTRUCT/WIDEN FROM 4 TO 6 THROUGH LANES BETWEEN HAUN RD AND ANTELOPE RD, RELOCATE NB AND SB EXIT RAMPS (3 LANES), RECONFIGURE NB & SB ENTRY RAMPS TO INCLUDE HOV LANE, ADD NEW NB AND SB LOOP ENTRY RAMPS (2 LANES), INCLUDE EXTENDED RAMP ACCELERATION/DECELERATION LANES, ADD EXTENDED DEDICATED RIGHT-TURN LANES (EA: 0J440)	SB entry ramp: Extended accel lane (approx 1000') **Dedicated Right-Turn Lanes** 1 WB dedicated right-turn lane on Newport Rd starting at Antelope Rd and continuing to/terminating at SB loop entry ramp 1 EB dedicated right-turn lane on Newport Rd starting at Haun Rd and continuing to/terminating at NB loop entry ramp	√					√				
RV	S	RIVERSIDE COUNTY	3M0719		215	20.3	21.3	I-215 (PM 20.34 TO 21.34)	at McCall Blvd	btwn Bradley Rd & Encanto Dr	RECONSTRUCT/WIDEN IC FROM 4 TO 6 LANES AND RECONSTRUCT RAMPS										√	
RV	S	RIVERSIDE COUNTY / CALTRANS	3M04WT009		215	23.0	24.0	I-215 (PM 23.04 TO 24.04)	at SR-74 (Matthews Rd)	btwn Case Rd & Trumble Rd	RECONSTRUCT INTERCHANGE/RAMPS										√	
RV	S	PERRIS	3M0731		215	24.7	26.1	I-215 (PM 24.7 TO 26.1)	at Ellis Ave	btwn Perris Valley Storm Drain w/o I-215 to Dunlap Dr e/o I-215	CONSTRUCT NEW 2 LANE IC AND RAMPS (1 LANE)										√	
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV050501	RIV050501	215	25.5	27.0	I-215	AT SR-74/G ST		I-215 AT SR74/G ST IC: REPLACE 2 THROUGH LANE OC WITH A 4 THROUGH LANE OC & WIDEN REDLANDS AVE (4th to SAN JACINTO), WIDEN/REALIGN RAMPS, MODIFY 4th ST (G ST to EASTERLY TERMINUS) & RECONSTRUCT INTERSECTIONS (EA: 46420)	Existing arterial lanes: 2 (1 in each direction) Mixed flow lanes - no change Cross Street Limits for Redlands Ave: From 4th St to San Jacinto ave All existing ramp lanes: 1 lane **IMPROVEMENTS:** Cross street references: From just west of the 4th St/Redlands Blvd intersection east to San Jacinto Ave Arterial through lanes: 4 lanes (2 lanes in each direction) **Ramps:** SB exit: 4 lanes (1 lane off mainline expanding to 4 lanes at arterial) SB entry: 2 lanes (2 lanes at arterial merging back to 1 lane for entry onto mainline) NB exit: 2 lanes (1 lane off mainline expanding to 2 lanes at arterial) NB entry: 2 lanes (2 lanes at arterial merging back to 1 lane for entry onto mainline)	√	√				√					
RV	S	PERRIS	3M04WT014		215	27.4	28.4	I-215 (PM 27.38 TO 28.38)	at Nuevo Rd	btwn A St & E. Frontage Rd	RECONSTRUCT INTERCHANGE, ADD CHANNELIZATION LANES ON RAMPS, MODIFY TRAFFIC SIGNALS									√		
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	3H07A (RIV071276)		215	27.9	38.3	I-215	Nuevo Rd	Box Springs Rd	ADD 1 HOV LANE IN EACH DIRECTION	Existing Config: 2 and 3 MF lanes in each direction								√		
RV	S	PERRIS	RIV071275	RIV071275	215	30.7	31.1	I-215 (PM 30.9)	at Ramona Expwy	btwn ramps	RECONSTRUCT/WIDEN FROM 4 TO 8 LANES, WIDEN SB AND NB EXIT RAMPS AT I-214/RAMONA EXPWY IC AND OC, CONSTRUCT DUAL LEFT-TURN LANES AT THE EXIT RAMPS TEMINI		√				√					
RV	S	PERRIS	3A04WT059		215	31.8	32.8	I-215 (PM 31.83 TO 32.83)	at Oleander Ave	btwn Harvill Ave and Western Way	RECONSTRUCT AND WIDEN OC FROM 2 TO 4 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Config: 2 lanes - 1 lane in each direction								√		
RV	S	PERRIS	3M10WT01	RIV100104	215	29.5	29.5	I-215 (PM 29.5)	Placentia Ave (East Frontage Rd to West Frontage Rd)		IN MID-WESTERN RIVERSIDE COUNTY IN THE CITY OF PERRIS, CONSTRUCT IC AT I-215/PLACENTIA AVE; WIDEN PLACENTIA AVE. FROM 4 TO 6 THROUGH LANES (3 LNS EB & 3 LNS WB, AND CONSTRUCT NB/SB RAMPS.	EXISTING CONDITIONS: THERE IS AN EXISTING OC AT PLACENTIA AND I-215. THE I-215 IS CURRENTLY 3 NB AND 3 SB THROUGH LANES (NORTH & SOUTH OF THE PROPOSED IC). PLACENTIA AVE IS A 2 WB AND 2 EB THROUGH LANES WEST OF THE PROJECT.								√		
RV	S	MARCH JOINT POWERS AUTHORITY	RIV060120 (Part 1 of 2)	RIV060120 (Part 1 of 2)	215	32.3	35.8	I-215 @ VAN BUREN BL INTERCHANGE			AT I-215/VAN BUREN BLVD IC: RECONSTRUCT/WIDEN IC FROM 2 TO 4 THROUGH LANES FROM MUSEUM ENTRANCE ST TO OPPORTUNITY WAY, ADD NEW NB ENTRY RAMP (3 LANES), & WIDEN RAMPS - NB ENTRY 1 TO 2 LANES, NB EXIT 2 TO 3 LANES, SB EXIT 2 TO 3 LANES, SB ENTRY 1 TO 3 LANES, ENTRY RAMPS INCLUDE HOV LANE, ADD NB/SB AUX LANE BETWEEN VAN BUREN BLVD IC AND CACTUS AVE IC (EA 0E520)	Cross street references: Btwn Museum entrance St (approx 1,300 e/o IC) and Opportunity Wy (approx 1,600' w/o IC) Arterial thru lns: 4 (2 each dir) **Ramps:** - NB exit ramp: 3 lanes (2 lane off mainline expanding to 3 turning lanes at arterial. Exit ramp is reconfigured and relocated to be a hook ramp intersecting Van Buren Blvd east/southeast OC.) - New NB entry ramp: 3 lanes (3 lanes at arterial merging back to 1 lane for entry onto mainline. Loop ramp configuration and includes HOV preferential lane) - NB entry ramp: 2 lanes (2 lanes at arterial merging back to 1 lane. Includes HOV preferential lane.) - SB exit ramp: 3 lanes (2 lanes (1 main line + 1 aux lane from Cactus Ave IC, expanding to 3 turning lanes (1 left turn and 2 right turn lanes. Right turn lanes act as a free-right turn lane and continue WB on Van Buren Blvd. The two added lanes terminate on WB Van Buren at about Opportunity Way resulting in Van Buren Blvd continuing WB at 2 through lanes.	√	√					√				

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	MARCH JOINT POWERS AUTHORITY	RIV060120 (Part 2 of 2)	RIV060120 (Part 2 of 2)	215	32.3	35.8	I-215 @ VAN BUREN BL INTERCHANGE			AT I-215/VAN BUREN BLVD IC: RECONSTRUCT/WIDEN IC FROM 2 TO 4 THROUGH LANES FROM MUSEUM ENTRANCE ST TO OPPORTUNITY WAY, ADD NEW NB ENTRY RAMP (3 LANES), & WIDEN RAMPS - NB ENTRY 1 TO 2 LANES, NB EXIT 2 TO 3 LANES, SB EXIT 2 TO 3 LANES, SB ENTRY 1 TO 3 LANES, ENTRY RAMPS INCLUDE HOV LANE, ADD NB/SB AUX LANE BETWEEN VAN BUREN BLVD IC AND CACTUS AVE IC (EA 0E520)	- SB entry ramp: 3 lanes (2 extended dedicated right -turn lanes starting at about Opportunity Way on Van Buren expanding to 3 lanes at entry ramp. Lanes merge back to 1 lane for entry onto mainline. Includes HOV preferential lane. **Auxilary Lanes:** - 1 NB lane added that begins at the new NB entry ramp and continues north terminating at the Cactus Ave IC exit ramp. - 1 SB aux lane added that begins at the Cactus Ave and continues south and terinates at the Van Buren Blvd exit ramp.	√	√				√				
RV	S	RIVERSIDE COUNTY	RIV050533 (Part 1 of 2)	RIV050533 (Part 1 of 2)	215	35.4	36.2	I-215 @ CACTUS AVE INTERCHANGE			AT I-215/CACTUS AVE IC: WIDEN IC FROM 3 TO 6 THRU LNS (EB FROM 2 TO 3 BTWN W/O BNSF RR TO 1300' E/O VETERANS WAY), ADD 4TH EB LANE FROM NB EXIT RAMP TO E/O ELSWORTH ST, WIDEN WB FROM 1 & 2 TO 3 THRU LNS FROM COMMERCE CENTER DR TO BNSF RR, WIDEN RAMPS 1 TO 2&3 LNS (ENTRY RAMPS INCLUDE HOV LN), EXTEND NB AUX LN BTWN ALESSANDRO BLVD SOUTH TO CACTUS AVE NB ENTRY LOOP RAMP & ADD DEDICATED RIGHT-TURN LNS (EA: 0E760) Cross street references: EB: Approx 300' w/o BNSF RR to 1300' e/o Veterans Way WB: Commerce St to approx 600' w/o BNSF RR Arterial through lanes: 6 (3 lanes in each direction)	**Ramps:** -SB exit: 2 lanes (1 lane off SB mainline aux lane expanding to 2 lanes at arterial -SB exit loop: 2 lanes (1 lane off SB mainline aux lane & 1 lane off mainline thru lane-) -SB entry: 3 lanes (3 lanes at arterial and includes HOV preferential lane) -NB exit: 2+ lanes (1 lane of NB mainline aux lane with 1 lane off mainline thru lane and adds 2 left-turn pocket lanes and 1 right-turn lane at terminal with Cactus Ave) -NB exit extension lane to EB Cactus Ave: 1 lane splitting off NB exit ramp and continuing EB merging with EB Cactus Ave and terminating approximately 2,300' e/o Elsworth St -NB loop entry: 3 lanes (2 lanes at arterial and adding HOV preferential lane merging back to 1 lane into NB aux lane) -NB entry: 3 lanes (1 lane at arterial expanding to 3 lanes (includes HOV preferential lane) which merges back to 1 lane into NB mainline aux lane)	√						√			
RV	S	RIVERSIDE COUNTY	RIV050533 (Part 2 of 2)	RIV050533 (Part 2 of 2)	215	35.4	36.2	I-215 @ CACTUS AVE INTERCHANGE				**Cactus Ave Dedicated Right-Turn Lanes:** -Add 1 WB to NB entry ramp dedicated right-turn lane from Old I-215 Rd to NB entry ramp -Add 1 EB to SB entry ramp dedicated right turn-lane starting w/o BNSF RR to SB entry ramp -Add 1 EB to NB loop entry ramp dedicated right-turn lane starting just e/o OC and terminating at NB loop entry ramp Cactus Ave Left Turn Lanes: -Add 1 WB to SB entry ramp left turn lane to result in a dual left turn lane -Add 1 EB to WB Old 215 Frontage Rd left turn lane to result in a dual left turn lane -Add 1 EB to WB Elsworth St left turn lane to result in a dual left turn lane **NB Aux lane extension:** -Existing NB aux lane to Alessandro Blvd is extended south to NB loop entry ramp	√						√			
RV	S	RIVERSIDE COUNTY	3M0724		215	35.9	36.9	I-215 (PM 35.92 TO 36.92)	at Alessandro Blvd	btwn BNSF & Old 215 Frontage Road	WIDEN/RECONSTRUCT IC FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	Existing Configuration: 4 lanes - 2 lanes in each direction								√		
RV	S	CALTRANS	0121D	0121D	215	37.7	43.9	I-215	60/91/215 JCT	SR60/I215 SPLIT	ON I-215/SR91/SR60, RIV I215 COR IMPROV PROJ - FROM 60/91/215 JCT TO 60/215 SPLIT - WIDEN 6 TO 8 LNS, INCLUDING MAINLINE/IC IMPROVS, ADD HOV, AUX, & SB TRUCK CLIMB LN (EA: 3348U1)	Widen 6 to 8 lanes. Add HOV, Auxiliary and Southbound Truck Climbing lane	√	√		√						
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV050555	RIV050555	215	38.02	38.92	I-215 / SR-60 IC	I-215 (N/O EUCALYPTUS AVE TO S/O BOX SPRINGS RD) & SR60 (DAY ST TO SR60/I-215 JCT)		ON I-215 (N/O EUCALYPTUS AVE TO S/O BOX SPRINGS RD) & SR60 (DAY ST TO SR60/I-215 JCT): RECONSTRUCT JCT TO PROVIDE 2 HOV DIRECT CONNECTOR LNS (SR60 PM: 12.21 TO 13.31) AND MINOR WIDENING TO BOX SPRINGS RD FROM 2 TO 4 LNS (APPROX 350 METERS) BTWN MORTON RD & BOX SPRINGS RD/FAIR ISLE IC (EA: 449311)	ADD 2 HOV DIRECT CONNECTOR LANES Cross street references: I-215: From Box Springs Rd south to Euclayptus Ave SR60: From Day St to 60/215 Jct RIV050555 adds an HOV connector lane in each direction from I-215 to EB SR60	√	√					√			
RV	S	CALTRANS	45300	45300	215	38.4	41.5	I-215	0.1 MI S/O RT 60/215 IC	MARTIN LUTHER KING BLVD	RIVERSIDE, 0.1 MI S/O RTE 60/215 IC TO MARTIN LUTHER KING BLVD CONSTRUCT SOUTHBOUND TRUCK CLIMBING LANE	CONSTRUCT SOUTHBOUND TRUCK CLIMBING LANE	√	√	√							
RV	S	CALTRANS	3M04WT016		215	41.0	42.0	I-215/SR-60 (PM 40.99 TO 41.99)	at University Ave	btwn Iowa Ave & Canyon Crest Dr	RECONSTRUCT INTERCHANGE/RAMPS									√		
RV	S	CALTRANS	3M0803		215	41.7	42.4	I-215	SB OFF-RAMP BLAINE ST	SB ON-RAMP BLAINE ST	IN THE CITY OF RIVERSIDE ON SB ROUTE 215, FROM BLAINE ST OFF RAMP TO THE BLAINE ST ON RAMP, EXTEND THE EXISTING LANE NUMBER 4 (LANE DROP) TO MERGE WITH THE EXISTING LANE NUMBER 4 AT THE BLAINE ST ON RAMP.	Existing Configuration: This segment of southbound I-215 is a four-lane freeway with a lane drop just before the on-ramp from Blaine St. This southbound lane drop that is located just after the I-215/60/91 freeway to freeway connector causes traffic to back up and impacts the overall operation of this major interchange. The proposed improvement is to extend the existing southbound lane #4 (lane drop) to merge with the on-ramp.						√				
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	3M04WT012		215	43.4	44.4	I-215 (PM 43.40 TO 44.40)	at Columbia Ave	btwn Primer St & Brandywine Ave	RECONSTRUCT INTERCHANGE/RAMPS									√		

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC) / CALTRANS	3M04WT011		215	44.5	45.5	I-215 (PM 44.51 TO 45.51)	at Center St	btwn Stephens Ave & Iowa Ave	RECONSTRUCT INTERCHANGE/RAMPS										√	
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	3C01MA01		TBD	0.0	0.0	CETAP EAST-WEST CORRIDOR	I-15	I-215	CETAP: PROVIDE NEW EAST-WEST TRANSPORTATION CORRIDOR BETWEEN I-15 IN THE WEST, I-215 IN THE EAST, SOUTH OF LAKE MATHEWS IN THE NORTH, AND SR 74 IN THE SOUTH.	Note: this segment was previously included in RIV031218 Corridor Mainline Segments Estimated Number of Through Lanes: - West of I-15 to I-15 through Lanes: 4, (2 in each direction) - I-15 to Estelle Mountain Rd (proposed roadway approximately 2 miles east of I-15) through lanes: 6, (3 in each direction) - Estelle Mountain Rd to Old Elsinore Rd through Lanes: 4, (2 in each direction) plus a short EB truck climbing lane (Approx 1 mile beginning at Estelle Mountain Rd then progressing east approximately 1 mile) - Old Elsinore Rd to I-215 through Lanes: 6, (3 in each direction) Estimated Arterial Through Lanes for IC Improvement Projects: - New I-15/Mid County Pkwy IC: 4, (2 in each direction) Note: Identified through lanes reflect the lanes for the Mid County Pkwy - New IC east of I-15 and south of Cajalco Rd (Estelle Mountain): 4, (2 in each direction) - New Lake Mathews Dr IC: 4, (2 in each direction) - New Old Elsinore Rd IC: 4, (2 in each direction)									√
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV031218 (Part 1 of 3)	RIV031218 (Part 1 of 3)	TBD	0.0	0.0	CETAP - MID COUNTY PKWY	I-215 in Perris	San Jacinto (to SR79)	MID COUNTY PKWY: CONSTRUCT 6 TO 8 THROUGH LANE (3 TO 4 LANES IN EACH DIRECTION) APPROXIMATELY 16 MILE MID COUNTY PKWY CORRIDOR IN WESTERN RIVERSIDE COUNTY BETWEEN I-215 IN PERRIS EAST TO SR79 IN SAN JACINTO INCLUDING CONSTRUCTION/RECONSTRUCTION OF APPROXIMATELY 10 INTERCHANGES	No existing facility Modeling details are based on-Alternative 9. Reference Alternative 9 exhibit for interchange location & # of lanes. Corridor Mainline Segments Estimated Number of Through Lanes: I-215 to Perris Blvd through Lanes: 6, (3 in each direction) - Perris Blvd to Evans Rd: 8, (4 in each direction) - Evans Rd to east of SR79/Sanderson Ave/Ramona Blvd: 6, (3, in each direction)	√						√		
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV031218 (Part 2 of 3)	RIV031218 (Part 2 of 3)	TBD	0.0	0.0	CETAP - MID COUNTY PKWY	I-215 in Perris	San Jacinto (to SR79)	MID COUNTY PKWY: CONSTRUCT 6 TO 8 THROUGH LANE (3 TO 4 LANES IN EACH DIRECTION) APPROXIMATELY 16 MILE MID COUNTY PKWY CORRIDOR IN WESTERN RIVERSIDE COUNTY BETWEEN I-215 IN PERRIS EAST TO SR79 IN SAN JACINTO INCLUDING CONSTRUCTION/RECONSTRUCTION OF APPROXIMATELY 10 INTERCHANGES.	Estimated Arterial Through Lanes for IC Improvement Projects: - New Mid County Pkwy/I-215 IC: 6, (3 in each direction) Note: Identified through lanes reflect lanes for the Mid County Pkwy - New Perris Blvd IC: 6, (3 in each direction) - New Evans Rd IC: 6, (3 in each direction) - New Antelope Rd. IC: 6 (3 in each direction) - New Bernasconi Rd IC: 6 (3 in each direction) - New Reservoir Ave IC: 6 (3 in each direction) - New 5th St/Town Center IC: 6 (3 in each direction) - New Park Center IC: 6 (3 in each direction) - New Warren Rd IC: 6 (3 in each direction) - New Sanderson Rd. IC: 6 (3 in each direction) - New SR79/Ramona Blvd IC: 6 (3 in each direction)	√						√		
RV	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV031218 (Part 3 of 3)	RIV031218 (Part 3 of 3)	TBD	0.0	0.0	CETAP - MID COUNTY PKWY	I-215 in Perris	San Jacinto (to SR79)	MID COUNTY PKWY: CONSTRUCT 6 TO 8 THROUGH LANE (3 TO 4 LANES IN EACH DIRECTION) APPROXIMATELY 16 MILE MID COUNTY PKWY CORRIDOR IN WESTERN RIVERSIDE COUNTY BETWEEN I-215 IN PERRIS EAST TO SR79 IN SAN JACINTO INCLUDING CONSTRUCTION/RECONSTRUCTION OF APPROXIMATELY 10 INTERCHANGES.	- Placentia Ave IC Widening: From 2 to 6, (3 in each direction) Note: Placentia Ave OC is currently 2 lane OC across I-215 (PM 29.5 to 30.0, EA 36120). The OC will be reconstructed to be a full IC as part of the Mid County Pkwy Corridor improvement and is listed here rather than as a stand alone project in the RTP Plan section.	√						√		
RV & OR	S	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	3C01MA03		TBD	0.0	0.0	CETAP - RIVERSIDE COUNTY TO ORANGE COUNTY	Western Riverside County	Orange County	CETAP - RIVERSIDE COUNTY TO ORANGE COUNTY - CONSTRUCT NEW INTERCOUNTY TRANSPORATION TOLL CORRIDOR: CORRIDOR A - 2 TOLL LANES EACH DIR ON NEW FACILITY PARALLEL TO SR-91, FROM SR-241 TO I-15, WITH IC AT SR-241, SR-71, I-15	Existing Config: SR91; Note: this corridor project is located in both OR and RV Counties; this single project entry covers both counties									√
RV	L	BANNING	RIV031202	RIV031202	0	0.0	0.0	I-10 Bypass South - one half mile south of the I-10	I-10/Hargrave St. in the City of Banning	I-10 /Apache Trail near the community of Cabazon	I-10 BYPASS SOUTH: CONSTRUCT TWO LANES OF ROADWAY TO PROVIDE A BY-PASS/NETWORK FACILITY FOR THE I-10, APPROX. 1/2 MILE S/O I-10 BETWEEN THE EASTERN END OF THE CITY OF BANNING AND APACHE TRAIL IN CABAZON. OTHER IMPROVEMENTS INCLUDE THE CONSTRUCTION OF SEVERAL LOW-WATER CROSSINGS AT SMITH CREEK AND SAN GORGONIO RIVER.	CONSTRUCT 2 LANE (1 EA. DIR) EXTENSION	√						√		

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	S	BANNING	RIV060124 (See 6 parts below)	RIV060124	10	11.1	11.6						√							√		
RIV	S	BANNING	RIV060124	RIV060124	10	11.1	11.6	SUNSET AVE	S/O UPRR	LINCOLN ST.	WIDEN FROM 1 TO 3 LANES EACH DIRECTION											
RIV	S	BANNING	RIV060124	RIV060124	10	11.1	11.6	1-10 WB AUX LANES	22ND ST	SUNSET AVE	ADD 1 WB AUX LANE											
RIV	S	BANNING	RIV060124	RIV060124	10	11.1	11.6	1-10/SUNSET AVE EB EXIT RAMP	I-10	SUNSET AVE	WIDEN FROM 1 LANE RAMP TO 4 LANE RAMP											
RIV	S	BANNING	RIV060124	RIV060124	10	11.1	11.6	1-10/SUNSET AVE EB ENTRY RAMP	SUNSET AVENUE	I-10	WIDEN FROM 1 LANE ENTRY TO MAINLINE TO 1 LANE + HOV ENTRY TO MAINLINE											
RIV	S	BANNING	RIV060124	RIV060124	10	11.1	11.6	I-10/SUNSET AVE WB ENTRY RAMP	SUNSET AVENUE	I-10	WIDEN FROM1 LNAE ENTRY TO MAINLINE TO 1 LANE + HOV ENTRY TO MAINLINE											
RIV	S	BANNING	RIV060124	RIV060124	10	11.1	11.6	I-10/SUNSET AVE WB EXIT RAMP	I-10	SUNSET AVE	WIDEN FROM 1 LANE RAMP TO 3 LANE RAMP											
RV	L	BEAUMONT	3A10WT05	RIV100101	0	0.0	0.0	SR-79 BYPASS EXTENSION NORTH	SR-60/POTRERO FWY (FUTURE)	OAK VALLEY PKWY	IN WESTERN RIVERSIDE COUNTY IN THE CITY OF BEAUMONT, CONSTRUCT SR-79 BYPASS EXTENSION NORTH PH I AS A NEW 3-LANE ARTERIAL SEGMENT, EXTENDING POTRERO BLVD FROM FUTURE SR60/POTRERO FWY IC TO OAK VALLEY PKWY IN THE CITY OF BEAUMONT.	EXTENSION IS 0.675 MILES LONG NORTH FROM THE FUTURE SR60/POTRERO FWY IC (RIV050535) TO OAK VALLEY PKWY. THIS PHASE (I) INCLUDES HALF WIDTH IMPROVEMENT OF THE PROPOSED 6-LN URBAN ARTERIAL FACILITY - WESTERN KNOLLSWILL BE USED AS INTERIM CONNECT PT TO THE SR60 FWY. CURRENT CONDITIONS: THERE ARE CURRENTLY NO TRAVEL LANES ON POTRERO NORTH OF THE SR 60.						√				
RV	L	BEAUMONT	3A10WT06	RIV100102	0	0.0	0.0	SR-79 BYPASS EXTENSION NORTH	SR-60/POTRERO FWY (FUTURE)	OAK VALLEY PKWY	IN WESTERN RIVERSIDE COUNTY IN THE CITY OF BEAUMONT, CONSTRUCT A 3-LANE PRE-FABRICATED BRIDGE ON THE EASTSIDE OF THE PHASE I POTRERO BRIDGE SR79 BYPASS EXTENSION NORTH, EXTENDING POTRERO BLVD. 0.675 MILES NORTH FROM FUTURE SR60/POTRERO FWY IC , TO CONNECT TO THE OAK VALLEY PKWY IN THE CITY OF BEAUMONT.	THIS PROJECT PROVIDES 3 ADDITIONAL LANES BEYOND THE 3 LANES IN 3A10WT05, PROVIDING A TOTAL OF 6 LANES (3 IN EACH DIRECTION).							√			
RV	L	BLYTHE	3A04A05		0	0.0	0.0	14TH AVE	River Valley Rd	7th St	WIDEN EXISTING BRIDGE AT D-CANAL FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	BLYTHE	3A04A08		0	0.0	0.0	7TH ST	Hobsonway	Rice St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction			√							
RV	L	BLYTHE	3A04A10		0	0.0	0.0	BARNARD ST	Date St	Intake Blvd	CONSTRUCT/EXTEND 2 LANE ARTERIAL	Exist Config: No facility								√		
RV	L	BLYTHE	3A04A01		0	0.0	0.0	HOBSONWAY	Arrowhead Blvd	Carlton Ave	WIDEN EXISTING BRIDGE AT C-052 CANAL FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	BLYTHE	3A04A02		0	0.0	0.0	HOBSONWAY	Arrowhead Blvd	Carlton Ave	WIDEN EXISTING BRIDGE AT C-CANAL FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	BLYTHE	3A04A03		0	0.0	0.0	HOBSONWAY	Arrowhead Blvd	Carlton Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	BLYTHE	3A04A06		0	0.0	0.0	HOBSONWAY	Olive Lake Blvd	Intake Blvd	WIDEN EXISTING BRIDGE AT C-CANAL FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	BLYTHE	3A04A04		0	0.0	0.0	N. LOVEKIN BL	10th Ave	8th Ave	WIDEN EXISTING BRIDGE AT C-CANAL FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	BLYTHE	3A04A09		0	0.0	0.0	N. LOVEKIN BL	Hobsonway	10th Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	BLYTHE	3A04A07		0	0.0	0.0	RIVIERA DR	18th Ave	20th Ave	CONSTRUCT 2 LANE OVERCROSSING AT THE LOWER OUTFALL DRAIN	Exist Config: at grade							√			
RV	L	CALIMESA	RIV060102	RIV060102	0	0.0	0.0	COUNTY LINE RD	I-10	Calimesa Blvd	IN CALIMESA - WIDEN COUNTY LINE RD 1 TO 2 LNS (I-10 TO CALIMESA BLVD), ADD EB DEDICATED RIGHT-TURN LN, WIDEN SB CALIMESA BLVD 2 TO 3 LNS (APPROX 150' SOUTH FROM COUNTY LINE RD)	WIDEN FROM 1 TO 2 LANES	√					√				
RV	L	CANYON LAKE	3A07110		0	0.0	0.0	GOETZ RD	Railroad Canyon Rd	Newport	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	CANYON LAKE	3A04WT025		0	0.0	0.0	RAILROAD CANYON RD	Cottonwood Canyon Rd	Goetz Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction						√				
RV	L	CATHEDRAL CITY	3A07033		0	0.0	0.0	CATHEDRAL CYN DR	Br. at Whitewater Chnl		CONSTRUCT 4 LANE BRIDGE	Exist Config: 4 Lane Low Flow Crossing								√		
RV	L	CATHEDRAL CITY	3A07099		0	0.0	0.0	CATHEDRAL CYN DR	Terrace Rd	E Palm Cyn	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Roadway								√		
RV	L	CATHEDRAL CITY	3A07042		0	0.0	0.0	DA VALL RD	I-10	Varner Rd	CONSTRUCT NEW 6-LANE ROAD	Exist Config: Missing Link									√	
RV	L	CATHEDRAL CITY	3A07055		0	0.0	0.0	DA VALL RD	Dinah Shore	Ramon Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 Lane Roadway								√		
RV	L	CATHEDRAL CITY	3A07120		0	0.0	0.0	DA VALL RD	Ave 30	I-10	CONSTRUCT NEW 6-LANE ROAD	Exist Config: Missing Link									√	
RV	L	CATHEDRAL CITY	3A07125		0	0.0	0.0	DA VALL RD	Ramon Rd	McCallum Way	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 Lane Roadway								√		
RV	L	CATHEDRAL CITY	3A07127		0	0.0	0.0	DA VALL RD	McCallum Way	Ave 30	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 Lane Roadway									√	
RV	L	CATHEDRAL CITY	3A01CV034		0	0.0	0.0	DATE PALM DR	Vista Chino	I-10	WIDEN FROM 4 TO 6 LANES	Exist Config: Phased Construction in Progress				√						

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	CATHEDRAL CITY	3A07027	RIV091011	0	0.0	0.0	DATE PALM DR	Via Estrada to the north	Perez Rd to the South	WIDEN FROM 4 TO 6 LANES IN EASTERN RIVERSIDE COUNTY IN THE COACHELLA VALLEY - DATE PALM DR OVER THE WHITEWATER RIVER: WIDENING OF DATE PALM DR FROM 4 TO 6 LNS (3 LNS IN EA DIR), FROM APPROX. 350' S/O THE BRIDGE TO 250' N/O THE BRIDGE (VIA ESTRADA TO THE NORTH AND PEREZ RD. TO THE SOUTH), INCLUDING THE CONSTRUCTION OF A RAISED MEDIAN AND SIDEWALK ALONG THE EAST SIDE OF THE PROJECT (BRIDGE NO. 56C0189).	Exist Config: 4 Lane Bridge						√		
RV	L	CATHEDRAL CITY	3A07028	RIV070302	0	0.0	0.0	DATE PALM DR	I-10	Varner (incl. realign & Bridge at Long Cyn.)	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 Lane Roadway								√		
RV	L	CATHEDRAL CITY	3A07032		0	0.0	0.0	DATE PALM DR	Dinah Shore Dr	Ramon Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 Lane Roadway								√		
RV	L	CATHEDRAL CITY	3A07048		0	0.0	0.0	DATE PALM DR	Gerald Ford Dr	Dinah Shore Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 Lane Roadway								√		
RV	L	CATHEDRAL CITY	3A07060		0	0.0	0.0	DATE PALM DR	East Palm Cyn	Gerald Ford Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 Lane Roadway and N. Cath. Ch. Bridge								√		
RV	L	CATHEDRAL CITY	3A07018A		0	0.0	0.0	LANDAU	Vista Chino	I-10	CONSTRUCT NEW 6-LANE ROAD	Exist Config: Missing Link									√	
RV	L	CATHEDRAL CITY	3A07018B		0	0.0	0.0	LANDAU	I-10	Valley Center Blvd	CONSTRUCT NEW 6-LANE ROAD	Exist Config: Missing Link									√	
RV	L	CATHEDRAL CITY	3A07018C		0	0.0	0.0	LANDAU	Valley Center Blvd	Varner Rd	CONSTRUCT NEW 4-LANE ROAD	Exist Config: Missing Link									√	
RV	L	CATHEDRAL CITY	3A01CV073		0	0.0	0.0	MOUNTAIN VIEW RD	20th Ave	Varner Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 Lane Roadway									√	
RV	L	CATHEDRAL CITY	3A01CV078		0	0.0	0.0	RAMON RD	Gene Autry Trail	W Bank of the Whitewater Rvr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 Lane Roadway								√		
RV	L	CATHEDRAL CITY	3A07089	RIV090406	0	0.0	0.0	RAMON RD	Br. at Whitewater Rvr - widen North and South sides and approaches Landau Blvd Crossley	Br. at Whitewater Rvr - widen North and South sides and approaches San Luis Rey Dr. Landau Blvd	WIDEN FROM 4 TO 6 LANES Add a 3rd WB Lane Add a 3rd EB Lane	Exist Config: 4 Lane Bridge								√		
RV	L	CATHEDRAL CITY	RIV011212	RIV011212	0	0.0	0.0	RAMON RD	DATE PALM DRIVE	EAST CITY LIMITS (DA VALL)	IN CATHEDRAL CITY ON RAMON RD - DATE PALM DR TO E. CITY LIMITS (DA VALL) - WIDEN 4 TO 6 LNS & PAVEMENT REHAB, SIDEWALKS, SIGNAL INTERCONNECT, RETAINING WALLS, DRAIN IMP.	WIDEN FROM 4 TO 6 LANES	√	√				√				
RV	L	CATHEDRAL CITY	3A0802		0	0.0	0.0	VALLEY CENTER BLVD	PALM DR	DATE PALM DR	IN THE CITY OF CATHEDRAL CITY, CONSTRUCT VALLEY CENTER BLVD NORTH OF I-10 AND SOUTH OF VARNER RD AS A 4 LANES ARTERIAL FROM PALM DR TO DATE PALM DR	Connects with Mihalyo Rd on the western end.									√	
RV	L	CATHEDRAL CITY	3A0803		0	0.0	0.0	VALLEY CENTER BLVD	DATE PALM DR	DA VALL DR (FUTURE EXTENSION)	IN THE CITY OF CATHEDRAL CITY, CONSTRUCT VALLEY CENTER BLVD NORTH OF I-10 AND SOUTH OF VARNER RD AS A 4 LANE ARTERIAL FROM DATE PALM DR TO FUTURE DA VALL RD EXTENSION									√		
RV	L	CATHEDRAL CITY	3A01CV089		0	0.0	0.0	VARNER RD	Palm Dr	Mountain View Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 Lane Roadway								√		
RV	L	CATHEDRAL CITY	3A01CV090		0	0.0	0.0	VARNER RD	Mountain View Rd	Date Palm Dr	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 Lane Roadway								√		
RV	L	CATHEDRAL CITY	3A01CV091		0	0.0	0.0	VARNER RD	Date Palm Dr	Ramon Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 Lane Roadway									√	
RV	L	CATHEDRAL CITY	3A01CF096		0	0.0	0.0	VISTA CHINO	E Bank of Whitewater Br.	Landau Blvd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 Lane Roadway								√		
RV	L	CATHEDRAL CITY	3A01CV097		0	0.0	0.0	VISTA CHINO	Date Palm	Da Vall Dr	CONSTRUCT NEW 4-LANE ROAD	Exist Config: Missing Link									√	
RV	L	COACHELLA	3A07057		0	0.0	0.0	AVE 48	Jackson St	Van Buren St (center line)	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	COACHELLA	3A07092		0	0.0	0.0	AVE 48	Grade Separation at Hwy 111/SPRR		WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction									√	
RV	L	COACHELLA	3A07108		0	0.0	0.0	AVE 48	Van Buren St	W of Hwy 86	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	COACHELLA	3A07167		0	0.0	0.0	AVE 48	Intersection of Ave 48 and Hwy 86		WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction							√			
RV	L	COACHELLA	3A01CV002		0	0.0	0.0	AVE 50	Bridge. at All Amer.Canal		CONSTRUCT 4-LANE BRIDGE	Exist Config: New facility					√					
RV	L	COACHELLA	3A01CV004		0	0.0	0.0	AVE 50	SR-86S to I-10	I-10	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	COACHELLA	3A01CV005		0	0.0	0.0	AVE 50	Van Buren St	Harrison St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	COACHELLA	3A04CV113		0	0.0	0.0	AVE 50	Hwy 111 to SR-86S	SR-86S	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	COACHELLA	3A07039		0	0.0	0.0	AVE 50	Jackson St	Van Buren St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	COACHELLA	3A01CV014		0	0.0	0.0	AVE 52	Calhoun St	Fredrick St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	COACHELLA	3A01CV015A		0	0.0	0.0	AVE 52	Fredrick St	Harrison St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	COACHELLA	3A01CV015B		0	0.0	0.0	AVE 52	Harrison St	Hwy 111	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	COACHELLA	3A01CV015C		0	0.0	0.0	AVE 52	Hwy 111	SR-86S	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	COACHELLA	3A07094		0	0.0	0.0	AVE 52	Grade Separation at Hwy 111/SPRR		WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	COACHELLA	3A07098		0	0.0	0.0	AVE 52	Jackson St	Calhoun St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	COACHELLA	3A07164		0	0.0	0.0	AVE 52	Intersection of Ave 52 and Hwy 111		WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction								√		

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	COACHELLA	3A07165		0	0.0	0.0	AVE 52	Intersection of Ave 52 and SR-86		WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	COACHELLA	3A01CV016		0	0.0	0.0	AVE 54	Van Buren St	Harrison St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	COACHELLA	3A01CV017		0	0.0	0.0	AVE 54	Harrison St	Tyler St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	COACHELLA	3A01CV018		0	0.0	0.0	AVE 54	Tyler St	Hwy 111	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	COACHELLA	3A07011		0	0.0	0.0	AVE 54	Hwy 111	Fillmore	CONSTRUCT 4-LANE BRIDGE	Exist Config: New facility								√		
RV	L	COACHELLA	3A01CV023		0	0.0	0.0	AVE 56 / AIRPORT BL	0.25 mi. W of Van Buren St	Harrison St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	COACHELLA	3A04CV027		0	0.0	0.0	AVE 56 / AIRPORT BL	SPRR	E side of Br. at Coachella Vlly Storm Chnl	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	COACHELLA	3A07078		0	0.0	0.0	AVE 58	Van Buren St	Harrison St (SR-86)	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	COACHELLA	RIV011209	RIV011209	0	0.0	0.0	DILLON RD	HWY 86	I-10	IN COACHELLA - WIDEN DILLON ROAD FROM 2 TO 4 LANES FROM HWY 86 TO I-10, CONSTRUCT MEDIAN CURB, AND INSTALL/INTERCONNECT 2 SIGNALS (APPROX. .75 MILE)	WIDEN FROM 2 TO 4 LANES	√	√	√							
RV	L	COACHELLA	3A07051		0	0.0	0.0	DILLON RD	Ave 44	I-10	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	COACHELLA	3A07096		0	0.0	0.0	DILLON RD	I-10	Whitewater Br.	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction					√					
RV	L	COACHELLA	3A07040		0	0.0	0.0	GRAPEFRUIT BL	Ave 48/Dillon Rd	Ave 50	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction								√		
RV	L	COACHELLA	3A07069		0	0.0	0.0	GRAPEFRUIT BL	Ave 52	Ave 54	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	COACHELLA	3A07071		0	0.0	0.0	GRAPEFRUIT BL	Ave 50	Ave 52	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	COACHELLA	3A07088		0	0.0	0.0	GRAPEFRUIT BL	Ave 54	Ave 56	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	COACHELLA	3A07074		0	0.0	0.0	HARRISON ST	Ave 54	Ave 56	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	COACHELLA	3A01CV087		0	0.0	0.0	VAN BUREN ST	Ave 52	Ave 54	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	COACHELLA	3A01CV088		0	0.0	0.0	VAN BUREN ST	Ave 54	Ave 56/Airport Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	COACHELLA	3A07036		0	0.0	0.0	VAN BUREN ST	Ave 48	Ave 50	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	COACHELLA	3A07037		0	0.0	0.0	VAN BUREN ST	Ave 50	Ave 52	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	CORONA	RIV010209	RIV010209	0	0.0	0.0	FOOTHILL PKWY	LINCOLN AVENUE	PASEO GRANDE	IN THE CITY OF CORONA - CONSTRUCT FOOTHILL PARKWAY WESTERLY EXTENSION 4 LANE ROAD FROM LINCOLN AVE TO PASEO GRANDE (APPROX 2.5 MILES)	CONSTRUCT FOOTHILL PARKWAY WESTERLY EXTENSION 4 LANE ROAD	√					√				
RV	L	CORONA	3A07130		0	0.0	0.0	GREEN RIVER RD	Dominguez Ranch Rd	Palisades Drive	WIDEN FROM 4 TO 6 LANES	Exist Config:			√							
RV	L	CORONA	RIV011237	RIV011237	0	0.0	0.0	GREEN RIVER RD	SR-91	SOUTHSIDE TO PALISADES DRIVE	NEAR CORONA - WIDEN GREEN RIVER ROAD FROM 3 TO 6 LANES FROM SR91 SOUTHSIDE OFF/ON RAMPS TO PALISADES DRIVE	WIDEN FROM 3 TO 6 LANES	√	√				√				
RV	L	CORONA	RIV010225	RIV010225	91	5.4	5.4	LINCOLN AVE	SR-91		AT LINCOLN AVE/SR91 - WIDEN RAMPS (ADD 1 LANE TO EB ENTRY AND 2 LANES TO EB & WB EXIT) PLUS CHANNELIZATION/SIGNAL IMPROVEMENTS TO LINCOLN AVE FROM PARKRIDGE AVE TO ONTARIO AVE	WIDEN RAMPS - ADD 1 LANE TO EASTBOUND ENTRY AND 2 LANES TO EASTBOUND AND WEST BOUND OFF RAMPS	√	√	√							
RV	L	CORONA	3A04T027		0	0.0	0.0	MAGNOLIA AVE	Ontario Ave	Rimpau Ave	INTERSECTION UPGRADES ON MAGNOLIA AVE. BETWEEN ONTARIO AVE. AND RIMPAU AVE. TO ACCOMMODATE RESTRIPING FROM 4 TO 6 LANES.	Exist Config:										√
RV	L	CORONA	RIV031203 (Part 1 of 2)	RIV031203 (Part 1 of 2)	0	0.0	0.0	MAGNOLIA AVE	I-15	FULLERTON	WIDEN FROM 4 TO 6 LANES		√	√					√			
RV	L	CORONA	RIV031203 (Part 2 of 2)	RIV031203 (Part 2 of 2)	0	0.0	0.0	MAGNOLIA AVE	I-15	SHERBORN	MAGNOLIA AVE CORRIDOR (I-15 TO E. 6TH ST): WIDEN SECTIONS 2 TO 6 & 4 TO 6 LNS, RECON/CHANNELIZATION, SAFETY & SIGNAL INSTALL/MODS	MAGNOLIA AVE CORRIDOR (I15 to Sherborn): WIDEN SECTIONS 2 TO 6 & 4 TO 6 LNS, RECON/CHANNELIZATION, SAFETY & SIGNAL INSTALL/MODS	√	√	√							
RV	L	CORONA	3A04WT029		0	0.0	0.0	MAIN ST	SR-91	North Grand Blvd	WIDEN FROM 4 TO 6 LANES	Exist Config:					√					
RV	L	CORONA	3A04WT030		0	0.0	0.0	MAIN ST	South Grand Blvd	Ontario Ave	WIDEN FROM 2 TO 4 LANES	Exist Config:								√		
RV	L	CORONA	RIV010228	RIV010228	0	0.0	0.0	MAIN ST	Harrison St.	Blaine St.	IN THE CITY OF CORONA - CONSTRUCT 2 LANE ENTRANCE STREET TO CORONA NORTH MAIN ST. METROLINK STATION ON NORTH MAIN STREET FROM HARRISON ST. TO BLAINE ST. (1 BLOCK)		√				√					
RV	L	CORONA	3A07044		0	0.0	0.0	MID-COUNTY PKWY	Arantine Hills/Eagle	I-15	CONSTRUCT NEW 4 LANE ARTERIAL SEGMENT	Exist Config: No existing facility (western tail segment to Mid County Pkwy west of I-15)						√				
RV	L	CORONA	3A04WT032		0	0.0	0.0	RAILROAD ST	Sherman Ave	Main St (at Grand)	WIDEN FROM 2 TO 4 LANES	Exist Config:					√					
RV	L	DESERT HOT SPRINGS	3A01CV047A		0	0.0	0.0	HACIENDA AVE	Cholla Dr	Palm Dr	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes			√							
RV	L	DESERT HOT SPRINGS	3A01CV047B		0	0.0	0.0	HACIENDA AVE	Little Morongo Rd	Cholla Dr(missinglink)	CONSTRUCT NEW 6-LANE ROAD	Exist Config: None					√					
RV	L	DESERT HOT SPRINGS	3A01CV048		0	0.0	0.0	HACIENDA AVE	Palm Dr	Mountain View Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes					√					
RV	L	DESERT HOT SPRINGS	3A01CV049		0	0.0	0.0	HACIENDA AVE	Mountain View Rd	Dillon Rd(LongCynRd)	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes						√				
RV	L	DESERT HOT SPRINGS	3A01CV053	RIV091201	0	0.0	0.0	INDIAN AVE	Pierson Blvd	Mission Lakes Blvd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes								√		
RV	L	DESERT HOT SPRINGS	3A07023	RIV091001	0	0.0	0.0	INDIAN AVE	Mission Lakes Blvd	SR-62	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes Including construction of an all weather bridge over Mission Creek.								√		
RV	L	DESERT HOT SPRINGS	3A01CV103		0	0.0	0.0	LITTLE MORONGO RD	Two Bunch Palms Tr	Dillon Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes								√		
RV	L	DESERT HOT SPRINGS	3A01CV104		0	0.0	0.0	LITTLE MORONGO RD	Mission Lakes Blvd	Pierson Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes							√			
RV	L	DESERT HOT SPRINGS	3A01CV105		0	0.0	0.0	LITTLE MORONGO RD	Pierson Blvd	Two Bunch Palms Tr	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes						√				
RV	L	DESERT HOT SPRINGS	3A01CV067		0	0.0	0.0	MISSION LAKES BL	Indian Ave	Little Morongo Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes				√						

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	DESERT HOT SPRINGS	3A01CV068		0	0.0	0.0	MISSION LAKES BL	Little Morongo Rd	Palm Dr	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes					√					
RV	L	DESERT HOT SPRINGS	3A07001		0	0.0	0.0	MISSION LAKES BL	Palm Dr	Eastern Terminus at Verbena Dr	WIDEN FROM 2 TO 6 LANES	Exist Config: 4 lanes										√
RV	L	DESERT HOT SPRINGS	3A01CV071		0	0.0	0.0	MOUNTAIN VIEW RD	Hacienda Ave	Dillon Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes								√		
RV	L	DESERT HOT SPRINGS	3A01CV075		0	0.0	0.0	PIERSON BL	SR-62	Indian Ave	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes					√					
RV	L	DESERT HOT SPRINGS	3A01CV076		0	0.0	0.0	PIERSON BL	Indian Ave	Little Morongo Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes					√					
RV	L	DESERT HOT SPRINGS	RIV011231	RIV011231	0	0.0	0.0	PIERSON BL			IN DESERT HOT SPRINGS PIERSON BLVD REHAB/WIDENING FROM PALM DR TO LITTLE MORONO RD - 2 TO 4 LANES (LITTLE MORONGO TO ATLANTIC), 3 TO 4 LANES (VIA LORETO TO CHOLLA) (1.5 MILES TOT)		√	√	√							
RV	L	DESERT HOT SPRINGS	3A01CV085		0	0.0	0.0	TWO BUNCH PALMS TR	Little Morongo Rd	Palm Dr	WIDEN FROM 2 TO 6 LANES	Exist Config: 2/4 lanes						√				
RV	L	DESERT HOT SPRINGS	3A01CV086		0	0.0	0.0	TWO BUNCH PALMS TR	Palm Dr	Miracle Hill Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2/4 lanes						√				
RV	L	HEMET	3A04WT034		0	0.0	0.0	DOMENIGONI PKWY	Warren Rd	Sanderson Ave	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each directiom							√			
RV	L	HEMET	3A01WT035		0	0.0	0.0	SANDERSON AVE	Domenigoni Pkwy	Stetson Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - widen bridge only			√							
RV	L	HEMET	3A01WT036		0	0.0	0.0	SANDERSON AVE	BNSF RR Crossing (near Stetson Ave)	Acacia Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction			√							
RV	L	HEMET	3A04WT037		0	0.0	0.0	SR-74	Winchester Rd (SR-79)	Warren Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each directiom				√						
RV	L	HEMET	3A01WT038		0	0.0	0.0	STATE ST	Domenigoni Pkwy	Stetson Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction			√							
RV	L	HEMET	3A01WT039		0	0.0	0.0	STATE ST	Johnston Ave	Florida Ave (SR-74)	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction			√							
RV	L	HEMET	RIV990302	RIV990302	0	0.0	0.0	STATE ST	CHAMBERS	DOMENIGONI PARKWAY & GIBBEL	IN HEMET ON STATE ST. FROM CHAMBERS TO DOMENIGONI PKWY & GIBBEL WIDEN FROM 2 TO 4 LANES PAVED SHOULDERS, OVERLAY	WIDEN FROM 2 TO 4 LANES	√	√	√							
RV	L	HEMET	3A01WT040		0	0.0	0.0	STETSON AVE	Warren Rd	Cawston Ave	RELOCATE AND CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility					√					
RV	L	HEMET	3A01WT041		0	0.0	0.0	WARREN RD	Esplanade Ave	Domenigoni Pkwy	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	INDIAN WELLS	3A07256		0	0.0	0.0	COOK ST	Fred Waring	Hwy 111	WIDEN FROM 4 TO 5 LANES	Exist Config: 4 lanes - 2 lanes in each direction						√				
RV	L	INDIAN WELLS	3A07316	RIV091006	0	0.0	0.0	SR-111	West City Limit	Cook St	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction							√			
RV	L	INDIAN WELLS	3A07257	RIV091006	0	0.0	0.0	SR-111	Cook St	Eldorado Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction							√			
RV	L	INDIAN WELLS	3A07258	RIV091209	0	0.0	0.0	SR-111	Eldorado Dr	East City Limits (W/O Washington Ave)	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction							√			
RV	L	INDIAN WELLS	3A07259		0	0.0	0.0	SR-111	Miles Ave	Washington Ave	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction							√			
RV	L	INDIO	3A07017		0	0.0	0.0	AVE 44	Low Water Xing	Dillon Rd	WIDEN FROM 4 TO 4 LANES	Exist Config: Two Lane Highway				√						
RV	L	INDIO	3A07029		0	0.0	0.0	AVE 44	Monroe St	Low Water Xing	WIDEN FROM 2 TO 4 LANES	Exist Config: Four Lane Highway				√						
RV	L	INDIO	3A07137		0	0.0	0.0	AVE 44	Ave. 44 Br. / Low Water Xing		WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway				√						
RV	L	INDIO	3A07025		0	0.0	0.0	AVE 48	Jefferson St	All American Canal	WIDEN FROM 4 TO 6 LANES	Exist Config: Four Lane Highway						√				
RV	L	INDIO	3A07043		0	0.0	0.0	AVE 48	Hjorth St	Jackson St	WIDEN FROM 2 TO 6 LANES	Exist Config: Two Lane Highway						√				
RV	L	INDIO	3A07076		0	0.0	0.0	AVE 48	Jackson St	Van Buren St (center line)	WIDEN FROM 2 TO 6 LANES	Exist Config: Four Lane Highway						√				
RV	L	INDIO	3A07117		0	0.0	0.0	AVE 48	Van Buren St	W of Hwy 86	WIDEN FROM 2 TO 6 LANES	Exist Config: Two Lane Highway				√						
RV	L	INDIO	3A01CV003		0	0.0	0.0	AVE 50	Jefferson St	Madison St (Excl Br. At AllAmerican Canal)	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway						√				
RV	L	INDIO	3A07052		0	0.0	0.0	AVE 50	Monroe St	Jackson St	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway						√				
RV	L	INDIO	3A07056		0	0.0	0.0	AVE 50	Madison St	Monroe St	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway						√				
RV	L	INDIO	3A07065		0	0.0	0.0	AVE 50	Jackson St	Van Buren St (center line)	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway						√				
RV	L	INDIO	3A01CV011		0	0.0	0.0	AVE 52	Madison St	Monroe St	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway							√			
RV	L	INDIO	3A01CV012		0	0.0	0.0	AVE 52	Monroe St	Jackson St	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway							√			
RV	L	INDIO	3A07115		0	0.0	0.0	AVE 52	Jackson St	Calhoun St	WIDEN FROM 2 TO 6 LANES	Exist Config: Two Lane Highway							√			
RV	L	INDIO	3A07091		0	0.0	0.0	DILLON RD	Grade Separation at HWY 111 / SPRR		WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway			√							
RV	L	INDIO	RIV071253	RIV071253	0	0.0	0.0	GOLF CTR PKWY	Golf Ctr Pkwy I-10 IC		ON I-10 IN INDIO AT GOLF CENTER PKWY IC: RECONSTRUCT/WIDEN IC FROM 4 TO 6 THROUGH LANES INCLUDING BRIDGE OVER WHITEWATER RIVER CHANNEL BETWEEN AVENUE 44 TO S/O WHITEWATER RIVER CHANNEL, RECONSTRUCT/WIDEN RAMPS 1 TO 2 LANES, AND EXTEND RAMPS WITH ACCELERATION/DECELERATION LANES	Exist Config: Two Lane Highway	√							√		
RV	L	INDIO	RIV071253	RIV071253	10	56.2	57.8	GOLF CTR PKWY	AVE 44	S/O WHITEWATER RIVER CHANNEL	WIDEN FROM 4 TO 6 LANES INCL BRIDGE OVER CHANNEL		√									
RV	L	INDIO	RIV071253	RIV071253	10	56.2	57.8	I-10/GOLF CENTER PKWY EB ENTRY RAMP	GOLD CENTER PKWY	I-10	WIDEN FROM 1 LANE TO 2 LANES AT ARTERIAL MERGING TO 1 LANE AFTER JOINING MAINLINE		√									
RV	L	INDIO	RIV071253	RIV071253	10	56.2	57.8	I-10/GOLF CENTER PKWY WB ENTRY RAMP	GOLF CENTER PKWY	I-10	WIDEN FROM 1 LANE TO 2 ACCEL LANES AT ARTERIAL MERGING TO 1 LANE AT MAINLINE		√									
RV	L	INDIO	RIV071253	RIV071253	10	56.2	57.8	I-10/GOLF CENTER PKWY EB EXIT RAMP	I-10	GOLF CTR PKWY	WIDEN FROM 1 LANE TO 1 LANE AT MAINLINE QUICKLY EXPANDING TO 2 DECEL LANES WITH 2 ADDITIONAL TURN LANES AT ARTERIAL		√									

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	INDIO	RIV071253	RIV071253	10	56.2	57.8	I-10/GOLF CENTER PKWY WB EXIST RAMP	I-10	GOLF CENTER PKWY	WIDEN FROM 1 LANE TO 1 LANE AT MAINLINE QUICKLY EXPANDING TO 2 DECEL LANES WITH 2 TURN LANES AT ARTERIAL		√									
RV	L	INDIO	3A01CV106		0	0.0	0.0	INDIO BL	Jackson St	HWY 111	WIDEN FROM 4 TO 4 LANES	Exist Config: Four Lane Highway								√		
RV	L	INDIO	3A01CV107		0	0.0	0.0	INDIO BL	Madison St	Monroe St	WIDEN FROM 4 TO 4 LANES	Exist Config: Four Lane Highway								√		
RV	L	INDIO	3A01CV108		0	0.0	0.0	INDIO BL	Monroe St	Jackson St	WIDEN FROM 4 TO 4 LANES	Exist Config: Four Lane Highway								√		
RV	L	INDIO	3A01CV109		0	0.0	0.0	INDIO BL	Jefferson St / I-10	Madison St	WIDEN FROM 4 TO 4 LANES	Exist Config: Four Lane Highway								√		
RV	L	INDIO	3A07041		0	0.0	0.0	INDIO BL	HWY 111	Ave 48 (was HWY111A)	WIDEN FROM 4 TO 4 LANES	Exist Config: Four Lane Highway								√		
RV	L	INDIO	3A01CV054		0	0.0	0.0	JACKSON ST	Ave 48	Ave 50	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway					√					
RV	L	INDIO	3A01CV110A		0	0.0	0.0	JACKSON ST	Ave 44	Ave 46	WIDEN FROM 4 TO 6 LANES	Exist Config: Four Lane Highway				√						
RV	L	INDIO	3A01CV110B		0	0.0	0.0	JACKSON ST	I-10 IC	Ave 44	WIDEN FROM 4 TO 6 LANES	Exist Config: Four Lane Highway				√						
RV	L	INDIO	3A01CV111		0	0.0	0.0	JACKSON ST	Ave 46	Ave 48	WIDEN FROM 3 TO 6 LANES	Exist Config: Four Lane Highway					√					
RV	L	INDIO	3A01CV123		0	0.0	0.0	JACKSON ST	Ave 40	I-10 IC	WIDEN FROM 2 TO 6 LANES	Exist Config: Four Lane Highway				√						
RV	S	INDIO	3A07020	RIV071252 (see 5 parts below)	10	55.6	55.9	JACKSON ST	Jackson St I-10 IC	I-10 IC	ON I-10 IN INDIO AT JACKSON ST IC (at PM 55.575): RECONSTRUCT/WIDEN IC FROM 2 TO 6 THROUGH LANES INCLUDING BRIDGE OVER WHITEWATER RIVER CHANNEL FROM SHOWCASE PKWY TO SOUTH OF WHITEWATER RIVER CHANNEL, RECONSTRUCT/WIDEN RAMPS 1 TO 2 LANES, MODIFY TRAFFIC SIGNALS	Exist Config: Two Lane Highway								√		
RV	L	INDIO	3A07020	RIV071252	10	55.6	55.9	JACKSON ST	SHOWCASE	S/O WHITEWATER RIVER CHANNGEL	WIDEN FROM 2 TO 6 LANES									√		
RV	L	INDIO	3A07020	RIV071252	10	55.6	55.9	I-10/JACKSON ST WB EXIT RAMP	I-10	JACKSON ST	WIDEN FROM 1 LANE TO 1 LANE AT MAINLINE EXPANDING TO 2 TURN LANES AT ARTERIAL									√		
RV	L	INDIO	3A07020	RIV071252	10	55.6	55.9	I-10/JACKSON ST WB ENTRY RAMP	JACKSON ST	I-10	WIDEN FROM 1 LANE TO 2 LANES AT ARTERIAL MERGING TO 1 LANE AT MAINLINE (NO HOV)									√		
RV	L	INDIO	3A07020	RIV071252	10	55.6	55.9	I-10/JACKSON ST EB ENTRY RAMP	JACKSON ST	I-10	WIDEN FROM 1 LANE TO 2 LANES AT ARTERIAL MERGING TO 1 LANE AT MAINLINE (NO HOV)									√		
RV	L	INDIO	3A07020	RIV071252	10	55.6	55.9	I-10/JACKSON ST EB EXIT RAMP	I-10	JACKSON ST	WIDEN FROM 1 LANE TO 1 LANE AT MAINLINE EXPANDING TO 2 TURN LANES AT ARTERIAL									√		
RV	L	INDIO	3A07086		0	0.0	0.0	JACKSON ST	Ave 50	Ave 52	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway					√					
RV	L	INDIO	3A01CV116		0	0.0	0.0	JEFFERSON ST	Ave 40	Ave 38	WIDEN FROM 2 TO 2 LANES	Exist Config: Two Lane Highway				√						
RV	L	INDIO	3A07019		0	0.0	0.0	JEFFERSON ST	I-10 IC and Br. Over RR		WIDEN FROM 2 TO 6 LANES	Exist Config: Two Lane Highway				√						
RV	L	INDIO	3A07171		0	0.0	0.0	JEFFERSON ST	I-10	Ave 40	WIDEN FROM 2 TO 2 LANES	Exist Config: Two Lane Highway				√						
RV	L	INDIO	3A01CV059A		0	0.0	0.0	MADISON ST	Ave 52	Ave 50	WIDEN FROM 3 TO 6 LANES	Exist Config: Two Lane Highway					√					
RV	L	INDIO	3A01CV060		0	0.0	0.0	MADISON ST	Ave 50	Ave 49 (Missing Link)	CONSTRUCT NEW 4 - LANE ROAD	Exist Config:					√					
RV	L	INDIO	3A01CV061		0	0.0	0.0	MADISON ST	0.25 mi. N. of Ave 49	HWY 111 (Incl. missing link 1/4 mi. N of Ave 49	CONSTRUCT NEW 4 - LANE ROAD	Exist Config:					√					
RV	L	INDIO	3A01CV062		0	0.0	0.0	MADISON ST	HWY 111	Miles Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway						√				
RV	L	INDIO	3A01CV063		0	0.0	0.0	MADISON ST	Miles Ave	Fred Waring Dr (missing link)	CONSTRUCT NEW 4 - LANE ROAD	Exist Config:						√				
RV	L	INDIO	3A01CV064		0	0.0	0.0	MADISON ST	Fred Waring Dr	Indio Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway							√			
RV	L	INDIO	3A01CV065		0	0.0	0.0	MADISON ST	Future Madison St I-10 IC		CONSTRUCT 6 - LANE INTERCHANGE	Exist Config:							√			
RV	L	INDIO	3A01CV121A		0	0.0	0.0	MILES AVE	Monroe St	Indio Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: Two Lane Highway				√						
RV	L	INDIO	3A01CV121B		0	0.0	0.0	MILES AVE	Clinton St	Monroe St	WIDEN FROM 4 TO 4 LANES	Exist Config: Two Lane Highway				√						
RV	L	INDIO	3A07077		0	0.0	0.0	MILES AVE	Jefferson St	Whitewater Rvr	WIDEN FROM 4 TO 4 LANES	Exist Config: Four Lane Highway				√						
RV	L	INDIO	RIV071254	RIV071254	0	0.0	0.0	MONROE ST	Monroe St I-10 IC		ON I-10 IN INDIO AT MONROE ST IC: RECONSTRUCT/WIDEN IC FROM 2 TO 6 THROUGH LANES INCLUDING BRIDGE OVER WHITEWATER RIVER CHANNEL FROM AVENUE 42 TO S/O WHITEWATER RIVER CHANNEL, RECONSTRUCT/WIDEN RAMPS 1 TO 2 LANES, AND EXTEND RAMPS WITH ACCELERATION/DECELERATION LANES (EA: 0K730K	**EXISTING CONDITIONS:** Arterial through lanes: 2 (1 lane in each direction) Ramps lanes: 1 **IMPROVEMENTS:** Cross street references: Avenue 42 north of I-10 south across and just beyond Whitewater River Channel Arterial through lanes: 6 (3 lanes in each direction) **Ramps:** EB & WB exit ramps: 2 lanes (1 lane off mainline quickly expanding to 2 lanes functioning as extended deceleration lanes (approx 0.7 miles) to arterial. 2 turning lanes at arterial. EB & WB entry lanes: 2 (2 lanes at arterial continuing as acceleration lanes (approx 0.7 miles) and then merging back to a single lane for entry onto mainline.	√						√			
RV	L	INDIO	3A07030		0	0.0	0.0	MONROE ST	Ave 40	I-10 IC	WIDEN FROM 2 TO 6 LANES	Exist Config: Two Lane Highway					√					
RV	L	INDIO	3A07031		0	0.0	0.0	SR-111	Madison St	Monroe St	WIDEN FROM 4 TO 6 LANES	Exist Config: Four Lane Highway						√				
RV	L	INDIO	3A07049		0	0.0	0.0	SR-111	Monroe St	Jackson St	WIDEN FROM 4 TO 6 LANES	Exist Config: Four Lane Highway						√				
RV	L	INDIO	3A07053		0	0.0	0.0	SR-111	Jefferson St	Madison St	WIDEN FROM 4 TO 6 LANES	Exist Config: Four Lane Highway				√						
RV	L	INDIO	3A07087		0	0.0	0.0	SR-111	Jackson St	Indio Blvd	WIDEN FROM 4 TO 6 LANES	Exist Config: Four Lane Highway							√			
RV	L	INDIO	3A07097		0	0.0	0.0	VAN BUREN ST	Indio Blvd	Ave 48	WIDEN FROM 3 TO 6 LANES	Exist Config: Two Lane Highway						√				
RV	L	INDIO	3A07158		0	0.0	0.0	VARNER RD	Washington St	Adams St	WIDEN FROM 3 TO 4 LANES	Exist Config: Four Lane Highway				√						
RV	L	INDIO	3A07050		0	0.0	0.0	VARNER RD / AVE 42	Madison St	Monroe St	WIDEN FROM 2 TO 6 LANES	Exist Config: Two Lane Highway				√						
RV	L	INDIO	3A07064		0	0.0	0.0	VARNER RD / AVE 42	Monroe St	Jackson St	WIDEN FROM 2 TO 6 LANES	Exist Config: Two Lane Highway				√						
RV	L	INDIO	3A07075		0	0.0	0.0	VARNER RD / AVE 42	Jackson St	Golf Ctr Pkwy	WIDEN FROM 2 TO 6 LANES	Exist Config: Two Lane Highway				√						
RV	L	INDIO	3A07079		0	0.0	0.0	VARNER RD / AVE 42	Jefferson St	Madison St	WIDEN FROM 2 TO 6 LANES	Exist Config: Two Lane Highway				√						

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	LA QUINTA	3A07062		0	0.0	0.0	ADAMS ST	Before and after Bridge at Whitewater Channel		CONSTRUCT NEW 4 LANE BRIDGE	Exist Config: at grade low water crossing						√				
RV	L	LA QUINTA	3A07070		0	0.0	0.0	AVE 50	Jefferson Street	Madison Street	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction						√				
RV	L	LA QUINTA	3A01CV010		0	0.0	0.0	AVE 52	Jefferson Street	Madison Street incl. Bridge @ CV Canal	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction				√						
RV	L	LA QUINTA	3A07102		0	0.0	0.0	AVE 58	Jefferson St	Madison St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction					√					
RV	L	LA QUINTA	3A07106		0	0.0	0.0	AVE 58	Madison St	Monroe St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction					√					
RV	L	LA QUINTA	3A07061		0	0.0	0.0	DUNE PALMS RD	Br. at Whitewater Chnl		CONSTRUCT 4-LANE BRIDGE	Exist Config:						√				
RV	L	LA QUINTA	3A07063		0	0.0	0.0	FRED WARING DR	Washington St	Dune Palms Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction				√						
RV	L	LA QUINTA	3A07111		0	0.0	0.0	FRED WARING DR	Dune Palms Rd	Jefferson St	WIDEN FROM 3 TO 6 LANES	Exist Config:				√						
RV	L	LA QUINTA	3A01CV058		0	0.0	0.0	MADISON ST	Ave 54	Ave 52	CONSTRUCT NEW 4 LANE ROAD	Exist Config: New facility				√						
RV	L	LA QUINTA	3A01CV059B		0	0.0	0.0	MADISON ST	Ave 52	Ave 50	WIDEN FROM 3 TO 4 LANES	Exist Config:				√						
RV	L	LA QUINTA	3A07058		0	0.0	0.0	MADISON ST	Ave 56	Ave 54	WIDEN FROM 3 TO 6 LANES	Exist Config:			√							
RV	L	LA QUINTA	3A07093		0	0.0	0.0	MADISON ST	Ave 60	Ave 58	WIDEN FROM 4 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction				√						
RV	L	LA QUINTA	3A07103		0	0.0	0.0	MADISON ST	Ave 58	Ave 56 (Airport Blvd)	WIDEN FROM 4 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction				√						
RV	L	LAKE ELSINORE	3A04A13		0	0.0	0.0	AUTO CENTER DR (CASINO DR)	Franklin St	Diamond Dr (Railroad Cyn Rd)	WIDEN BRIDGE OVER SAN JACINTO RIVER FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	LAKE ELSINORE	3A04A14		0	0.0	0.0	FRANKLIN ST	Avenue 6	Canyon Estates Dr	WIDEN STREET AND BRIDGE OVER I-15 FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	LAKE ELSINORE	3A04WT042		0	0.0	0.0	GRAND AVE	Toft Dr	SR-74	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	LAKE ELSINORE	3A04WT043		0	0.0	0.0	LAKE ST	I-15	Lincoln St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	LAKE ELSINORE	3A04A18		0	0.0	0.0	LEMON ST	Mission Tr	Grape St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	LAKE ELSINORE	3A04A15		0	0.0	0.0	MALAGA RD	Mission Tr	Casino Dr/Lakeview Terrace	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	LAKE ELSINORE	3A01WT044		0	0.0	0.0	MISSION TR	Railroad Canyon Rd	Bundy Canyon Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction				√						
RV	L	LAKE ELSINORE	3A04A11		0	0.0	0.0	NICHOLS RD	Collier Ave	Dexter Ave	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	LAKE ELSINORE	3A04A12		0	0.0	0.0	OLIVE ST	Mission Tr	Orchard St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction							√			
RV	L	LAKE ELSINORE	3A01WT045		0	0.0	0.0	SR-74 (GRAND AVE)	Riverside Dr (SR-74)	Ortega Hwy (SR-74)	WIDEN FROM 4 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	LAKE ELSINORE	3A04WT046		0	0.0	0.0	SR-74 (RIVERSIDE DR)	Lakeshore Dr	Grand Ave	WIDEN FROM 4 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	LAKE ELSINORE	3A04WT047	RIV091007 (partial)	0	0.0	0.0	SR-74 (RIVERSIDE DR/COLLIER AVE)	I-15	Lakeshore Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	LAKE ELSINORE	3A10WT04		0	0.0	0.0	SR-74	WEST OF I-15	ORTEGA HWY	IN MID-WESTERN RIVERSIDE COUNTY IN THE CITY OF LAKE ELSINORE, WIDEN SR-74 FROM 2 TO 4 THROUGH LANES WEST OF I-15 (HUNCO WAY) TO THE ORTEGA HWY (SR-74).	Exist Config: SR-74 in the City of Lake Elsinore, west of the I-15 freeway, narrows from a 4 lane arterial to a 2-lane collector route - there are a few places where widening from 2 to 4 lanes has occurred.								√		
RV	L	MARCH JOINT POWERS AUTHORITY	RIV060121	RIV060121	0	0.0	0.0	VAN BUREN BL	0.5 Miles west of I-215	Barton St.	ON VAN BUREN BLVD NEAR MARCH AIR RESERVE BASE: WIDEN FROM 4 TO 6 LANES FROM APPROXIMATELY 0.5 MILES WEST OF I-215 TO BARTON ST	WIDEN FROM 4 TO 6 LANES	√	√					√			
RV	L	MORENO VALLEY	3A01WT049A	RIV080905	0	0.0	0.0	ALESSANDRO BL	I-215	Frederick St	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction							√			
RV	L	MORENO VALLEY	3A01WT049B		0	0.0	0.0	ALESSANDRO BL	Frederick St	Perris Blvd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction						√				
RV	L	MORENO VALLEY	3A01WT050A	RIV080906	0	0.0	0.0	ALESSANDRO BL	500' w/o Kitching St	500' e/o Kitching St	WIDEN ALESSANDRO BLVD AT KITCHING ST INTERSECTION FROM 2 TO 6 LANES INCL BRIDGE WIDENING OVER EXISTING KITCHING ST FLOOD CHANNEL	Exist Config: 2 lanes - 1 in each direction		√		√						
RV	L	MORENO VALLEY	3A01WT050B		0	0.0	0.0	ALESSANDRO BL	Perris Blvd	500' w/o Kitching St	WIDEN ALESSANDRO BLVD FROM PERRIS BLVD TO 500' W/O KITCHING ST FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	MORENO VALLEY	3A01WT050C		0	0.0	0.0	ALESSANDRO BL	500' e/o Kitching St	Nason St	WIDEN ALESSANDRO BLVD FROM 500' E/O KITCHING ST TO NASON ST FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	MORENO VALLEY	3A01WT051	RIV080907	0	0.0	0.0	ALESSANDRO BL	Nason St	Gillman Springs	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	MORENO VALLEY	RIV071241	RIV071241	0	0.0	0.0	AT GRAHAM ST	Sunnymead Bld	Hemlock Ave	IN MORENO VALLEY ON GRAHAM ST: CONSTRUCT 4 THROUGH LANE OC (2 LANES EACH DIR) OVER SR60 BETWEEN SUNNYMEAD BLVD AND HEMLOCK AVE, ADD SIGNALS AT HEMLOCK, LEFT-TURN POCKET LANES AT BOTH INTERSECTIONS, AND ADD PEDESTRIAN SIDEWALK (APPROX ¼ MILE) ON OC BOTH SIDES	**EXISTING CONDITIONS:** Arterial through lanes in project limits: 0 Arterial through lanes s/o project limits (s/o Sunnymead Blvd): 4 lanes (2 lanes in each direction) Arterial through lanes n/o project limits (n/o Hemlock Ave): 2 lanes (1 lane in each direction) **IMPROVEMENTS:** Cross Street references: Sunnymead Blvd. to Hemlock Ave. Arterial through lanes in project limits: 4 (2 in each direction)	√							√		
RV	L	MORENO VALLEY	3A10WT01	RIV091004	0	0.0	0.0	CACTUS AVE	LASSELLE ST	NASON ST	IN WESTERN RIVERSIDE COUNTY IN THE CITY OF MORENO VALLEY, WIDEN CACTUS AVENUE FROM TWO TO FOUR THROUGH LANES (2 IN EA DIR), FROM LASSELLE ST. TO NASON ST. OTHER IMPROVEMENTS INCLUDE THE INSTALLATION OF A DEDICATED RIGHT-TURN LANE, A TWO-WAY LEFT TURN LANE, BUS TURN-OUTS, LANDSCAPING, AND SIDEWALKS.	EXISTING CONDITIONS: CACTUS AVE IS CURRENTLY A TWO LANE ARTERIAL (1 LN IN EA DIR) FROM LASSELLE ST TO NASON ST.		√					√			

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	MORENO VALLEY	RIV071240	RIV071240	0	0.0	0.0	EASTBOUND CACTUS AVE	Veterans Way	Heacock St	IN THE CITY OF MORENO VALLEY - EAST BOUND CACTUS AVE WIDENING BETWEEN VETERANS WAY & HEACOCK: WIDENING OF EAST BOUND CACTUS AVE FROM 2 TO 3 LANES, INCLUDING TRAFFIC SIGNAL MODIFICATIONS WITHIN THE PROJECT REACH, CHANNELIZATION, AND SIGNAL INTERCONNECT SYSTEM	**EXISTING CONDITIONS:** Arterial through lanes: 2 east bound direction only Ramp lanes: **IMPROVEMENTS:** Cross Street references: Veterans Way and Heacock Ave. Arterial through lanes: 3 east bound direction only	√	√				√				
RV	L	MORENO VALLEY	3A04WT052		0	0.0	0.0	EUCALYPTUS AVE	I-215	Towngate Blv	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction							√			
RV	L	MORENO VALLEY	3A10WT02	RIV091002	0	0.0	0.0	EUCALYPTUS AVE	REDLANDS BLVD	THEODORE ST	IN WESTERN RIVERSIDE COUNTY IN THE CITY OF MORENO VALLEY, CONSTRUCT EUCALYPTUS AVENUE EXTENSION AS 3 THROUGH LANES (2 LANES WB & 1 LANE EB) BETWEEN REDLANDS BLVD AND THEODORE ST, INCLUDING THE INSTALLATION OF MEDIANS, LEFT TURN POCKETS, DEDICATED RIGHT TURN LANES, DRAINAGE IMPROVEMENTS, LANDSCAPING, SIDEWALKS, AND A CLASS I BIKE PATH.	REALIGNMENT IS NECESSARY. EUCALYPTUS WILL BE REALIGNED ALONG THE CURRENT R/W AS WELL AS R/W CURRENTLY HELD BY FIR AVE (FIR AVE SERVES AS A CONNECTING ROAD BTWN REDLANDS & THEODORE). THE WESTERN LIMIT WILL END IN A CUL-DE-SAC WITH AN ACCESS ROAD CONNECTING TO REDLANDS BLVD.		√				√				
RV	L	MORENO VALLEY	3A10WT03	RIV091003	0	0.0	0.0	EUCALYPTUS AVE	REDLANDS BLVD	THEODORE ST	IN WESTERN RIVERSIDE COUNTY IN THE CITY OF MORENO VALLEY, CONSTRUCT 4TH THROUGH LANE ON EUCALYPTUS AVE IN THE EASTERN DIRECTION TO REDLANDS BLVD, WITH A SIGNALIZED INTERSECTION.	SIDEWALKS AND CLASS I BIKE PATH WILL BE PROVIDED AS PART OF THE PROJECT.							√			
RV	L	MORENO VALLEY	3A07162		0	0.0	0.0	EUCALYPTUS AVE	Towngate Blv	Elsworth St	STREET IMPROVEMENT / WIDENING	Exist Config: 4 lanes							√			
RV	L	MORENO VALLEY	3A01WT053		0	0.0	0.0	GILMAN SPRINGS RD	SR-60	Alessandro Blvd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	MORENO VALLEY	3A04WT054	RIV080910	0	0.0	0.0	HEACOCK ST	Cactus Ave	San Michele Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction		√				√				
RV	L	MORENO VALLEY	3A07160		0	0.0	0.0	HEACOCK ST	Eucalyptus	Fir	STREET IMPROVEMENT / WIDENING	Exist Config: 4 lanes, 2 in each direction. Some sections need to be widened and improved to full width.								√		
RV	L	MORENO VALLEY	3A07168		0	0.0	0.0	HEACOCK ST	Dracaea	Eucalyptus	STREET IMPROVEMENT / WIDENING	Exist Config: 4 lanes, 2 in each direction. Some sections need to be widened and improved to full width.								√		
RV	L	MORENO VALLEY	3A07169		0	0.0	0.0	HEACOCK ST	Ironwood Ave	Manzanita Ave	STREET IMPROVEMENT / WIDENING	Exist Config: 4 lanes, 2 in each direction. Some sections need to be widened and improved to full width.								√		
RV	L	MORENO VALLEY	RIV060122	RIV060122	0	0.0	0.0	HEACOCK ST	OVER PERRIS VALLEY STORM DRAIN		IN MORENO VALLEY ON HEACOCK ST OVER PERRIS VALLEY STORM DRAIN (APPROX 2.7 MILES N/O RAMONA EXPWY): REPLACE EXISTING 2 LANE BRIDGE WITH A 4 LANE BRIDGE (BRIDGE #56C0233)	WIDEN BRIDGE FROM 2 TO 4 LANES	√	√				√				
RV	L	MORENO VALLEY	3A0801	RIV080911	0	0.0	0.0	HEACOCK ST	San Michele Rd	Oleander Ave (Harley Knox Rd)	WIDEN HEACOCK ST FROM 2 TO 4 LANES FROM SAN MICHELE RD TO OLEANDER AVE (HARLEY KNOX RD) INCL BRIDGE AT PVSD LATERAL B AND REALIGNMENT OF SUBSTANDARD "S" CURVE								√		
RV	L	MORENO VALLEY	3A04WT055		0	0.0	0.0	INDIAN ST	San Michele Rd	Oleander Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	S	MORENO VALLEY	3A07045	RIV071242	60	15.9	15.9	INDIAN ST	Hemlock St	150' South of Sunnymead Bld	WIDEN OC FROM 2 TO 4 LANES	Exist Config: 2 Lane - 1 in each direction OC								√		
RV	L	MORENO VALLEY	3A04WT056A		0	0.0	0.0	BOX SPRINGS RD (IRONWOOD AVE)	Morton Rd	500' w/o Clark St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	MORENO VALLEY	3A04WT056B	RIV080912	0	0.0	0.0	BOX SPRINGS RD (IRONWOOD AVE)	500' w/o Clark St	Day St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	MORENO VALLEY	3A04WT056C	RIV080913	0	0.0	0.0	IRONWOOD AVE	Day St	Barclay Dr	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction		√								
RV	L	MORENO VALLEY	3A04WT056D		0	0.0	0.0	IRONWOOD AVE	Barclay Dr	Heacock St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction					√					
RV	L	MORENO VALLEY	3A04WT056E	RIV080914	0	0.0	0.0	IRONWOOD AVE	Heacock St	Perris Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction		√				√				
RV	L	MORENO VALLEY	3A04WT056F	RIV080915	0	0.0	0.0	IRONWOOD AVE	Perris Blvd	Nason St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction		√				√				
RV	L	MORENO VALLEY	3A04WT056G		0	0.0	0.0	IRONWOOD AVE	Nason St	Redlands Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	MORENO VALLEY	3A0805	RIV090911	0	0.0	0.0	KITCHING ST	Gentian Ave	Alessandro Blvd	IN THE CITY OF MORENO VALLEY, WIDEN AND EXTEND KITCHING ST TO 4 LANES FROM GENTIAN AVE TO ALESSANDRO BLVD	Existing Configuration: Gentian Ave to Cactus Ave: one lane each direction; Cactus Ave to Brodiaea Ave: two lanes each direction; Brodiaea Ave to 620' s/o Alessandro: one lane each direction; 620' s/o Alessandro to Alessandro: no lanes exist						√				
RV	L	MORENO VALLEY	3A01WT057A		0	0.0	0.0	LASSELLE ST	Alessandro	John F Kennedy	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction				√						
RV	L	MORENO VALLEY	3A01WT057B		0	0.0	0.0	LASSELLE ST	Eucalyptus	Alessandro	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	MORENO VALLEY	3A07105		0	0.0	0.0	MORENO BEACH DR	Reche Canyon Rd	SR-60	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	MORENO VALLEY	3A07155	RIV080917	0	0.0	0.0	MORENO BEACH DR	Cactus Ave	Automall Dr.	WIDEN 2 TO 6 LANES / STREET IMPROVEMENT	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	MORENO VALLEY	3A04WT070		0	0.0	0.0	NASON ST	Ironwood Ave	Alessandro Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction					√					
RV	L	MORENO VALLEY	3A07101		0	0.0	0.0	NASON ST	Iris Ave	Delphinium Av	CONSTRUCT 4 LANES	Exist Config: No existing facility								√		
RV	L	MORENO VALLEY	3A07119		0	0.0	0.0	NASON ST	Cactus Ave	Alessandro Blvd	WIDEN 4 TO 6 LANES / STREET IMPROVEMENT	Exist Config: 4 lanes - 2 in each direction					√					
RV	L	MORENO VALLEY	3A07135		0	0.0	0.0	NASON ST	Delphinium Ave	Cactus Ave	CONSTRUCT 6 LANES	Exist Config: No existing facility					√					
RV	L	MORENO VALLEY	3A07154		0	0.0	0.0	NASON ST	Elder Ave	Ironwood Ave	WIDEN 2 TO 4 LANES / STREET IMPROVEMENT	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	MORENO VALLEY	3A01WT062		0	0.0	0.0	PERRIS BL	Reche Vista Dr	Ironwood Ave	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction					√					
RV	L	MORENO VALLEY	3A07140		0	0.0	0.0	PERRIS BL	Ironwood Ave	Sunnymead Bld	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 Lane - 2 in each direction								√		
RV	L	MORENO VALLEY	3A07170		0	0.0	0.0	PERRIS BL	Dracaea	Fir	WIDEN FROM 4 TO 6 LANES / STREET IMPROVEMENT	Exist Config: 4 lanes - 2 in each direction								√		

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	MORENO VALLEY	RIV011205	RIV011205	0	0.0	0.0	PERRIS BL	RAMONA EXPRESSWAY	PERRIS VALLEY	IN PERRIS - WIDEN PERRIS BLVD 2 TO 6 LANES FROM RAMONA EXPRESSWAY TO PERRIS VALLEY STORM DRAIN - LATERAL 'B' (APPROX. 1 MILE), INCLUDING CURB, GUTTER, SIDEWALK, AND RAISED MEDIAN.	Existing Conditions: Arterial through lanes: 2 (1 in each direction) IMPROVEMENTS: Arterial through lanes: 6 (3 in each direction) Other improvements include: curb, gutter, sidewalk, and raised median.	√						√			
RV	L	MORENO VALLEY	RIV041044	RIV041044	0	0.0	0.0	PERRIS BL	PERRIS VALLEY STORM DRAIN LATERAL B	CACTUS AVE	IN MORENO VALLEY: WIDEN PERRIS BLVD 2 TO 6 LNS (PERRIS VALLEY STORM DRAIN LATERAL B TO CACTUS AVE., INCLUDING CURB, GUTTER, SIDEWALKS, SIGNALS, & MEDIANS	WIDEN TO 6 LANES	√	√				√				
RV	L	MORENO VALLEY	RIV041045	RIV041045	0	0.0	0.0	PERRIS BL	IRONWOOD AVE	MANZANITA AVE	WIDEN PERRIS BLVD FROM 2 TO 4 LANES FROM IRONWOOD AVE TO MANZANITA AVE INCLUDING CURB, GUTTER, SIDEWALKS, SIGNAL MODS, STREET LIGHTS & MEDIANS IMPROVEMENTS	WIDE FROM 2 TO 4 LANES	√	√				√				
RV	L	MORENO VALLEY	3A04WT064		0	0.0	0.0	PIGEON PASS RD	Cantarini	Ironwood Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction				√						
RV	L	MORENO VALLEY	3A04WT065		0	0.0	0.0	RECHE CANYON RD	Reche Vista Dr	Moreno Beach Dr	CONSTRUCT 4 LANE ARTERIAL	Exist Config: No existing facility								√		
RV	L	MORENO VALLEY	3A01WT066		0	0.0	0.0	RECHE VISTA DR	Reche Canyon Rd	Heacock St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	MORENO VALLEY	3A01WT067		0	0.0	0.0	REDLANDS BL	Locust Ave	Alessandro Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	MORENO VALLEY	3A07148		0	0.0	0.0	REDLANDS BL	Ironwood Ave	Kalmia Ave	WIDEN 2 TO 4 LANES / STREET IMPROVEMENT	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	MORENO VALLEY	3A07156	RIV080918	0	0.0	0.0	REDLANDS BL	Cactus Ave	SR-60	WIDEN 2 TO 4 LANES / STREET IMPROVEMENT	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	MORENO VALLEY	3A07159		0	0.0	0.0	REDLANDS BL	Kalmia Ave	Locust Ave	WIDEN 2 TO 4 LANES / STREET IMPROVEMENT	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	MORENO VALLEY	3A07161		0	0.0	0.0	REDLANDS BL	Spruce Ave	Ironwood Ave	WIDEN 2 TO 4 LANES / STREET IMPROVEMENT	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	MORENO VALLEY	3A04WT068		0	0.0	0.0	SAN MICHELE RD	Heacock St	Indian Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction					√					
RV	L	MORENO VALLEY	3A0806		0	0.0	0.0	THEODORE ST	Ironwood Ave	SR-60 WB ramps	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	MORENO VALLEY	3A0807	RIV090909	0	0.0	0.0	THEODORE ST	SR-60 EB ramps	Eucalyptus Ave	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	MORENO VALLEY	3A0808	RIV090908	0	0.0	0.0	THEODORE ST	Eucalyptus Ave	Alessandro Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	MURRIETA	3A01WT072		0	0.0	0.0	CLINTON KEITH RD	Coppercraft	Toulon Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction								√		
RV	L	MURRIETA	3A01WT073		0	0.0	0.0	CLINTON KEITH RD	I-215	Meadowlark Ln	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction								√		
RV	L	MURRIETA	3A01WT083		0	0.0	0.0	CLINTON KEITH RD	Toulon Dr	I-215	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction				√						
RV	L	MURRIETA	3A07059		0	0.0	0.0	FRENCH VALLEY (DATE)	SR-79 (Winchester)	Margarita Rd	WIDEN 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	MURRIETA	RIV031204	RIV031204	0	0.0	0.0	GUAVA ST	WASHINGTON AVENUE	ADAMS AVENUE	IN MURRIETA - CONSTRUCT NEW 2 LANE GUAVA ST. BRIDGE (400') OVER MURRIETA CREEK FROM WASHINGTON AVE TO ADAMS AVE W/ SHOULDERS & ALL REQUIRED APPROACHES (HBRR#: 56C0162)	CONSTRUCT NEW 2 LANE BRIDGE	√	√						√		
RV	L	MURRIETA	3A04WT074		0	0.0	0.0	HUNTER RD	Los Alamos Rd	Via Mira Mosa	CONSTRUCT 2 LANE ARTERIAL	Exist Config: New facility								√		
RV	L	MURRIETA	3A01WT075		0	0.0	0.0	JEFFERSON AVE	Palomar St	Nutmeg St	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility								√		
RV	L	MURRIETA	3A01WT076		0	0.0	0.0	JEFFERSON AVE	Nutmeg St	Murrieta Hot Springs Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	MURRIETA	3A04WT077		0	0.0	0.0	LOS ALAMOS RD	Jefferson Ave	I-15	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction		√								
RV	L	MURRIETA	3A10WT07		0	0.0	0.0	LOS ALAMOS RD. OC @ I-15	MONROE AVE	MADISON AVE	IN SW RIVERSIDE COUNTY, REPLACE TWO-LANE LOS ALAMOS RD BRIDGE OVER I-15 WITH FOUR-LANE OVERCROSSING	EXISTING CONDITIONS: 2-LANE BRIDGE OVERCROSSING AT I-15/LOS ALAMOS RD (VERTICAL CLEARANCE IS SUBSTANDARD)						√				
RV	L	MURRIETA	3A07010		0	0.0	0.0	LOS ALAMOS RD	I-15	I-215	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction					√					
RV	L	MURRIETA	3A04WT078		0	0.0	0.0	MENIFEE RD	Keller Rd	Clinton Keith Rd	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility								√		
RV	L	MURRIETA	3A04WT079		0	0.0	0.0	MENIFEE RD	Holland Rd	Garbani Rd	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility								√		
RV	L	MURRIETA	3A04WT080		0	0.0	0.0	MENIFEE RD	Garbani Rd	Scott Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	MURRIETA	3A04WT081		0	0.0	0.0	MURRIETA HOT SPRINGS RD	I-215	Margarita Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction								√		
RV	L	MURRIETA	3A07072		0	0.0	0.0	MURRIETA HOT SPRINGS RD	Margarita Rd	SR-79 (Winchester)	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction								√		
RV	L	MURRIETA	3A04WT082		0	0.0	0.0	NUTMEG ST	Jefferson Ave	Clinton Keith Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	MURRIETA / RIVERSIDE COUNTY	3A01WT071		0	0.0	0.0	CLINTON KEITH RD	I-15	Coppercraft	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction							√			
RV	L	MURRIETA / RIVERSIDE COUNTY	3A01WT174		0	0.0	0.0	MURRIETA HOT SPRINGS RD	Margarita Rd	SR-79 (Winchester)	WIDEN FROM 4 TO 6 LANES	Exist Config:								√		
RV	L	NORCO	3A04WT086		0	0.0	0.0	1ST ST	Parkridge Ave	Hamner Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction						√				
RV	L	NORCO	3A04WT087		0	0.0	0.0	2ND ST	River Rd	Hamner Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	NORCO	3A04WT088		0	0.0	0.0	CORYDON AVE	River Rd	Norco Dr	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	NORCO	3A04WT089		0	0.0	0.0	HAMNER AVE	Cota Street	Hamner Ave	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction								√		
RV	L	NORCO	3A04WT090		0	0.0	0.0	HILLSIDE AVE	1st St	Hidden Valley Pkwy	CONSTRUCT 2 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	NORCO	3A04WT091		0	0.0	0.0	NORCO DR	Corydon Ave	Hamner Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction						√				
RV	L	PALM DESERT	3A07136		0	0.0	0.0	COOK ST	Frank Sinatra	Country Club Dr.	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM DESERT	3A07299		0	0.0	0.0	COOK ST	Br. at Whitewater Chnl		WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM DESERT	3A07300		0	0.0	0.0	COOK ST	Frank Sinatra Dr	Gerald Ford Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial		√		√	√					
RV	L	PALM DESERT	3A07301		0	0.0	0.0	COOK ST	Country Club	Whitewater Brg.	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM DESERT	3A07311		0	0.0	0.0	COOK ST	Whitewater Br.	Fred Waring Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM DESERT	3A01CV030		0	0.0	0.0	COUNTRY CLUB DR	El Dorado Drive	Oasis Club Drive	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM DESERT	3A01CV031		0	0.0	0.0	COUNTRY CLUB DR	Oasis Club Drive	Washington Street	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM DESERT	3A01CV033		0	0.0	0.0	COUNTRY CLUB DR	Portola Avenue	Cook Street	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM DESERT	3A07123		0	0.0	0.0	COUNTRY CLUB DR	Cook Street	Eldorado Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM DESERT	3A01CV040A		0	0.0	0.0	FRANK SINATRA DR	Eldorado Dr	Tamarisk Row Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM DESERT	3A01CV040B		0	0.0	0.0	FRANK SINATRA DR	Cook St	Eldorado Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	

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CO	SYS*	LEAD AGENCY	RTP ID	RTIP ID	RTE	BEG PM	END PM	STREET	FROM	TO	DESCRIPTION	ADDITIONAL DETAILS, IF AVAILABLE	2008 RTIP	NO BUILD	NETWORK YR (PROJECT COMPLETION BY)**							
															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	PALM DESERT	3A07304		0	0.0	0.0	FRANK SINATRA DR	Monterey Ave	Portola Ave	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM DESERT	3A07306		0	0.0	0.0	FRANK SINATRA DR	Portola Ave	Cook St	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM DESERT	3A07312		0	0.0	0.0	GERALD FORD DR	Cook St	Frank Sinatra Dr	WIDEN FROM 3 TO 4 LANES	Exist Config: 2 WB, I EB								√		
RV	L	PALM DESERT	RIV071248	RIV071248	0	0.0	0.0	MONTEREY AVE	On Monterey Ave (Fred Waring to Magnesia Falls)	On Fred Waring Dr (Monterey to San Pascual)	ON MONTEREY AVE (FRED WARING TO MAGNESIA FALLS) & FRED WARING DR (MONTEREY TO SAN PASCUAL) INT. CHANNELIZATION IMP. ADD AUXILIARY LANES - NB MONTEREY AVE BETWEEN FRED WARING AND COLLEGE OF THE DESERT ENTRANCE AND BETWEEN COLLEGE OF THE DESERT ENTRANCE AND MAGNESIA FALLS.	NOTE: TURN LANES ARE NOT MODELED; THIS IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY --ADD DEDICATED RT TURN LNS - NB MONTEREY TO COLLEGE OF THE DESERT ENTRANCE & AT MAGNESIA FALLS --ADD FREE RT TURN LN - WB FRED WARING TO NB MONTEREY AVE --ADD RT TURN POCKET LNS - NB SAN PABLO TO EBWB FRED WARING & WB FRED WARING TO NB CIVIC CENTER ENTRANCE.	√					√				
RV	L	PALM DESERT	3A01CV069		0	0.0	0.0	MONTEREY AVE	Country Club Dr	Frank Sinatra Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial				√						
RV	L	PALM DESERT	3A07310		0	0.0	0.0	MONTEREY AVE	Highway 111	Fred Waring Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial						√				
RV	L	PALM DESERT	RIV011201	RIV011201	0	0.0	0.0	MONTEREY AVE	DIANAH SHORE DRIVE	GERALD FORD DRIVE	IN PALM DESERT/RANCHO MIRAGE - WIDEN MONTEREY AVE FROM 4 TO 6 LANES, INSTALL CURB/GUTTER & MEDIAN, AND UTLITY RELOCATION FROM DINAH SHORE DR TO GERALD FORD DR (APPROX 1 MILE)	WIDEN FROM 4 TO 6 LANES	√	√	√							
RV	L	PALM DESERT	3A07122		0	0.0	0.0	PORTOLA AVE	Frank Sinatra Drive	Gerald Ford Drive	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM DESERT	3A07297		0	0.0	0.0	PORTOLA AVE	Future Portola Ave I-10 IC		CONSTRUCT AN INTERCHANGE	Exist Config: none							√			
RV	L	PALM DESERT	3A07298		0	0.0	0.0	PORTOLA AVE	Magnesia Falls Dr	Country Club Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM DESERT	3A07305		0	0.0	0.0	PORTOLA AVE	Country Club Dr	Frank Sinatra Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM DESERT	3A07309		0	0.0	0.0	PORTOLA AVE	Gerald Ford Dr	I-10	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial							√			
RV	L	PALM DESERT	3A07314		0	0.0	0.0	PORTOLA AVE	Hwy 111	Magnesia Falls Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM SPRINGS	3A04A20		0	0.0	0.0	ARABY DR	Anza Tr	Stagecoach Rd	CONSTRUCT NEW BRIDGE CROSSING OVER PALM CANYON WASH	Exist Config: Low water crossing									√	
RV	L	PALM SPRINGS	RIV000103	RIV000103	0	0.0	0.0	Belardo Road	Ramond Road	S. Palm Canyon Dr.	Construct Belardo Rd. - 2 thorugh lanes (1 ea. Dir)	Exist Config: none		√				√				
RV	L	PALM SPRINGS	RIV010213	RIV010213	0	0.0	0.0	AT GENE AUTRY TRAIL RAILRD BRIDGE	1700' S/O Union Pacific Rail Road Bridge	Salvia Road	WIDEN GENE AUTRY TRAIL FROM 2 TO 6 LANES (3 IN EACH DIRECTION), INCLUDING WIDENING OF EXISTING UPRR OVERCROSSING (BRIDGE 56C0082) FROM 1700' S/O UPRR BRIDGE TO SALVIA ROAD	WIDEN FROM 2 TO 6 LANES	√	√				√				
RV	L	PALM SPRINGS	3A07009		0	0.0	0.0	CROSSLEY RD / GOLF CLUB DR	Ave 34	Los Santos (Incl. Br. at Palm Cyn Chnl)	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM SPRINGS	3A07095		0	0.0	0.0	CROSSLEY RD / GOLF CLUB DR	Mesquite Ave	Ave 34	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lane arterial									√	
RV	L	PALM SPRINGS	3A07112		0	0.0	0.0	CROSSLEY RD / GOLF CLUB DR	Ramon Rd	Mesquite Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lane arterial								√		
RV	L	PALM SPRINGS	3A07134		0	0.0	0.0	CROSSLEY RD / GOLF CLUB DR	Los Santos	E Palm Cyn	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM SPRINGS	3A07026		0	0.0	0.0	DILLON RD	SR-62	Indian Ave	WIDEN FROM 2 TO 2 LANES	Exist Config: 2 lane arterial									√	
RV	L	PALM SPRINGS	3A07034		0	0.0	0.0	E PALM CYN DR	Farrell Dr	Gene Autry Trail	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM SPRINGS	3A07066		0	0.0	0.0	E PALM CYN DR	Palm Cyn Dr	Sunrise Way	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM SPRINGS	3A07157		0	0.0	0.0	E PALM CYN DR	Sunrise Way	Farrell Dr	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM SPRINGS	3A07004		0	0.0	0.0	GENE AUTRY TRAIL	Whitewater Rvr Br. Xing		WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lane arterial									√	
RV	L	PALM SPRINGS	RIV62000	RIV62000	0	0.0	0.0	GENE AUTRY TRAIL	VISTA CHINO	SOUTH SIDE OF UNION PACIFIC RAILROAD BRIDGE	IN PALM SPRINGS ON GENE AUTRY TRAIL - WIDEN 2 TO 6 LANES FROM VISTA CHINO TO VIA ESCUELA & 2 TO 4 LANES FROM VIA ESCUELA TO THE SOUTH SIDE OF UP RAILROAD BRIDGE	WIDEN 2 TO 4 LANES	√	√	√							
RV	L	PALM SPRINGS	3A07002		0	0.0	0.0	INDIAN AVE	Old Palm Springs City Limit	RR Xing (Incl. Br. at Whitewater Rvr)	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lane arterial									√	
RV	L	PALM SPRINGS	3A07054		0	0.0	0.0	INDIAN AVE	19th Ave	Dillon Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lane arterial									√	
RV	L	PALM SPRINGS	3A07139		0	0.0	0.0	INDIAN AVE	20th Ave	19th Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lane arterial									√	
RV	L	PALM SPRINGS	3A07163		0	0.0	0.0	INDIAN AVE	Intersection of Indian Ave & 20th Ave		WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lane arterial									√	
RV	L	PALM SPRINGS	3A07038		0	0.0	0.0	INDIAN CANYON DR	Racquet Club Rd	Old Palm Springs City Limits	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM SPRINGS	3A07084		0	0.0	0.0	INDIAN CANYON DR	Ramon Rd	Tahquitz Cyn Way	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM SPRINGS	3A07133		0	0.0	0.0	INDIAN CANYON DR	Tahquitz Cyn Way	Alejo Rd	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM SPRINGS	3A07142		0	0.0	0.0	INDIAN CANYON DR	Tachevah Dr	Vista Chino	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM SPRINGS	3A07143		0	0.0	0.0	INDIAN CANYON DR	Alejo Rd	Tachevah Dr	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM SPRINGS	3A07153		0	0.0	0.0	INDIAN CANYON DR	Vista Chino	Racquet Club Rd	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM SPRINGS	RIV011203	RIV011203	0	0.0	0.0	INDIAN CANYON DR	UPRR BRIDGE	TRAMVIEW ROAD	IN PALM SPRINGS - WIDEN INDIAN CANYON DRIVE FROM 2 TO 4 LANES AT GRADE (NO BRIDGE) FROM THE UPRR BRIDGE TO TRAMVIEW ROAD (APPROX 2 MILES)	WIDEN FROM 2 TO 4 LANES --- CHG'D DESCRIPTION FROM 2 TO 6 LANES	√	√				√				
RV	L	PALM SPRINGS	RIV990727	RIV990727	0	0.0	0.0	INDIAN CANYON DR	UPRR BRIDGE	GARNET ROAD AT I-10	IN PALM SPRINGS: WIDEN INDIAN CANYON DR 2 TO 6 LANES (INCLUDING UPRR BRIDGE REPLACEMENT/WIDENING) FROM UPRR BRIDGE TO GARNET RD AT I-10 (HBRR#: 56C0025)	WIDEN FROM 2 TO 6 LANES	√	√						√		
RV	L	PALM SPRINGS	3A07104		0	0.0	0.0	PALM CANYON DR	Ramon Rd	Mesquite Ave	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial									√	

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CO	SYS*	LEAD AGENCY	RTP ID	RTIP ID	RTE	BEG PM	END PM	STREET	FROM	TO	DESCRIPTION	ADDITIONAL DETAILS, IF AVAILABLE	2008 RTIP	NO BUILD	NETWORK YR (PROJECT COMPLETION BY)**							
															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	PALM SPRINGS	3A07114		0	0.0	0.0	PALM CANYON DR	Tahquitz Cyn Rd	Ramon Rd	WIDEN FROM 3 TO 3 LANES	Exist Config: 3 lane arterial									√	
RV	L	PALM SPRINGS	3A07118		0	0.0	0.0	PALM CANYON DR	Alejo Rd	Tahquitz Cyn Rd	WIDEN FROM 3 TO 3 LANES	Exist Config: 3 lane arterial									√	
RV	L	PALM SPRINGS	3A07124		0	0.0	0.0	PALM CANYON DR	Mesquite Ave	E Palm Cyn Dr	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM SPRINGS	3A07150		0	0.0	0.0	PALM CANYON DR	Tachevah Dr	Alejo Rd	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM SPRINGS	3A07286		0	0.0	0.0	PALM CANYON DR	Vista Chino	Tachevah Dr	WIDEN FROM 4 TO 4 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM SPRINGS	RIV031206	RIV031206	0	0.0	0.0	PALM CANYON DR	OVER ARENAS CYN SOUTH DRAINAGE CHANNEL		ON S. PALM CANYON DR OVER ARENAS CYN SOUTH DRAINAGE CHANNEL: REPLACE EXISTING 2 LANE LOW-WATER CROSSING W/ A NEW 4 LANE BRIDGE & DRAINAGE IMPROVEMENTS (HBRR#: 00L0027)	NEW 4 LANE BRIDGE	√	√					√			
RV	L	PALM SPRINGS	RIV060110	RIV060110	0	0.0	0.0	PALM CANYON DR	MURRAY CANYON RD	BOGERT TRAIL	IN PALM SPRINGS: WIDEN S. PALM CANYON DR FROM 2 TO 4 LANES FROM MURRAY CANYON RD TO BOGERT TR (BRIDGE PORTION OVER ARENAS CYN CHANNEL IN RIV031206)	WIDEN FROM 2 TO 4 LANES	√	√		√						
RV	L	PALM SPRINGS	3A01CV081		0	0.0	0.0	RAMON RD	Palm Canyon Dr	Sunrise Way	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial						√				
RV	L	PALM SPRINGS	3A07005		0	0.0	0.0	RAMON RD	Indian Cyn	Sunrise Way (Incl. Baristo Storm Chnl Xing)	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM SPRINGS	3A07046		0	0.0	0.0	RAMON RD	El Cielo Rd	Gene Autry Trail	WIDEN FROM 6 TO 6 LANES	Exist Config: 6 lane arterial									√	
RV	L	PALM SPRINGS	3A07068		0	0.0	0.0	RAMON RD	Gene Autry Trail	W Bank of the Whitewater Rv	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM SPRINGS	3A07083		0	0.0	0.0	RAMON RD	Sunrise Way	Farrell Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM SPRINGS	3A07100		0	0.0	0.0	RAMON RD	Br. at Whitewater Rvr		WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM SPRINGS	3A07113		0	0.0	0.0	RAMON RD	Farrell Dr	El Cielo Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	L	PALM SPRINGS	3A07145		0	0.0	0.0	RAMON RD	Palm Cyn Dr	Indian Cyn Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial								√		
RV	L	PALM SPRINGS	RIV031205	RIV031205	0	0.0	0.0	RAMON RD	EL CIELO	SUNRISE WAY	IN THE CITY OF PALM SPRINGS - WIDEN RAMON ROAD 4 TO 6 LANES FROM EL CIELO TO SUNRISE WAY (APPROX 1 MILE) WITH INTERSECTION WIDENING AT EL CIELO RD (ADD WB RT TURN LANE), AT FARRELL DR (ADD SB LEFT TURN LANE), & AT SUNRISE WY (ADD SB LEFT, NB LEFT, AND WB LEFT).	WIDEN FROM 4 TO 6 LANES	√							√		
RV	L	PALM SPRINGS	3A04A21		0	0.0	0.0	SALVIA RD	Indian Canyon Dr	Gene Autry Tr	CONSTRUCT 4 LANE ARTERIAL CONNECTOR	Exist Config: Not existing									√	
RV	L	PALM SPRINGS	3A04A22		0	0.0	0.0	SUNRISE WY	Sunrise Way (North of San Rafael Dr)	Indian Canyon Dr	CONSTRUCT/EXTEND 4 LANE ARTERIAL CONNECTOR	Exist Config: Existing road ends 0.4 mi. north of San Rafael Drive				√						
RV	L	PALM SPRINGS	3A07126		0	0.0	0.0	SUNRISE WY	Indian Canyon Dr	North Palm Canyon Drive (SR 111)	CONSTRUCT/EXTEND 4 LANE ARTERIAL CONNECTOR	Exist Config: Not existing									√	
RV	L	PALM SPRINGS	3A01CV095		0	0.0	0.0	VISTA CHINO	W. Bank of Whitewater River	E. Bank of Whitewater River	CONSTRUCT NEW BRIDGE CROSSING OVER WHITEWATER RIVER WASH	Exist Config: Low water crossing									√	
RV	L	PALM SPRINGS	3A01CV098		0	0.0	0.0	VISTA CHINO	Palm Canyon Dr	Sunrise Way	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lane arterial									√	
RV	S	PALM SPRINGS	3A07131	RIV091008	111	51.8	54.1	VISTA CHINO (Hwy 111)	Sunrise	East City Limits	WIDEN FROM 5 TO 6 LANES FROM SUNRISE TO VOLTURNO AND FROM 4 TO 6 LANES FROM VOLTURNO TO EAST CITY LIMITS (Whitewater River)	Exist Config: 4 lane arterial								√		
RV	L	PERRIS	3A04WT092		0	0.0	0.0	11TH ST / CASE RD	Perris Blvd	Goetz Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction				√						
RV	L	PERRIS	3A04A23		0	0.0	0.0	A ST	Nuevo Rd	4th St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction						√				
RV	L	PERRIS	3A07261		0	0.0	0.0	A ST	San Jacinto St	4th St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07262		0	0.0	0.0	CASE RD	Goetz Rd	I-215	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07263		0	0.0	0.0	D ST	San Jacinto St	4th St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07264		0	0.0	0.0	DUNLAP	Orange	Ellis Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A04WT093		0	0.0	0.0	ELLIS AVE	SR-74	I-215	CONSTRUCT 2 LANE ARTERIAL AND 2 LANE GRADE SEPARATION OVER BNSF RR (KEEP GRADE SEPARATION IN ARTERIAL SECTION)	Exist Config: at grade railroad corssing, 2 lane - 1 lane in each direction					√					
RV	L	PERRIS	3A01WT100		0	0.0	0.0	EVANS RD	Nuevo Rd	I-215	CONSTRUCT 4 LANE ARTERIAL	Exist Config: No facility					√					
RV	L	PERRIS	3A04WT099		0	0.0	0.0	EVANS RD	Placentia Ave	Nuevo Rd	CONSTRUCT 4 LANE ARTERIAL	Exist Config: No facility					√					
RV	L	PERRIS	3A01WT101		0	0.0	0.0	GOETZ RD	Case Rd	Ethanac Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction					√					
RV	L	PERRIS	3A04WT102		0	0.0	0.0	GOETZ RD	Lesser Ln	Ethanac Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction					√					
RV	L	PERRIS	3A07265		0	0.0	0.0	INDIAN AVE	North City Limit	Orange	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07266		0	0.0	0.0	MAPES AVE	Goetz Rd	West City Limit	CONSTRUCT 4 LANES	Exist Config: No facility									√	
RV	L	PERRIS	3A07268		0	0.0	0.0	MARKHAM ST	Wade	Redlands Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07267		0	0.0	0.0	MCPHERSON RD	Ethanac Rd	Mapes Ave	CONSTRUCT 4 LANES	Exist Config: No facility									√	
RV	L	PERRIS	3A01WT110A		0	0.0	0.0	MID-COUNTY PKWY	I-215	Rider St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	PERRIS	3A07269		0	0.0	0.0	MORGAN ST	Nevada	Indian Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07270		0	0.0	0.0	MORGAN ST	Indian Ave	Bradley Rd	CONSTRUCT 4 LANES	Exist Config: No facility									√	
RV	L	PERRIS	3A07271		0	0.0	0.0	MOUNTAIN AVE	McPherson	A St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07272		0	0.0	0.0	MURRIETA RD	Case Rd	Ethanac Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A04WT060		0	0.0	0.0	OLEANDER AVE	Western Way	Indian Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction					√					
RV	L	PERRIS	3A07273		0	0.0	0.0	ORANGE AVE	Indian Ave	Dunlap Dr	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A01WT105		0	0.0	0.0	PERRIS BL	Ramona Expwy	Nuevo Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction						√				
RV	L	PERRIS	3A01WT106		0	0.0	0.0	PERRIS BL	Nuevo Rd	11th St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	PERRIS	3A01WT107		0	0.0	0.0	PLACENTIA AVE	Indian Ave	Evans Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction						√				
RV	L	PERRIS	3A01WT108		0	0.0	0.0	RAMONA EXWY	I-215 east ramps	Perris Blvd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction								√		
RV	L	PERRIS	3A01WT109		0	0.0	0.0	RAMONA EXWY	Perris Blvd	Evans Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction								√		
RV	L	PERRIS	3A01WT110B		0	0.0	0.0	RAMONA EXWY	Evans Rd	Rider St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	PERRIS	3A07274		0	0.0	0.0	REDLANDS AVE	Oleander Ave	Placentia Ave	CONSTRUCT 4 LANES	Exist Config: No facility									√	

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CO	SYS*	LEAD AGENCY	RTP ID	RTIP ID	RTE	BEG PM	END PM	STREET	FROM	TO	DESCRIPTION	ADDITIONAL DETAILS, IF AVAILABLE	2008 RTIP	NO BUILD	NETWORK YR (PROJECT COMPLETION BY)**							
															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	PERRIS	3A07275		0	0.0	0.0	REDLANDS AVE	Placentia Ave	Ellis Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07276		0	0.0	0.0	RIDER ST	Nevada	Ramona Expwy	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07277		0	0.0	0.0	SAN JACINTO AVE	West City Limit	Navajo	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07278		0	0.0	0.0	SAN JACINTO AVE	Navajo	A St	CONSTRUCT 4 LANES	Exist Config: No facility									√	
RV	L	PERRIS	3A07279		0	0.0	0.0	SAN JACINTO AVE	A St	Redlands Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07280		0	0.0	0.0	SAN JACINTO AVE	Redlands Ave	Dunlap Dr	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07260		0	0.0	0.0	SR-74	Navajo	I-215	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07281		0	0.0	0.0	TRUMBLE RD	Mapes Ave	Ellis Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07282		0	0.0	0.0	WATSON	A St	McPherson Rd	CONSTRUCT 4 LANES	Exist Config: No facility									√	
RV	L	PERRIS	3A07283		0	0.0	0.0	WEBSTER AVE	Oleander Ave	Markham	CONSTRUCT 6 LANES	Exist Config: No facility									√	
RV	L	PERRIS	3A07284		0	0.0	0.0	WEBSTER AVE	Markham	Ramona Expwy	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	PERRIS	3A07285		0	0.0	0.0	WEBSTER AVE	Ramona Expwy	Rider St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RANCHO MIRAGE	3A07082		0	0.0	0.0	BOB HOPE DR	Gerald Ford	Dinah Shore Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction							√			
RV	L	RANCHO MIRAGE	3A07109		0	0.0	0.0	BOB HOPE DR	Dinah Shore	Ramon Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction						√				
RV	L	RANCHO MIRAGE	3A07138		0	0.0	0.0	BOB HOPE DR	Frank Sinatra Dr	Gerald Ford Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction						√				
RV	L	RANCHO MIRAGE	3A07024		0	0.0	0.0	FRANK SINATRA DR	Whitewater Rvr Br. (within FS1)		CONSTRUCT 4 LANE BRIDGE	Exist Config: 4 lanes at grade low-water crossing							√			
RV	L	RANCHO MIRAGE	3A07067		0	0.0	0.0	MONTEREY AVE	Gerald Ford Dr	Dinah Shore Dr	WIDEN SB MONTEREY AVE FROM ~~4~~ 2 TO ~~6~~ 3 LANES	~~Exist Config: 4 lanes - 2 lanes in each direction~~ Approx. 3,480 L.F. RIV011201, Monterey Ave. widening from Gerald Ford Dr. to Dinah Shore Dr., east side (NB direction), was reported completed by the City of Palm Desert through the 2008 RTIP Update.					~~√~~		√			
RV	L	RANCHO MIRAGE	3A07085		0	0.0	0.0	MONTEREY AVE	Frank Sinatra Dr	Gerald Ford Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction				√						
RV	L	RANCHO MIRAGE	3A07116	RIV091010	0	0.0	0.0	MONTEREY AVE	Clancy Lane	Country Club Dr	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction						√				
RV	L	RANCHO MIRAGE	3A07128	RIV091010	0	0.0	0.0	MONTEREY AVE	Fred Waring Dr	Clancy Lane	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction						√				
RV	L	RIVERSIDE COUNTY	3A01WT123		0	0.0	0.0	ALESSANDRO BL	Trautwein Rd	I-215	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT124		0	0.0	0.0	ARCHIBALD AVE	San Bernardino County Line	River Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT125		0	0.0	0.0	ARMSTRONG RD	San Bernardino County Line	Valley Way	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07172		0	0.0	0.0	AVE 48	Van Buren St to W	W of Hwy 86	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07173		0	0.0	0.0	AVE 52	Jackson St	Calhoun St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07174		0	0.0	0.0	AVE 52	Calhoun St	Fredrick St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07175		0	0.0	0.0	AVE 56 / AIRPORT BL	Monroe St	Jackson St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07176		0	0.0	0.0	AVE 56 / AIRPORT BL	Jackson St	0.25 miles W of Van Buren St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07177		0	0.0	0.0	AVE 56 / AIRPORT BL	Harrison St	Tyler St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07178		0	0.0	0.0	AVE 56 / AIRPORT BL	Tyler St	Polk St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07179		0	0.0	0.0	AVE 56 / AIRPORT BL	Polk St	Hwy 111	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction							√			
RV	L	RIVERSIDE COUNTY	3A07180		0	0.0	0.0	AVE 56 / AIRPORT BL	Grade Separation over Hwy 111 and SPRR	Btwn Palm St and east side of Coachella Storm Chnl	WIDEN FROM 2 TO 6 LANES INCLUDING GRADE SEPARATION OVER UPRR	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07181		0	0.0	0.0	AVE 56 / AIRPORT BL	0.25 mi. W of Van Buren St	Harrison St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07182		0	0.0	0.0	AVE 56 / AIRPORT BL	SPRR to E side of Br. at Coachella Vlly Storm Chnl		WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07183		0	0.0	0.0	AVE 56 / AIRPORT BL	Ave 56 SR-86S IC	Btwn Desert Cactus Dr and 57th Ave	WIDEN FROM 0 TO 6 LANES (3 LANE (1 EA DIR + MEDIAN LN) IC IN RTIP IN RIV060101)	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A07184		0	0.0	0.0	AVE 58	Monroe St	Jackson St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07185		0	0.0	0.0	AVE 58	Jackson St	Van Buren St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07186		0	0.0	0.0	AVE 62	Ave 62 SR-86S IC	btwn w/o SR111 to Buchanan St	WIDEN FROM 0 TO 6 LANES	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A07187		0	0.0	0.0	AVE 62	Monroe St	Jackson St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07188		0	0.0	0.0	AVE 62	Jackson St	Van Buren St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07189		0	0.0	0.0	AVE 62	Van Buren St	Harrison St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07190		0	0.0	0.0	AVE 62	Harrison St	Tyler St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07191		0	0.0	0.0	AVE 62	Tyler St	Polk St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07192		0	0.0	0.0	AVE 62	Polk St	Fillmore St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07193		0	0.0	0.0	AVE 62	Fillmore St	Pierce St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07194		0	0.0	0.0	AVE 62	Pierce St	SR86S	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07195		0	0.0	0.0	AVE 66	Ave 66 SR-86S IC	btwn w/o Buchanan St and e/o SR86S	WIDEN FROM 0 TO 6 LANES	Exist Config: at grade crossing									√	
RV	L	RIVERSIDE COUNTY	3A07196		0	0.0	0.0	AVE 66	Ave 66 Br./Low Water Xing	btwn w/o Coachella Valley Storm Water Chnl and Perce St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction low water crossing									√	
RV	L	RIVERSIDE COUNTY	3A04WT126		0	0.0	0.0	BAXTER RD	I-15	Central St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT127		0	0.0	0.0	BELLGRAVE AVE	Cantu-Galleano Ranch Rd	Van Buren Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT128		0	0.0	0.0	BENTON RD	SR-79	Eastern Bypass	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07197		0	0.0	0.0	BOB HOPE DR	Dinah Shore	Ramon Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction							√			

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	RIVERSIDE COUNTY	3A07198		0	0.0	0.0	BOB HOPE DR	Ramon Rd	I-10	WIDEN FROM 0 TO 6 LANES	Exist Config: New facility (New IC in 45600 in RTIP)						√				
RV	L	RIVERSIDE COUNTY	3A04WT129		0	0.0	0.0	BRIGGS RD	SR-74 (Pinacate Rd)	Simpson Rd	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A04WT130		0	0.0	0.0	BRIGGS RD	Simpson Rd	Newport Rd	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A04WT131		0	0.0	0.0	BRIGGS RD	Newport Rd	Scott Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT132		0	0.0	0.0	BRIGGS RD	Scott Rd	SR-79 (Winchester Rd)	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A01WT133		0	0.0	0.0	BUNDY CANYON RD	I-15	Murrieta Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction					√					
RV	L	RIVERSIDE COUNTY	3A01WT134		0	0.0	0.0	BUNDY CANYON RD	Mission Trail	I-15	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT135		0	0.0	0.0	BUTTERFIELD STAGE RD	Rancho California Rd	SR-79 (Constance)	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	RIVERSIDE COUNTY	3A01WT136		0	0.0	0.0	BUTTERFIELD STAGE RD+ POURROY RD	Murrieta Hot Springs Rd	SR-79 (Winchester)	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility								√		
RV	L	RIVERSIDE COUNTY	3A04WT137A	RIV090903	0	0.0	0.0	CAJALCO RD	Temsecal Canyon Rd	La Sierra Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	RIVERSIDE COUNTY	3A04WT137B	RIV090903	0	0.0	0.0	CAJALCO RD	La Sierra Ave	El Sobrante Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	RIVERSIDE COUNTY	3A04WT138A	RIV090903	0	0.0	0.0	CAJALCO RD	El Sobrante Rd	Wood Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	RIVERSIDE COUNTY	3A04WT138B	RIV090906	0	0.0	0.0	CAJALCO RD	Wood Rd	Alexander St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	RIVERSIDE COUNTY	3A04WT138C	RIV090907	0	0.0	0.0	CAJALCO RD	Alexander St	I-215	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	RIVERSIDE COUNTY	3A04WT139	RIV100103	0	0.0	0.0	PIGEON PASS RD	Mt. Vernon Ave	Hidden Springs Rd.	CONSTRUCT A NEW 4-LANE FACILITY	Including signals and medians								√		
RV	L	RIVERSIDE COUNTY	3A04WT140		0	0.0	0.0	CANTU-GALLEANO RANCH RD (AKA GALENA ST)	Wineville Rd	Bellgrave Ave	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility								√		
RV	L	RIVERSIDE COUNTY	3A04WT141		0	0.0	0.0	CENTER ST	Mt Vernon Ave	Reche Canyon Rd	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A04WT142		0	0.0	0.0	CENTRAL ST	Baxter Rd	Palomar St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT143		0	0.0	0.0	CENTRAL ST	Grand Ave	Palomar St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07199		0	0.0	0.0	CHASE SCHOOL RD	I-10	Ramon Rd	WIDEN FROM 0 TO 4 LANES	Exist Config: New facility								√		
RV	L	RIVERSIDE COUNTY	3A04WT144		0	0.0	0.0	CHERRY VALLEY BL	Desert Lawn Dr	Noble St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT145		0	0.0	0.0	CHERRY VALLEY BL	Noble St	Highland Springs Ave	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A04WT146		0	0.0	0.0	CLINTON KEITH RD	Meadowlark Ln	SR-79	CONSTRUCT 6 LANE ARTERIAL	Exist Config: New facility								√		
RV	L	RIVERSIDE COUNTY	RIV011236	RIV011236	0	0.0	0.0	CLINTON KEITH RD	ANTELOPE ROAD	WINCHESTER ROAD	IN RIV COUNTY & MURRIETA - EXTEND/CONSTRUCT CLINTON KEITH ROAD (6 LANES TOTAL - APPROX 3.4 MILES) WITH 2 BRIDGES FROM ANTELOPE ROAD TO WINCHESTER ROAD (SR79)	CONSTRUCT 6 LANES TOADL	√	√					√			
RV	L	RIVERSIDE COUNTY	3A04WT147		0	0.0	0.0	CLOVERDALE RD	Archibald Ave	Hamner Ave	WIDEN FROM 2 TO 4 LANES										√	
RV	L	RIVERSIDE COUNTY	3A07200		0	0.0	0.0	COUNTRY CLUB DR	Monterey Ave	Portola Ave	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07201		0	0.0	0.0	DA VALL RD	McCallum Way	Ave 30	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07202		0	0.0	0.0	DA VALL RD	Ave 30	I-10	CONSTRUCT NEW 4-LANE ROAD	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A07203		0	0.0	0.0	DA VALL RD	I-10	Varner Rd	CONSTRUCT NEW 4-LANE ROAD	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A07204		0	0.0	0.0	DILLON RD	Intersection of Dillon Rd & Indian Ave		WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07205		0	0.0	0.0	DILLON RD	Indian Ave	Palm Dr	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07206		0	0.0	0.0	DILLON RD	Intersection of Dillon Rd & Palm Dr		WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07207		0	0.0	0.0	DILLON RD	Palm Dr	Mountain View	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07212		0	0.0	0.0	DILLON RD	Br. at Whitewater Chnl		WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07213		0	0.0	0.0	DILLON RD	Whitewater Br.	Hwy 111	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT148		0	0.0	0.0	DOMENIGONI PKWY	SR-79 (Winchester Rd)	Warren Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT149		0	0.0	0.0	EL CERRITO RD	I-15	Ontario Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT150		0	0.0	0.0	ELLIS AVE	Post Rd	SR-74	WIDEN FROM 2 TO 4 LANES	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A01WT151		0	0.0	0.0	ETHANAC RD	SR-74	Keystone Dr	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A01WT152		0	0.0	0.0	ETHANAC RD	Sherman Rd	Matthews Rd	WIDEN FROM 2 TO 4 LANES INCL. GRADE SEPARATION OVER BNSF RR (GRADE SEP PORTION IS NOT PART OF GRADE SEP LIST AND SHOULD REMAIN HERE)	Exist Config: 2 lanes - 1 in each direction and at grade RR crossing									√	
RV	L	RIVERSIDE COUNTY	3A07217		0	0.0	0.0	FRED WARING DR	Washington St	Dune Palms Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction							√			
RV	L	RIVERSIDE COUNTY	3A07218		0	0.0	0.0	FRED WARING DR	Dune Palms Rd	Jefferson St	WIDEN FROM 3 TO 6 LANES	Exist Config:			√							
RV	L	RIVERSIDE COUNTY	3A04A31		0	0.0	0.0	GARBANI RD	I-215	Menifee Rd	RECONSTRUCT AND WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04A32		0	0.0	0.0	GARBANI RD	Bradley Rd	I-215	CONSTRUCT 4-LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A01WT153	RIV080909	0	0.0	0.0	GILMAN SPRINGS RD	Alessandro Blvd	Bridge St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction							√			
RV	L	RIVERSIDE COUNTY	3A01WT154		0	0.0	0.0	GILMAN SPRINGS RD	Bridge St	Sanderson Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT155		0	0.0	0.0	GOETZ RD	Newport Rd	Juanita Dr	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT156		0	0.0	0.0	GOETZ RD	Juanita Dr	Lesser Ln	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT157		0	0.0	0.0	GRAND AVE	Ortega Hwy (SR-74)	Central St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT158		0	0.0	0.0	HAMNER AVE	Mission Blvd	Bellegrave Ave	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT159		0	0.0	0.0	HAMNER AVE	Bellegrave Ave	Santa Ana River	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT160		0	0.0	0.0	HARLEY JOHN RD	Washington St	Cajalco Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT161		0	0.0	0.0	HORSETHIEF CANYON RD	Temescal Canyon Rd	I-15	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07219		0	0.0	0.0	INDIAN AVE	Dillon Rd	14th Ave	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07220		0	0.0	0.0	INDIAN AVE	14th Ave	Pierson Blvd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		

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CO	SYS*	LEAD AGENCY	RTP ID	RTIP ID	RTE	BEG PM	END PM	STREET	FROM	TO	DESCRIPTION	ADDITIONAL DETAILS, IF AVAILABLE	2008 RTIP	NO BUILD	NETWORK YR (PROJECT COMPLETION BY)**							
															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	RIVERSIDE COUNTY	3A07221		0	0.0	0.0	INDIAN AVE	Intersection of Indian Ave & 20th Ave		WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction						√				
RV	L	RIVERSIDE COUNTY	3A07222		0	0.0	0.0	INDIAN AVE	20th Ave	19th Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction						√				
RV	L	RIVERSIDE COUNTY	3A07223		0	0.0	0.0	INDIAN AVE	19th Ave	Dillon Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction							√			
RV	L	RIVERSIDE COUNTY	3A04WT162		0	0.0	0.0	INDIAN TRUCK TRAIL	Temescal Canyon Rd	I-15	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07224		0	0.0	0.0	JACKSON ST	Ave 50	Ave 52	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	RIV010211	RIV010211	0	0.0	0.0	JEFFERSON AVE	HWY111	INDIO	ON JEFFERSON AV BETWEEN HWY 111 AND INDIO, WIDEN JEFFERSON FROM 2 TO 6 LANES AND CONSTRUCT NEW BRIDGE ACROSS WHITEWATER RIVER (CURRENTLY AT GRADE LOW WATER CROSSING)	WIDEN JEFFERSON FROM 2 TO 6 LANES	√	√	√							
RV	L	RIVERSIDE COUNTY	3A01WT163		0	0.0	0.0	LIMONITE AVE	Etiwanda Ave	Van Buren Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	RIVERSIDE COUNTY	3A01WT164		0	0.0	0.0	LIMONITE AVE	Van Buren Blvd	Clay St	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07016		0	0.0	0.0	LIMONITE AVE	Hamner Ave	Etiwanda Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	RIVERSIDE COUNTY	RIV011206	RIV011206	0	0.0	0.0	LIMONITE AVE	HAMNER AVENUE	ETIWANDA AVENUE	IN NORTH WESTERN RIVERSIDE COUNTY - WIDEN AND RECONSTRUCT LIMONITE AVE FROM 2 TO 4 LANES FROM HAMNER AVE TO ETIWANDA AVE (APPROX. 8,650 FEET)	WIDEN FROM 2 TO 4 LANES	√	√	√							
RV	L	RIVERSIDE COUNTY	3A07225		0	0.0	0.0	MADISON ST	Miles Ave	Fred Waring Dr	CONSTRUCT NEW 4-LANE ROAD	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A04WT165		0	0.0	0.0	MARKET ST	Rubidoux Blvd	Santa Ana River	WIDEN FROM 2 TO 4 LANES INCL. BRIDGE OVER SANTA ANA RIVER	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT166		0	0.0	0.0	MCCALL BL	I-215	Aspel Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT167		0	0.0	0.0	MCCALL BL	Aspel Rd	Menifee Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT168		0	0.0	0.0	MCCALL BL	Menifee Rd	SR-79 (Winchester)	CONSTRUCT 2 LANE ARTERIAL INCL. GRADE SEPARATION OVER BNSF RR (GRADE SEP PORTION IS NOT PART OF GRADE SEP LIST AND SHOULD REMAIN HERE)	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A04WT169		0	0.0	0.0	MCCALL BL	SR-79 (Winchester Rd)	Warren Rd	CONSTRUCT 2 LANE ARTERIAL INCL. GRADE SEPARATION OVER BNSF RR (GRADE SEP PORTION IS NOT PART OF GRADE SEP LIST AND SHOULD REMAIN HERE)	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A01WT170		0	0.0	0.0	MENIFEE RD	Ramona Expwy	SR-74 (Pinacate Rd)	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT171		0	0.0	0.0	MENIFEE RD	SR-74 (Pinacate Rd)	Simpson Rd	WIDEN FROM 2 TO 4 LANES INCL. GRADE SEPARATION OVER RR (GRADE SEP PORTION IS NOT PART OF GRADE SEP LIST AND SHOULD REMAIN HERE)	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT172		0	0.0	0.0	MENIFEE RD	Simpson Rd	Aldergate Dr	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A07013		0	0.0	0.0	MID-COUNTY PKWY	Rider St	Warren Rd	CONSTRUCT 2 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	RIV010221	RIV010221	0	0.0	0.0	MILES AVE	COACHELLA VALLEY STORMWATER CHANNEL	CLINTON	ON MILES AV FROM COACHELLA VALLEY STORMWATER CHNL TO CLINTON CONSTRUCT 4-LN BRIDGE OVER CHANNEL/WIDEN RD 2 TO 4 LNS AND ON CLINTON FROM MILES AV TO FRED WARING, WIDEN 3 TO 4 LNS	CONSTRUCT 4 LANE BRIDGE OVER CHANNEL	√	√				√				
RV	L	RIVERSIDE COUNTY	3A07226		0	0.0	0.0	MISSION LAKES BL	Indian Ave	Little Morongo Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07227		0	0.0	0.0	MISSION LAKES BL	Little Morongo Rd	Palm Dr	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07228		0	0.0	0.0	MONTEREY AVE	I-10	Ramon Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07230		0	0.0	0.0	MOUNTAIN VIEW RD	Dillon Rd	20th Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07231		0	0.0	0.0	MOUNTAIN VIEW RD	20th Ave	Varner Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07232		0	0.0	0.0	MOUNTAIN VIEW RD	Hacienda Ave	Dillon Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT173		0	0.0	0.0	MURRIETA HOT SPRINGS RD	Pourroy Rd	SR-79 (Eastern Bypass)	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A04WT175		0	0.0	0.0	MURRIETA RD	Ethanac Rd	McCall Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT176		0	0.0	0.0	NEWPORT RD	Goetz Rd	Murrieta Rd	CONSTRUCT 6 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A04WT177		0	0.0	0.0	NEWPORT RD	Murrieta Rd	I-215	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT178		0	0.0	0.0	NEWPORT RD	I-215	Menifee Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction									√	
RV	L	RIVERSIDE COUNTY	RIV010218	RIV010218	0	0.0	0.0	NEWPORT RD	BRIGGS ROAD	WINCHESTER ROAD	IN RIV COUNTY ON NEWPORT RD - CONSTRUCTION OF 6 LANE RD FROM BRIGGS RD TO WINCHESTER RD (GAP CLOSURE) AND REALIGNMENT & WIDENING FROM 2 TO 6 LANES FROM MENIFEE RD TO BRIGGS RD	GAP CLOSURE CONSTRUCTION OF A 6 LANE ROAD	√	√	√							
RV	L	RIVERSIDE COUNTY	3A04WT179		0	0.0	0.0	NUEVO RD	Dunlap Dr	Menifee Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT180		0	0.0	0.0	PALOMAR ST	Mission Trail	Clinton Keith Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT181		0	0.0	0.0	PALOMAR ST	Clinton Keith Rd	Jefferson Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04A33		0	0.0	0.0	PHILADELPHIA ST	Wineville Rd	Etiwanda Ave	WIDEN FROM 1 EB EXISTING TO 2 LANES	Exist Config: 1 EB lane									√	
RV	L	RIVERSIDE COUNTY	3A04A34		0	0.0	0.0	PHILADELPHIA ST	Milliken Ave	I-15	WIDEN FROM 1 EB EXISTING TO 2 LANES	Exist Config: 1 EB lane									√	
RV	L	RIVERSIDE COUNTY	3A07233		0	0.0	0.0	PIERSON BL	SR-62	Indian Ave	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07234		0	0.0	0.0	PIERSON BL	Indian Ave	Little Morongo Rd	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07235		0	0.0	0.0	RAMON RD	Intersection of Ramon Rd & Varner Rd		WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction							√			
RV	L	RIVERSIDE COUNTY	3A07238		0	0.0	0.0	RAMON RD	Monterey Ave	Thousand Palms Cyn Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A01WT182		0	0.0	0.0	RAMONA EXWY	Rider St	Pico Ave	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT183		0	0.0	0.0	RAMONA EXWY	Pico Ave	Bridge St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	

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CO	SYS*	LEAD AGENCY	RTP ID	RTIP ID	RTE	BEG PM	END PM	STREET	FROM	TO	DESCRIPTION	ADDITIONAL DETAILS, IF AVAILABLE	2008 RTIP	NO BUILD	NETWORK YR (PROJECT COMPLETION BY)**							
															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	RIVERSIDE COUNTY	3A01WT206		0	0.0	0.0	RAMONA EXWY	Bridge St	Warren Rd	WIDEN FROM 2 TO 6 LANES (NOTE: RTIP#RIV011230 WIDENS PORTIONS TO 4 LANES)	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT184		0	0.0	0.0	RECHE CANYON RD	San Bernardino Co Line	Reche Vista Dr	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	RIV041043	RIV041043	0	0.0	0.0	RECHE VISTA DR RECHE CANYON ROD	HEACOCK ST/PERRIS BLVD RECHE VISTA	RECHE CYN RD Barton/Hunts	WIDEN RECHE VISTA DR 2 TO 4 LNS (HEACOCK ST/PERRIS BLVD-RECHE CYN RD); WIDEN RECHE CYN RD 2 TO 4 LNS (RECHE VISTA-BARTON/HUNTS) PLUS REALIGN, SIGNALS, MEDIANS (PA&ED/PRE-DESIGN)	WIDEN FROM 2 TO 4 LANES	√							√		
RV	L	RIVERSIDE COUNTY	RIV62015	RIV62015	0	0.0	0.0	RIVER ROAD	OVER SANTA ANA RIVER .27 mile N/O Bluff St	1,000 before & after the bridge	IN NORTHWESTERN RIVERSIDE COUNTY AT RIVER ROAD BRIDGE OVER SANTA ANA RIVER (0.27 MILE N/O BLUFF ST) - REPLACE EXISTING 2 LANE BRIDGE WITH A 4 LANE BRIDGE (HBRR#: 56C0017)	WIDEN FROM 2 TO 4 LANES	√	√				√				
RV	L	RIVERSIDE COUNTY	3A04A35		0	0.0	0.0	RIVERSIDE DR	Hamner Ave	Etiwanda Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04A36		0	0.0	0.0	RIVERSIDE DR AT DAY CREEK	Wineville Rd	Etiwanda Ave	WIDEN BRIDGE FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A01WT185		0	0.0	0.0	SANDERSON AVE (SR-79)	Gillman Springs Rd (at SR-79)	Ramona Expwy	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT186		0	0.0	0.0	SCHLEISMAN RD	San Bernardino County Line	Harrison Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT187		0	0.0	0.0	SCHLEISMAN RD	Harrison Ave	Cleveland Ave	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A04WT188		0	0.0	0.0	SCHLEISMAN RD	Cleveland Ave	68th St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT189		0	0.0	0.0	SCHLEISMAN RD	68th St	I-15	CONSTRUCT 6 LANE ARTERIAL	Exist Config: New facility								√		
RV	L	RIVERSIDE COUNTY	3A07014		0	0.0	0.0	SCHLEISMAN RD	I-15	Arlington Ave	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A01WT207		0	0.0	0.0	SCOTT RD	Murrieta Rd	I-215	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction					√					
RV	L	RIVERSIDE COUNTY	RIV010205A	RIV010205A	0	0.0	0.0	SCOTT RD	I-215	EL CENTRO	IN RIVERSIDE COUNTY NEAR MURRIETA RECONSTRUCT AND WIDEN SCOTT ROAD FROM 2 TO 4 LANES BETWEEN I-215 AND EL CENTRO	WIDEN FROM 2 TO 4 LANES	√	√	√							
RV	L	RIVERSIDE COUNTY	RIV010205B		0	0.0	0.0	SCOTT RD	I-215	EL CENTRO	IN RIVERSIDE COUNTY WIDEN SCOTT ROAD FROM 4 TO 6 LANES BETWEEN I-215 AND EL CENTRO	WIDEN FROM 4 TO 6 LANES									√	
RV	L	RIVERSIDE COUNTY	RIV010205C		0	0.0	0.0	SCOTT RD	I-215	SR79 (WINCHESTER ROAD)	IN RIVERSIDE COUNTY NEAR MURRIETA RECONSTRUCT AND WIDEN SCOTT ROAD FROM 2 TO 6 LANES BETWEEN EL CENTRO AND SR79 (WINCHESTER ROAD)	WIDEN FROM 2 TO 6 LANES									√	
RV	L	RIVERSIDE COUNTY	3A04WT191		0	0.0	0.0	SR-74	I-15	Ethanac Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction								√		
RV	L	RIVERSIDE COUNTY	3A04WT190		0	0.0	0.0	SR-74 (ETHANAC)	Matthews Rd	SR-79 (Winchester)	WIDEN FROM 2 TO 4 LANES (MATTHEWS TO BRIGGS). WIDDEN FROM 4 TO 6 LANES(BRIGGS TO SR-79).	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A01WT196		0	0.0	0.0	SR-79 (EASTERN BYPASS)	SR79 (Winchester Rd near Scott Rd)	I-15	CONSTRUCT 4 LANE ARTERIAL	Exist Config: New facility								√		
RV	L	RIVERSIDE COUNTY	3A01WT192		0	0.0	0.0	SR-79 (GILMAN SPRINGS)	Sanderson Ave	State St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07008		0	0.0	0.0	SR-79 (WINCHESTER RD)	Domenigoni Pkwy	Hunter Rd	WIDEN FROM 2 TO 6 LANES (DOMENIGONI TO LA ALBA). WIDEN FROM 4 TO 6 LANES (LA ALBA TO HUNTER).	Exist Config: 2 lanes (2 to 4 lane widening in RTIP in 46460 - Thompson to Domenigoni)									√	
RV	L	RIVERSIDE COUNTY	3A04WT197		0	0.0	0.0	TEMESCAL CANYON RD	Ontario Ave	Indian Truck Trail	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A04WT198		0	0.0	0.0	TEMESCAL CANYON RD	Indian Truck Trail	Lake St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07240		0	0.0	0.0	TWO BUNCH PALMS TR	Indian Ave	Little Morongo Rd	WIDEN FROM 0 TO 6 LANES	Exist Config: New facility									√	
RV	L	RIVERSIDE COUNTY	3A04WT224		0	0.0	0.0	VALLEY WY	Armstrong Rd	Mission Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	RIV010219	RIV010219	0	0.0	0.0	VALLEY WY / ARMSTRONG RD	SR-60	SIERRA AVENUE	VALLEY WAY/ARMSTRONG ROAD RECONSTRUCTION AND WIDENING FROM 2 TO 4 LANES FROM SR60 TO SIERRA AVE IN NORTHWESTERN RIVERSIDE COUNTY	WIDEN FROM 2 TO 4 LANES	√	√	√							
RV	L	RIVERSIDE COUNTY	3A01WT199		0	0.0	0.0	VAN BUREN BL	Mockingbird Canyon Rd	Wood Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction								√		
RV	L	RIVERSIDE COUNTY	3A01WT201		0	0.0	0.0	VAN BUREN BL	SR-60	Santa Ana River	WIDEN FROM 4 TO 6 LANES (NOTE: OVERLAPS RTIP#RIV011208)	Exist Config: 4 lanes - 2 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07007		0	0.0	0.0	VAN BUREN BL	Orange Terrace Pkwy	I-215	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07241		0	0.0	0.0	VAN BUREN ST	Ave 50	Ave 52	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07242		0	0.0	0.0	VAN BUREN ST	Ave 52	Ave 54	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07243		0	0.0	0.0	VAN BUREN ST	Ave 54	Ave 56/Airport	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE COUNTY	3A07244		0	0.0	0.0	VAN BUREN ST	Indio Blvd	Ave 48	WIDEN FROM 3 TO 6 LANES	Exist Config:								√		
RV	L	RIVERSIDE COUNTY	3A07249		0	0.0	0.0	VARNER RD	Palm Dr	Mountain View Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07250		0	0.0	0.0	VARNER RD	Mountain View Rd	Date Palm Dr	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07251		0	0.0	0.0	VARNER RD	Date Palm Dr	Ramon Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07252		0	0.0	0.0	VARNER RD	Washington St	Adams St	WIDEN FROM 3 TO 4 LANES	Exist Config:									√	
RV	L	RIVERSIDE COUNTY	3A04WT202		0	0.0	0.0	WASHINGTON ST	Hermosa Dr	Harley John Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	
RV	L	RIVERSIDE COUNTY	3A07253		0	0.0	0.0	WASHINGTON ST	I-10	Ave 38	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction								√		
RV	L	RIVERSIDE COUNTY	3A04WT203		0	0.0	0.0	WOOD RD	Krameria Ave	Cajalco Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction									√	

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	RIVERSIDE COUNTY / RCTC	3A07003		0	0.0	0.0	MID-COUNTY PKWY	I-15	I-215	CONSTRUCT 4 LANE ARTERIAL (I-15 TO HARLEY JOHN). CONSTRUCT 2 LANE ARTERIAL (HARLEY JOHN TO I-215).	Exist Config: New facility									√	
RV	L	RIVERSIDE, CITY OF	3A01WT112		0	0.0	0.0	ARLINGTON AVE	Magnolia Ave	Alessandro Blvd	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction								√		
RV	L	RIVERSIDE, CITY OF	3A07107		0	0.0	0.0	CANYON CREST DR	Country Club	Century	WIDEN 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction					√					
RV	L	RIVERSIDE, CITY OF	3A01WT114		0	0.0	0.0	CENTRAL AVE	Magnolia Ave	SR91	WIDEN FROM 4 TO 6 LANES BTWN SR-91 AND MAGNOLIA	Exist Config: 4 lanes - 2 lanes in each direction								√		
RV	L	RIVERSIDE, CITY OF	3A04WT115		0	0.0	0.0	IOWA AVE	Center St	3rd St	WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes - 2 lanes in each direction								√		
RV	L	RIVERSIDE, CITY OF	RIV990703	RIV990703	0	0.0	0.0	MOUNTAIN VIEW AVE	NEAR JURUPA AVE		IN RIVERSIDE AT JURUPA AVE AND UP RR - CONSTRUCT UNDERPASS AND CLOSE DOWN MOUNTAIN VIEW AVE AT UPRR TRACKS	CLOSE DOWN MONTAIN VIEW AT UPRR TRACKS	√	√	√							
RV	L	RIVERSIDE, CITY OF	3A04WT117		0	0.0	0.0	OVERLOOK PKWY	Chateau Ridge Ln	Sandtrack Rd	CONSTRUCT NEW 4 LANE ARTERIAL	Exist Config: New facility					√					
RV	L	RIVERSIDE, CITY OF	3A04WT118		0	0.0	0.0	TYLER ST	Wells Ave	Arlington Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE, CITY OF	RIV011208	RIV011208	0	0.0	0.0	VAN BUREN BL	JACKSON STREET	SANTA ANA RIVER	IN RIVERSIDE - WIDEN VAN BUREN BLVD FROM 4 TO 6 LANES FROM JACKSON STREET TO THE SANTA ANA RIVER AND ADD DEDICATED RIGHT-TURN LANES AT MAJOR INTERSECTIONS	WIDEN FROM 4 TO 6 LANES	√	√			√					
RV	L	RIVERSIDE, CITY OF	3A07315		0	0.0	0.0	VAN BUREN BL	JACKSON STREET	GARFIELD	VAN BUREN BLVD FROM JACKSON ST TO GARFIELD, WIDEN FROM 4 TO 6 LANES	Exist Config: 4 lanes w/raised median							√			
RV	L	RIVERSIDE, CITY OF	3A04WT120		0	0.0	0.0	WASHINGTON ST	Victoria Ave	Hermosa Dr	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction								√		
RV	L	RIVERSIDE, CITY OF	3A04WT121		0	0.0	0.0	WOOD RD	John F Kennedy Dr	Van Buren	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 lane in each direction						√				
RV	L	SAN JACINTO	3A07287		0	0.0	0.0	CAWSTON AVE	Esplanade Ave	Ramona Expway	CONSTRUCT 4 LANES	Exist Config: New facility									√	
RV	L	SAN JACINTO	3A07288		0	0.0	0.0	COTTONWOOD AVE	Warren Rd	State St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	SAN JACINTO	3A04WT208		0	0.0	0.0	ESPLANADE AVE	Warren Rd	State St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction				√						
RV	L	SAN JACINTO	3A07289		0	0.0	0.0	HEWITT ST	Main St	South City Limit	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	SAN JACINTO	3A07290		0	0.0	0.0	KIRBY ST	Esplanade Ave	Cottonwood Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	SAN JACINTO	3A07291		0	0.0	0.0	PALM AVE	Esplanade Ave	Seventh St	CONSTRUCT 4 LANES	Exist Config: New facility									√	
RV	L	SAN JACINTO	3A07292		0	0.0	0.0	PALM AVE	Seventh St	Ramona Blvd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	SAN JACINTO	3A07293		0	0.0	0.0	RAMONA BL	Seventh St	San Jacinto Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	SAN JACINTO	3A01WT210		0	0.0	0.0	RAMONA EXWY	Sanderson Ave	State St	WIDEN FROM 2 TO 6 LANES	Exist Config: 2 lanes - 1 in each direction				√						
RV	L	SAN JACINTO	3A07294		0	0.0	0.0	SEVENTH ST	Warren Rd	Cawston Ave	CONSTRUCT 4 LANES	Exist Config: New facility									√	
RV	L	SAN JACINTO	3A07295		0	0.0	0.0	SEVENTH ST	Cawston Ave	Ramona Expway	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	SAN JACINTO	3A07296		0	0.0	0.0	SOBOBA RD	Chabela Dr	City Limit	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction									√	
RV	L	SAN JACINTO	3A01WT213		0	0.0	0.0	SR-79	North Ramona Blvd	7th St	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	SAN JACINTO	3A01WT214		0	0.0	0.0	STATE ST	Gillman Springs Rd	Quandt Ranch Rd	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction								√		
RV	L	SAN JACINTO	3A01WT215		0	0.0	0.0	WARREN RD	Ramona Expwy	Esplanade Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes - 1 in each direction						√				
RV	L	TEMECULA	3A07012		0	0.0	0.0	BUTTERFIELD STAGE RD	Rancho California Road	Murrieta Hot Springs Road(MHSR)	CONSTRUCT 0 TO 4 LANE ARTERIAL (APPROX. 2.913 MILES OF ROADWAY)	Exist Config: New facility						√				
RV	L	TEMECULA	3A07015		0	0.0	0.0	BUTTERFIELD STAGE RD	Rancho California Road	SR-79 South (Constance)	WIDEN FROM 2 TO 4 LANES	Exist Config: Existing - one lane each direction						√				
RV	L	TEMECULA	991206	991206	0	0.0	0.0	MURRIETA HOT SPRINGS RD BUTTERFIELD STAGE ROAD NICHOLAS HOT SPRINGS RD			BUTTERFIELD STAGE RD EXTENSIONS: --EXTEND MURRIETA HOT SPRINGS RD (4 LNS) FROM BUTTERFIELD STAGE ROAD TO SERAPHINA RD, --BUTTERFIELD STAGE ROAD (4 LNS) FROM RANCHO CALIFORNIA RD TO MURRIETA HOT SPRINGS RD, --NICHOLAS HOT SPRINGS RD (4 LNS) FROM BUTTERFIELD STAGE ROAD TO CALLE GIRASOL	EXTEND 4 LANES	√	√				√				
RV	L	TEMECULA	3A07129		0	0.0	0.0	DIAZ RD	Dendy Parkway	North City Limits	CONSTRUCT 4 LANE ARTERIAL	Exist Config: Existing - two lane (one lane in each direction) to 4 lane (two in each direction				√						
RV	L	TEMECULA	3A01WT221		0	0.0	0.0	FRENCH VALLEY (WESTERN BYPASS)	Margarita Rd	Murrieta Creek	CONSTRUCT 0 TO 6 LANE ARTERIAL	Exist Config: New facility						√				
RV	L	TEMECULA	3A01WT222B		0	0.0	0.0	FRENCH VALLEY (WESTERN BYPASS)	Rancho California Road	I-15 (Front)	CONSTRUCT 0 TO 4 LANE ARTERIAL	Exist Config: New facility						√				
RV	L	TEMECULA	3A01WT222A		0	0.0	0.0	FRENCH VALLEY (WESTERN BYPASS)	Murrieta Creek	Rancho California Rd	CONSTRUCT 0 TO 4 LANE ARTERIAL	Exist Config: New facility							√			
RV	L	TEMECULA	3A04A25		0	0.0	0.0	MAIN ST	Old Town Front St	Pujol St	CONSTRUCT 2 LANE BRIDGE ACROSS MURRIETA CREEK	Exist Config: Existing - two lane bridge to be replaced with new two lane bridge				√						
RV	L	TEMECULA	991203	991203	0	0.0	0.0	OVERLAND DR	COMMERCE CENTER DRIVE	AVENIDA ALVARADO/DIAZ ROAD INTERSECTON	EXTEND OVERLAND DRIVE (4 LANES) FROM COMMERCE CENTER DRIVE TO AVENIDA ALVARADO/DIAZ ROAD INTERSECTION INCLUDING CONSTRUCTION OF 4 LANE BRIDGE OVER MURRIETA CREEK	EXTEND OVERLAND DRIVE 4 LANES	√	√				√				
RV	L	TEMECULA	3A07035		0	0.0	0.0	OVERLAND DR	Jefferson Ave	Diaz Road	CONSTRUCT 4 LANE ROAD EXTENSION & BRIDGE CROSSING	Exist Config: New facility						√				
RV	L	TEMECULA	RIV991210	RIV991210	0	0.0	0.0	PECHANGA PKWY	SR79 TO	PECHANGA ROAD	ON PECHANGA PKWY FROM SR79 TO PECHANGA ROAD - WIDEN FROM 2 TO 6 LANES & INCLUDE CURB, GUTTER, SIDEWALK, SOUND WALL & STORM DRAIN FACILITY IMPROVEMENTS	WIDEN FROM 2 TO 6 LANES	√	√		√						
RV	L	TEMECULA	3A01WT217		0	0.0	0.0	RANCHO CALIFORNIA RD	Jefferson Ave	Margarita Rd	WIDEN FROM 4 TO 6 LANES	Exist Config: Existing - two lanes each direction									√	

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															2008	2009	2010	2012	2014	2020	2030	2035
RV	L	TEMECULA	3A01WT219		0	0.0	0.0	SR-79 (WINCHESTER RD)	Murrieta Hot Springs Rd	Jefferson Ave	RECONSTRUCT ROAD - EXISTING 6 LANES TO REMAIN 6 LANES (3 EACH DIRECTION)	Exist Config: Existing 6 lane (3 each direction)						√				
RV	L	TEMECULA	3A01WT218		0	0.0	0.0	SR-79 SOUTH (CONSTANCE)	I-15	Pechanga Rd	WIDEN FROM 6 TO 8 LANES	Exist Config: Existing 6 lane (3 each direction)					√					
RV	S		RIV060111		215	0.0	0.0	I-215 @ ETHANAC RD	I-215 ETHANAC RD IC		WIDEN ON- AND OFF-RAMPS TO PROVIDE LEFT AND RIGHT TURN POCKETS, UPGRADE TRAFFIC SIGNAL AT RAMP TERMINI TO FACILITATE ADDITIONAL LANES, AND RE-STRIPE OC TO HAVE ONE MORE LANE OF TRAFFIC.	Existing Ramp Information: NB entry ramp - 1 existing lane; NB exit - 2 existing lanes; SB entry - 1 existing lane; SB exit - 2 lanes. Proposed Ramp Improvements: NB Entry - 1 lane - no change. NB exit - one lane added at the intersection to enhance turn movements/capacity; SB entry - no change. SB exit - one lane added at the intersection to enhance turn movements/capacity. Project limits are north- and southbound off ramps @ I-215 & Ethanac; Ethanac Rd on either side of I-215 for up to 1,200 ft.							√			
RV	L	TEMECULA	RIV060113	RIV060113	0	0.0	0.0	MURRIETA CREEK BRIDGE	BEFORE MURRIETA CREEK EXISTING TERMINUS OF WESTERN BYPASS (ST)	PUJOL STREET	CONSTRUCT NEW 4 LANE BRIDGE OVER MURRIETA CREEK (PART OF WESTERN BYPASS CORRIDOR) INCLUDING APPROACHES, CURB & GUTTER, SIDEWALKS, & STORM DRAIN FACILITIES	NEW BRIDGE 2 LANES IN EACH DIRECTION	√	√				√				
RV	L	TEMECULA	RIV060114	RIV060114	0	0.0	0.0	WESTERN BYPASS CORRIDOR	SR-79 SOUTH (NEAR 1-15)	RANCHO CALIFORNIA ROAD	IN SOUTHWEST TEMECULA:DESIGN AND CONSTRUCT 4 LANE WESTERN BYPASS CORRIDOR (PHASE 1) FROM SR79 TO RANCHO CALIFORNIA RD	NEW 4 LANE ARTERIAL (2 LANES IN EACH DIRECTION)	√						√			
RV	T	HEMET	RIV990708	RIV990708	0	0.0	0.0	TRANSIT CENTER			CONSTRUCT TRANSPORTATION/ TRANSIT CENTER/PARK-N-RIDE LOT ON CORNER OF HARVARD AND LATHAM AVE, APP 100 SPACES		√	√	√							
RV	T	INDIO	R585TA	R585TA	0	0.0	0.0	INDIO INTERMODAL TRANSPORTATION CENTER			INDIO INTERMODAL TRANSPORTATION CENTER AT INTERSECTION OF INDIO & CIVIC CENTER DR. - ACQUIRE RIGHT OF WAY AND STATION CONSTRUCTION - ENGINEERING ONLY		√	√	√							
RV	T	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV011211	RIV011211	0	0.0	0.0	AT N MAIN ST / E GRAND BL			IN CORONA AT N. MAIN ST/E. GRAND BLVD - CONSTRUCT NEW 1,000 SPACE PARKING STRUCTURE AT NEW CORONA N. MAIN ST. METROLINK STATION (EA: CORSTN, PPNO: 0079D)	CONSTRUCT NEW 1,000 SPACE PARKING STRUCTURE	√	√				√				
RV	T	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV051201	RIV051201	0	0.0	0.0	ONTARIO AVE	LINCOLN AVENUE	ONTARIO AVE	IN CORONA - IMPLEMENT NEW 60 SPACE PARK-AND-RIDE LOT (VIA ANNUAL LEASE AGREEMENT) AT FAITH BIBLE CHURCH AT 1114 W. ONTARIO AVE (TCM SUBSTITUTION FOR CORONA'S 3 EXPANSION BUSES)	PNR AT 1114 W. ONTARIO AVENUE	√	√		√						
RV	T	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV520109	RIV520109	0	0.0	0.0	PERRIS VALLEY LINE	CITY OF RIVERSIDE	CITY OF PERRIS	RECONSTRUCT & UPGRADE SAN JACINTO BRANCH LINE FOR RAIL PASSENGER SERVICE (RIVERSIDE TO PERRIS) (PERRIS VALLEY LINE)		√	√				√				
RV	T	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	3CR0702		0	0.0	0.0	PERRIS VALLEY LINE	CITY OF PERRIS	CITY OF SAN JACINTO	METROLINK PERRIS VALLEY LINE COMMUTER RAIL EXTENSION FROM PERRIS TO SAN JACINTO (~16.5 MILES), STATIONS AT WINCHESTER RD (SR-79 @ ASBURY ST), HEMET AIRPORT (SANDERSON AVE @ STETSON RD), SAN JACINTO (STATE ST @ 7TH ST)	16 TOTAL TRAINS: 6 AM PEAK, 6 PM PEAK, 4 OFF-PEAK								√		
RV	T	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	3CR0703		0	0.0	0.0	PERRIS VALLEY LINE	CITY OF PERRIS	CITY OF TEMECULA	METROLINK PERRIS VALLEY LINE COMMUTER RAIL EXTENSION FROM PERRIS TO TEMECULA (~16.5 MILES), STATIONS AT NEWPORT RD (@ I-215), CLINTON KEITH RD (@ I-215), AND WINCHESTER RD (SR-79 @ I-215)	16 TOTAL TRAINS: 6 AM PEAK, 6 PM PEAK, 4 OFF-PEAK								√		
RV	T	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	3CR0701		0	0.0	0.0	METROLINK COMMUTER RAIL			METROLINK COMMUTER RAIL EXISTING LINES SERVICES EXPANSION - RIVERSIDE, 91, AND IEOC LINES	APPROX. 2015 THROUGH 2035										√
RV	T	RIVERSIDE TRANSIT AGENCY	RIV051007	RIV051007	0	0.0	0.0	MORENO VALLEY MULTIMODAL TRANSIT CENTER			NEAR MORENO VALLEY S/O ALESSANDRO BLVD BETWEEN SAN JAC BRANCH LINE & I-215: CONSTRUCT NEW MORENO VALLEY MULTI-MODAL TRANSIT CENTER AT 14211 MERIDIAN PKWY (PA&ED/PRE-DESIGN)		√	√						√		
RV	T	RIVERSIDE TRANSIT AGENCY	RIV990902	RIV990902	0	0.0	0.0	PERRIS MULTIMODAL TRANSIT FACILITY			IN WESTERN RIVERSIDE COUNTY IN THE CITY OF PERRIS - CONSTRUCT NEW MULTIMODAL TRANSIT FACILITY (BUS & RAIL) AT 4TH AND D STREETS		√	√			√					

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RV	T	RIVERSIDE TRANSIT AGENCY	3TL1507		0	0.0	0.0	ENHANCED COMMUTER LINK - EAST CORRIDOR	Western Riverside County	San Diego, Orange, and Los Angeles Counties	PROPOSED COMMUTER LINK SERVICE AT THE EASTERN SIDE OF I-215 CORRIDOR TO SAN DIEGO AND NEIGHBORING COUNTIES OF ORANGE AND LOS ANGELES THROUGH METROLINK SERVICE CONNECTIONS. THE RESIDENCE OF CALIMESA, BEAUMONT, BANNING , HEMET/SAN JACINTO WILL BE ABLE TO GO NEIGHBORING NORTHERN AND EASTERN COUNTIES WITH THE COMFORT AND CONVIENIENCE OF AN EXPRESS BUS SERVICES						√						
RV	T	RIVERSIDE TRANSIT AGENCY	3TL1607		0	0.0	0.0	ENHANCED COMMUTER LINK - WEST CORRIDOR	Western Riverside County	San Diego, Orange, and Los Angeles Counties	PROPOSED COMMUTER LINK SERVICE AT THE WESTERN SIDE OF I-15 CORRIDOR TO SAN DIEGO AND NEIGHBORING COUNTIES OF ORANGE AND LOS ANGELES THROUGH METROLINK CONNECTIONS. A PROPOSED EXPANSION AN IMPROVEMENT OF THE EXISTING COMMUTER SERVICE FROM MURRIETA/TEMECULA INCLUDING THE CITIES OF PERRIS, MORENO VALLEY, NORCO, AND CORONA						√						
RV	T	RIVERSIDE TRANSIT AGENCY	3TR04A, 3TR04B		0	0.0	0.0	BRT	MAGNOLIA CORRIDOR PHASE 1 (CITY OF RIVERSIDE)	MORENO VALLEY CORRIDOR PHASE 2 (CITY OF MORENO VALLEY)	BUS RAPID TRANSIT (BRT): 65 INTERSECTIONS RETROFITTED FOR SIGNAL PRIORITY FOR TRANSIT AND AUTOMATED TRAVEL INFORMATION AT 15 BUS STOPS									√		
RV	T	RIVERSIDE TRANSIT AGENCY	RIV080604	RIV080604	0	0.0	0.0	COMM LINK & FIXED RTE CAPACITY EXP	RTE 204, 212 & 217		RTA - PURCHASE 40 TYPE VII BUSES FOR COMM LINK & FIXED RTE CAPACITY EXP AND 10 TYPE II VANS FOR DAR SVC: 7–TYPE VII BUSES TO BE USED FOR COMM LINK RTS 212 & 217 & 3 BUSES FOR CAPACITY EXP OF COMM LINK RTE 204; 11 BUSES FOR CAPACITY EXP OF EXIST FIXED RTE; 19 REPLACEMENT BUSES (TYPE II BUSES REPLACED W/TYPE VII BUSES), FOR CAPACITY EXP OF EXIST FIXED-ROUTE SVC; AND 10 TYPE II VANS FOR DAR SVC.			√				√					
RV	T	SCRRA / RCTC	3TL1707		0	0.0	0.0	METROLINK COMMUTER RAIL	IEOC & 91 Lines		METROLINK CONSTRUCT NEW STATION AT 3360 VAN BUREN BLVD IN RVERSIDE (PARKING 550 SPACES)											√
RV	T	SCRRA	RIV011242	RIV011242	0	0.0	0.0	METROLINK ROLLING STOCK			PURCHASE EXPANSION ROLLING STOCK (2 CAB CARS AND 3 LOCOMOTIVES) FOR METROLINK IEOC AND RIVERSIDE/FULLERTON/LA LINES (EA: RIVFUL, PPNO: 0079E) THE EQUIPMENT IS NOT PROGRAMMED UNTIL 07-08 AND IT TAKES 3 YEARS TO GET EQUIPMENT. SO ASSUMING IT ARRIVES IN 2011, IT WILL ALLOW US TO ADD 1 PEAK DIRECTION RT FOR A TOTAL OF 5 PEAK PERIOD PEAK DIRECTION RTS AND ONE OFF PEAK RT FOR A TOTAL OF 4 OFF PEAK RTS ON THE IEOC BY 2015 AND 2 PEAK PERIOD RTS ON THE 91 LINE FOR A TOTAL OF 5 PEAK PERIOD PEAK DIRECTION RTS BY 2015	The equipment is not programmed until 07-08 and it takes 3 years to get equipment. So assuming it arrives in 2011, it will allow us to add 1 peak direction RT for a total of 5 peak period peak direction RTs and one off peak RT for a total of 4 off peak RTs on the IEOC by 2015 and 2 peak period RTs on the 91 Line for a total of 5 peak period peak direction RTs by 2015	√	√				√				
RV	T	SUNLINE TRANSIT AGENCY	3TC0703		0	0.0	0.0	PARK & RIDE LOTS	Coachella Valley		ACQUIRE PROPERTY AND CONSTRUCT 3 PARK AND RIDE LOTS	There are no existing Park and Ride Lots in SunLine's service area. With the new Park and Ride Lots, SunLine can implement new service routes that will attract more riders.						√				
RV	T	SUNLINE TRANSIT AGENCY	3TL504		0	0.0	0.0	BUS PURCHASES	Coachella Valley		PURCHASE 15 ADDITIONAL EXPANSION BUSES, ROUTES TBD. THEY WILL INCLUDE 60FT, 45FT, 40FT, 32FT, AND 30FT BUSES.	SunLine has not implemented any routes since 1996 and as a result of a recent comprehensive study to examine the existing service routes, it was determined that given the rapid growth in the valley, there was a need to expand bus service to areas that have grown and need transit service.					√					
RV	T	SUNLINE TRANSIT AGENCY	3TL907		0	0.0	0.0	EXPRESS/COMMUTER BUS SERVICE	Coachella Valley	Riverside	IMPLEMENT EXPRESS BUS SERVICE TO CONNECT COMMUTERS TO METROLINK SERVICE IN RIVERSIDE, AS WELL AS EXPRESS BUS SERVICE ALONG I-10. SUNLINE WILL PURCHASE DIFFERENT SIZE BUSES, INCLUDING 45FT (MCI BUSES) FOR COMMUTER SERVICE.	Commuter service to Riverside was discontinued a couple of years ago due to low ridership. Based on COA recommendations, SunLine may implement commuter depending on the need.								√		
RV	T	SUNLINE TRANSIT AGENCY	3TR04C		0	0.0	0.0	BRT	Coachella Valley		IMPLEMENT BUS RAPID SERVICE/BRT ON HIGHWAY 111 BASED ON RECOMMENDATIONS IN THE COMPREHENSIVE OPERATIONAL ANALYSIS CONDUCTED IN 2005/06. PROJECT WILL ENTAIL COMPLETING FEASIBILITY STUDY AND WORKING WITH THE LOCAL JURISDICTION ON VARIOUS ACTIVITIES PRIOR TO IMPLEMENTING PROJECT.	Currently have regular fixed route bus service, Line 111, which is the main trunck line serving the Highway 111 corridor. Route currently carries approximately 50% of ridership. All other routes serving different segments of the valley feeds into this route. SunLine's goal is to improve the frequency of the route and introduce an express or BRT service.								√		
RV	T	SUNLINE TRANSIT AGENCY	RIV010502	RIV010502	0	0.0	0.0	BUS PARKING/ MAINTENANCE FACILITY			IN COACHELLA VALLEY, PROPERTY ACQUISITION OF APPROXIMATELY 2.27 ACRES FOR BUS PARKING/MAINTENANCE FACILITY EXPANSION AND ALTERNATE FUELS INFRASTRUCTURE EXPANSION		√	√	√							

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RV	T	SUNLINE TRANSIT AGENCY	RIV071225	RIV071225	0	0.0	0.0	COACHELLA VALLEY BUS EXPANSION	EXTEND LINE 111 AND ADD A NEW LINE 15 CIRCULATIOR IN DESERT HOT SPRINGS		IN COACHELLA VALLEY - PURCHASE 15 EXPANSION BUSES (ALT-FUEL, CNG, 30-40 FT., 30-43 PASSENGER) W/LIFTS, RACKS, FARE BOXES, RADIOS & ACCESSORIES (FY 09 5307)		√			√							
RV	T	SUNLINE TRANSIT AGENCY	RIV070709	RIV070709	0	0.0	0.0	COACHELLA VALLEY BUS EXPANSION	LINE 24 AND 32		IN COACHELLA VALLEY - PURCHASE 4 EXPANSION BUSES (ALT-FUEL, 30-40 FT, 30-43 PASSENGER) W/ LIFTS, RACKS, FARE BOXES, RADIOS & ACCESSORIES		√				√					
RV	T	SUNLINE TRANSIT AGENCY	RIV071264	RIV071264	0	0.0	0.0	COACHELLA VALLEY - FRED WARING EXPRESS BUS SERVICE	INDIO TRANSFER LOCATION	TOWN CENTER WAY TRANSFER LOCATION	IN COACHELLA VALLEY - FRED WARING CORRIDOR EXPRESS SERVICE DEMONSTRATION PROJECT: PROVIDE LIMITED EXPRESS SERVICE FROM THE INDIO TRANSFER LOCATION TO THE TRANSFER LOCATION ON TOWN CENTER WAY WITH SERVICE TO COLLEGE OF THE DESERT AND LIMITED STOPS ALONG THE CORRIDOR		√							√			
RV	T	SUNLINE TRANSIT AGENCY	RIV071264	RIV071264	0	0.0	0.0	COACHELLA VALLEY - THOUSAND PALMS PARK N RIDE			IN COACHELLA VALLEY - TRANSFER HUB/LOCATION AT SUNLINE'S HEAD OFFICE IN THOUSAND PALMS: DEVELOP AND CONSTRUCT A TRANSIT HUB AND PARK AND RIDE LOT		√						√			
SB	S	ONTARIO	4M07001		10	3.0	4.0	I-10	Euclid Av		IN ONTARIO ON I-10 AT EUCLID AVENUE - WIDEN THE EXIT RAMP FROM WESTBOUND SR-60 TO EUCLID AVENUE FROM 2-3 LANES							√				
SB	S	ONTARIO	2002160	2002160	10	4.1	6.1	I-10 AT 4TH ST AND GROVE AVE	4th St / Grove Ave		I-10 AT GROVE INTERCHANGE AND GROVE AVE. CORRIDOR - RELOCATE I/10 & 4TH ST. I/C TO GROVE AVE (2 LNS ON/OFF RAMPS) AND WIDEN GROVE AVE BETWEEN I-10 TO HOLT (FROM 4 TO 6 LANES)	1.RELOCATE 4TH ST INTERCHANGE TO GROVE AVE - ADD ON & OFF RAMPS (2 LNS EA. RAMP) 2. WIDEN GROVE AVE FROM I-10 TO HOLT - WIDEN FROM 4 TO 6 LANES (3 EA. DIR).	√	√						√		
SB	S	ONTARIO	200803	200803	10	5.9	6.4	I-10 VINEYARD IC			I-10 AT VINEYARD AVE INTERCHANGE. INTERCHANGE WIDENING FROM 4-6 LANES AND WIDEN ON AND OFF RAMPS TO TWO LANES, INTERSECTION IMPROVEMENTS AND ENHANCE EXISTING LANDSCAPING		√							√		
SB	S	CALTRANS	4H01001		10	8.0	33.8	I-10	Haven	Ford St	ADD 1 HOV LANE EACH DIRECTION, WIDEN UC'S, REPLACE OC'S, REALIGN RAMPS									√		
SB	S	CALTRANS	4M07013		10	8.2	33.1	I-10	Haven	Ford St	ADD 1 AUX LANE EACH DIRECTION									√		
SB	S	CALTRANS	4M04023		10	9.9	24.5	I-10	0.1 km e/o I-15 (PM 9.9)	0.4 km e/o I-215 (PM R24.5)	INSTALL RMS, CCTV ESU; WIDEN ENTRANCE RAMPS FROM 1 TO 2 LANES AT: EB & WB AT CHERRY AVE, CITRUS AVE, CEDAR AVE, RVERSIDE AVE AND MT VERNON AVE; WB AT RANCHO AVE; EB AT 9TH ST (EA:38430)							√				
SB	S	CALTRANS	4H01010		10	9.9	0.0	I-10/I-15	South to West/West to South		HOV CONNECTOR										√	
SB	S	CALTRANS	4H01011		10	9.9	0.0	I-10/I-15	North to West/West to North		HOV CONNECTOR										√	
SB	S	SAN BERNARDINO COUNTY	35450	35450	10	11.0	12.6	I-10	AT ETIWANDA AVENUE INTERCHANGE		I-10 ETIWANDA AVENUE INTERCHANGE RECONSTRUCT INTERCHANGE FROM EXISTING R-QUADRANT FULL CLOVERLEAF TO A PARTIAL CLOVERLEAF INTERCHANGE AND REALIGN VALLEY BLVD RAMPS	RECONSTRUCT INTERCHANGE FROM EXISITNG 4-QUADRANT FULL CLOVERLEAF TO A PARTIAL CLOVERLEAF INTERCHANGE AND REALIGN VLALEY BL RAMPS	√	√	√							
SB	S	CALTRANS	49750	49750	10	12.0	19.8	I-10	0.8KM E/O ETIWANDA AVENUE	1.5 KM W/O RIVERSIDE AVENUE	IN FONTANA, FROM 0.8KM E/OF ETIWANDA AVE OVC TO 1.5 KM W/O RIVERSIDE AVE. O/C-WIDEN EXIT RAMPS AND CONSTRUCT AUX LANES ON BOTH SIDES (FROM ETIWANDA TO RIVERSIDE)	WIDEN THE EXISTING EXIT RAMPS AND CONSTRUCT AUX. LANES ON I-10 IN THE E/B AND W/B DIRECTIONS AT CHERRY, CITRUS, AND CEDAR INTERCHANGES. PROJECT LIMITS ARE FROM 0.5 MILES EAST OF THE ETIWANDA OVERCROSSING IN THE CITY OF FONTANA TO 0.9 MILES WEST OF THE RIVERSIDE AVE. O/C IN S.B. COUNTY/COLTON	√					√				
SB	S	CALTRANS	20020812	20020812	10	12.3	14.1	I-10/CHERRY IC	SLOVER	VALLEY	I-10/CHERRY AVENUE INTERCHANGE - INTERCHANGE RECONSTRUCT - REPLACE OC, WIDEN OC AND I/C FROM SLOVER TO VALLEY FROM 4-6 LANES WITH DOUBLE LEFT TURNS TO RAMPS	WIDEN FROM 4 TO 6 LANES	√						√			
SB	S	FONTANA	SBD031269	SBD031269	10	13.7	14.6	I-10	AT BEECH AVENUE		IN FONTANA AT BEECH AVENUE CONSTRUCT 4 LANE INTERCHANGE (2 LANES IN EACH DIRECTION.	CONSTRUCT 4 LANE INTERCHANGE	√						√			
SB	S	FONTANA	SBD45000	SBD45000	10	14.8	15.5	I-10	AT CITRUS AVENUE INTERCHANGE		IN FONTANA: I-10 AT CITRUS AVE IC RECONSTRUCT IC WITH 6 THRU LANES; & REPLACE BRIDGE OVERCROSSING(O/C WIDEN FROM 2-6 LNS) AND WIDEN CITRUS FROM SLOVER TO VALLEY 4-6 LNS.	RECONSTRUCT INTERCHANGE WITH 6 THRU LANES	√						√			
SB	S	FONTANA	SBD55022	SBD55022	10	15.7	15.8	CYPRESS AVE	VALLEY BLVD	SLOVER AVENU	CYPRESS AVENUE FROM VALLEY BLVD. TO SLOVER AVENUE CONSTRUCT NEW FOUR LANE BRIDGE OVERCROSSING OVER I-10 WITH TRAFFIC SIGNALS & SAFETY LIGHTING	CONSTRUCT NEW FOUR LANE BRIDGE OVERCROSSING OVER I-10	√	√			√					

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SB	S	FONTANA	34090	34090	10	16.9	17.9	I-10	ALDER AVENUE		IN FONTANA AT ALDER AVENUE CONSTRUCT INTERCHANGE. ADD 2 LANES EACH DIR	CONSTRUCT INTERCHANGE. ADD 2 LANES IN EACH DIRECTION	√							√		
SB	S	SAN BERNARDINO COUNTY	1830	1830	10	17.8	19.3	I-10	CEDAR AVE		I-10 AT CEDAR AVE. BETWEEN SLOVER AND VALLEY-RECONSTRUCT I/C-WIDEN CEDAR FROM 4-6 LANES WITH LEFT AND RIGHT TURN LANES. ADD AUX LANE ON E/B ON AND OFF RAMPS	ADD AUX LANE ON E/B ON AND OFF RAMPS	√	√					√			
SB	S	RIALTO	SBD31808	SBD31808	10	18.7	20.8	I-10	2.1 KM WEST OF RIVERSIDE AVENUE	TO 1.3 KM EAST OF RIVERSIDE AVENUE	I-10 AT RIVERISDE AVE - 2.1 KM W/O RIVERSIDE AVE TO 1.3 KM E/O RIVERSIDE AVE. MODIFY IC 4 TO 9 LNS (INCL TURN LNS) FROM SLOVER TO VALLEY & ADD AUX LANES & OPER IMPRV	MODIFY INTERCHANGE FROM 4 TO 9 LANES	√	√				√				
SB	S	SAN BERNARDINO COUNTY	SBD41339	SBD41339	10	20.1	22.0	I-10	AT PEPPER AVENUE INTERCHANGE		PEPPER AVE. AT I-10 MODIFICATION OF PEPPER AVE. INTERCHANGE WIDEN BRIDGE FROM 3-7 LANES (2 THRU, 2 TURN LANES SOUTH, 1 TURN LANE NORTH) AND ADD AUXILIARY LANES TO FREEWAY (POST MILES KILOMETERS -32.5-34.4) (T21-#499)	WB Aux lanes start at 195 feet west of centerline of Pepper and continue west for 516 feet EB Aux lanes start at 370 feet east of centerline of Pepper and continue west for 198 feet	√						√			
SB	S	CALTRANS	38420	38420	10	23.6	31.4	I-10 AND I-215	On I-10 from 0.1 km w/o I-215 (PM 23.6) to 0.9km e/o SR-38 (PM 31.4)	On I-215 from rverside County Line (PM 0.0) to Jct I-10/I-215 (PM 4.03)	ON I-10 FROM 0.1 KM W/O I-10/I-215 TO 0.2 KM W/O WABASH O/C & I-215 FROM 0.0-4.3 FROM RVSDE CO TO I-10/215 JCT. INSTALL FOC BACKBONE SYSTEM, MODIFY COMMUNIC HUB; ON SBD 10 WDN RAMPS FROM 1 TO 2 LNS & CONSTR 1 AUX LNE IN E/B & W/B LNS -- ON SBD 215 WDN RAMPS FROM 1 TO 2 LNS BETWEEN RIV CO LN & I-10/215 JUNCTION		√	√	√							
SB	S	REDLANDS	4M01032		10	23.6	34.2	I-10	Wabash Av		INTERCHANGE (PM 23.6-34.2)										√	
SB	S	CALTRANS	4H01009		10	24.2	0.0	I-10/I-215	South to East/East to South		HOV CONNECTOR										√	
SB	S	CALTRANS	OH760 & OH930	OH760 & OH930	10	25.0	29.5	I-10	WATERMAN AVE	ALABAMA ST	I-10 AUX LANES FROM WATERMAN AVE. U/C TO ALABAMA ST. O/C-CONSTRUCT MEDIAN CONCRETE BARRIER AND RESTRIPE ROADBED TO ADD AUX.LANES ON EASTBOUND AND WESTBOUND(MINOR A)	ADD AUX LANES ON EASTBOUND AND WESTBOUND (Note: Eastbound completed)	√	√			√					
SB	S	SANBAG	44810	44810	10	25.3	27.3	I-10	WATERMAN ON-RAMP	TIPPECANOE OFF-RAMP	I-10 TIPPECANOE INTERCHANGE I/C CONFIGURATION & ADD AUX LANES; HP#1366 (AUX LANE IS FOR EASTBOUND TRAFFIC FROM WATERMAN ON-RAMP TO TIPPECANOE OFF-RAMP.	INTERCHANGE CONFIGURATION AT TIPPECANOE AND ADD EASTBOUND AUX LANE: NOTE DELETE 2004 RTIP PORTION OF PROJECT THAT READ "NEW LOCAL ROAD FROM BARTON TO FWY"	√						√			
SB	S	CALTRANS	200445	200445	10	25.5	26.3	I-10	WATERMAN AVENUE INTERCHANGE	TIPPECANOE AVENUE	IN LOMA LINDA, EASTBOUND AUXILIARY LANE BETWEEN WATERMAN AVENUE INTERCHANGE & TIPPECANOE AVENUE INTERCHANGE, WIDEN EB TIPPECANOE AVE OFF RAMP FROM 1 TO 2 LANES (EA 1A4900)	EASTBOUND AUXILIARY LANE AND WIDEN EASTBOUND TIPPECANOE AVENUE OFF RAMP FROM 1 TO 2 LANES	√		√							
SB	S	REDLANDS	4M01027		10	27.5	28.5	I-10	California St		INTERCHANGE (PM 27.5-28.5)											√
SB	S	REDLANDS	4M01025		10	28.0	29.5	I-10	Alabama St		INTERCHANGE (PM 28.0-29.5)									√		
SB	S	CALTRANS	47440	47440	10	30.8	33.4	I-10	ORANGE STREET	FORD STREET	IN REDLANDS FROM ORANGE ST. TO FORD ST. - ADD ONE MIXED FLOW LANE IN EACH DIRECTION AND FULL WIDENING OF 11 BRIDGES ONE LANE IN EA DIRECTION	ADD 1 MIXED FLOW LANE IN EACH DIRECTION AND WIDEN 11 BRIDGES ONE LANE IN EACH DIRECTION.	√	√	√							
SB	S	CALTRANS	4H01003		10	33.0	0.0	I-10	Ford St.	Riverside County Line	ADD 1 HOV LANE EACH DIRECTION (PM 33.0-0.0)										√	
SB	S	CALTRANS	4M07021		10	33.0	0.0	I-10	Ford St.	Riverside County Line	ADD 1 AUX LANE EACH DIRECTION (PM33.0-0.0)										√	
SB	S	SANBAG	41920	41920	10	33.3	36.9	I-10	FROM 0.2 MILES EAST OF FORD STREET OVERCROSSING	TO LIVE OAK CANYON ROAD OFF RAMP	IN REDLANDS AND YUCAIPA, FROM 0.2 MILES EAST OF FORD ST. O/C TO LIVE OAK CANYON RD. OFFRAMP-CONSTRUCT EAST BOUND TRUCK CLIMBING LANE AND AUXILIARY LANE	CONSTRUCT EAST BOUND TRUCK CLIMBING LANE AND AUXILIARY LANE	√	√	√							
SB	S	SANBAG	200434	200434	10	33.3	36.9	I-10	FORD STREET OVERCROSSING	LIVE OAK CANYON ROAD	ON I-10 IN REDLANDS AND YUCAIPA FROM FORD ST. O/C TO LIVE OAK CANYON RD. CONSTRUCT 1 W/B MIXED-FLOW LANE	CONSTRUCT 1 WESTBOUND MIXED-FLOW LANE AND AUXILIARY LANE	√					√				
SB	S	YUCAIPA	4M1001		10	35.3	35.6	I-10	AT YUCAIPA BLVD		YUCAIPA BLVD @ I-10 FWY - IMPROVE THE WB ON-RAMP FROM 1-2 LANES AND MODIFY TRAFFIC SIGNAL							√				
SB	S	YUCAIPA	43320	43320	10	35.5	39.2	I-10	AT LIVE OAK CANYON ROAD INTERCHANGE		IN YUCAIPA @ LIVE OAK CANYON ROAD INTERCHANGE RECONFIGURE INTERCHANGE AND WIDEN LIVE OAK CANYON ROAD FROM 2 TO 6 THRU LANES (I-10/LIVE OAK CANYON)	RECONFIGURE INTERCHANGE AND WIDEN LIVE OAK CANYON ROAD FROM 2 TO 6 THRU LANES (I-10/LIVE OAK CANYON)	√	√			√					
SB	S	YUCAIPA	4M04033	201131	10	38.0	38.4	I-10	Wildwood Canyon		INTERCHANGE PM 38/38.4)									√		

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SB	S	RANCHO CUCAMONGA	200152	200152	15	4.1	5.8	I-15	200 FT NORTH OF FOOTHILL BLVD	2000 FT. SOUTH OF ARROW	I-15 AT ARROW ROUTE INTERCHANGE - ADD A SOUTHBOUND ON (LOOP) RAMP AT ARROW ROUTE (INCLUDING BRIDGE), AND NORTHBOUND OFF AND ON (LOOP) RAMPS AT ARROW ROUTE (INCLUDEING BRIDGE EXPANSION). MODIFY THE SOUTHBOUND OFF AND ON RAMPS AT FOOTHILL BLVD. INCORPORATE A SOUTHBOUND OFF AND ON RAMPS AT FOOTHILL BLVD. CONSTRUCT AN AUXILIARY LANE IN ADVANCE OF THE SOUTHBOUND OFF RAMP AT FOOTHILL BLVD. WIDEN EASTBOUND ARROW ROUTE FROM ONE TO TWO LANES EAST OF I-15.		√	√					√		
SB	S	CALTRANS	200428	200428	15	5.0	5.3	I-15	NORTHBOUND I-15 AND FOOTHILL BLVD		IN RANCHO CUCAMONGA AT N/B I-15 AND FOOTHILL BLVD. OFF RAMP- WIDEN EXISTING ONE LANE OFF RAMP TO 2 LANES AND ADD 400 METER DECELERATION LANE	WIDEN EXISTING ONE LANE OFF RAMP TO 2 LANES AND ADD 400 METER DECELERATION LANE	√	√	√							
SB	S	RANCHO CUCAMONGA	200606	200606	15	5.0	5.8	I-15	AT FOOTHILL BLVD		I-15/FOOTHILL BLVD. WIDEN SOUTHBOUND DIRECT OFF-RAMP AND CONSTRUCT DECEL LANE		√	√			√					
SB	S	CALTRANS	4M07034		15	5.1	5.8	I-15	AT FOOTHILL BLVD		WIDEN NB ON-RAMP TO 2 LANES FROM RAMP ENTRANCE TO THE METERING POINT AND TRANSITION TO 1 LANE AT GORE POINT. INSTALL RAMP METERING (EA 0H791)								√			
SB	S	RANCHO CUCAMONGA	200048	200048	15	6.3	7.1	I-15	AT BASELINE INTERCHANGE		I-15 AT BASELINE INTERCHANGE ON I-15 FROM 1,800 FT N/O BASELINE RD TO 2,400 FT S/O BASELINE RD; ON BASELINE RD FROM 1,800 FT W/O I-15 TO 1,500 FT E/O I-15	I-15 AT BASELINE INTERCHANGE - WIDEN RAMPS (INCLUDING BRIDGES), WIDEN BASELINE RD. FROM 4-6 LANES ADDING RT & LT TURN LANES AT EAST AVE, WIDEN EAST AVE. FROM 2-4 LANES ADDING RT & LT TURN LANES AT BASELINE, REALIGN AND WIDEN S/B AND N/B DIAMOND RAMPS FROM 1-2 LNS (INCLUDING BRIDGES), ADD SB LOOP ON-RAMP (INCL BRIDGES), ADD I-15 ACCEL/DECEL LANES, AND OPERATIONAL IMPROVEMENTS (EA497100)	√	√				√				
SB	S	RANCHO CUCAMONGA	200605	200605	15	6.4	7.2	I-15	Baseline		I-15/BASELINE RD. - WIDEN RAMPS TO 2 LANES AND INSTALL TRAFFIC METERING (SOUTHBOUND AND NORTHBOUND)	2 LANE RAMPS	√	√		√						
SB	S	CALTRANS	20430	20430	15	7.1	10.0	I-15	AT ROUTE 30		IN FONTANA AND RANCHO CUCAMONGA AT ROUTE 30 - NEW FREEWAY TO FREEWAY INTERCHANGE	NEW FREEWAY TO FREEWAY INTERCHANGE	√	√	√							
SB	S	FONTANA	0H1300	0H1300	15	9.8	11.9	I-15/DUNCAN CANYON OVERCROSSING	720 FEET EAST OF FWY CL	1250 FT WEST OF FWY CL	I-15/DUNCAN CANYON INTERCHANGE -- CONVERT EXIST 2 LANE OVERCROSSING TO DIAMOND INTERCHANGE, WIDEN TO 4 LANES PLUS DOUBLE LEFT TURNS TO SOUTHBOUND RAMP W/ACCELERATION AND DECELERATION LANES (1000 FT ON, 1300 FT OFF) AND SINGLE LEFT TO NORTHBOUND RAMP	WIDEN FROM 2 TO 4 LANES PLUS LEFT TURN POCKETS	√					√				
SB	S	FONTANA	4M01041		15	12.5	13.5	I-15	Sierra Av		INTERCHANGE (PM 12.5-13.5)									√		
SB	S	CALTRANS	4T01003		15	15.9	27.0	I-15	Devore	Summit	TRUCK CLIMBING LANE (PM 15.9-27.0)						√					
SB	S	CALTRANS	20061201 (Part 1 of 4)	20061201 (Part 1 of 4)	15	14.0	16.4	I-15	I-215 (Devore Interchange) (PM 16.0-17.8)		15/I-215 I/C Improvements-Devore I/C-S/O Glen Helen Prkwy to North of Kenwood & on I-215 from S/O Devore Rd.I/C to I-15 I/C(I215 PM 16.0-17.8) Add 1 mixed flow lane in each direction to existing 3 m/f lanes from 3800' S/O Glen Helen Prkwy to 3100' N/O I-215 I/C including truck bypass lanes S/O I-15/I-215 I/C N/O Kenwood I/C reconfi. of I=15/I-215 I/c, Devore Rd. I/C and Kenwood Ave I/C Reconnection of Cajon Blvd. between Devore Rd. and Kenwood Ave.	EXISTING 3 MF EACH DIR, NO NB AUX LANE, NO TRUCK BYPASS LANES **I-15 NB:** --ADD 1 MF LN FROM 3,800 FT S/O GLEN HELEN TO 1,800 FT N/O 15/215 IC. --CONSTRUCT I-15 TRUCK BYPASS 2 LNS FROM 1,800 N/O 15/215 IC TO 3,100 FT N/O KENWOOD. --CONSTRUCT AUX LN FOR NB TRUCK BYPASS FROM 3,100 FT N/O KENWOOD TO 4,700 N/O KENWOOD. --ADD 1 MF LN FROM 3,800 N/O 15/215 IC TO 600 FT S/O KENWOOD. --ADD 1 AUX LN FROM 1,700 N/O GLEN HELEN TO 1,900 FT S/O 15/215 IC. --WIDEN KENWOOD OFF-RAMP (FROM 1 TO 2 LNS) FROM 400 FT S/O KENWOOD TO RAMP TERMINI. --WIDEN KENWOOD ON-RAMP (FROM 1 TO 2 LNS) FROM KENWOOD TO 400 FT N/O INTERSECTION.	√					√				

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SB	S	CALTRANS	20061201 (Part 2 of 4)	20061201 (Part 2 of 4)	15	14.0	16.4	I-15	I-215 (Devore Interchange) (PM 16.0-17.8)		15/I-215 I/C Improvements-Devore I/C-S/O Glen Helen Prkwy to North of Kenwood & on I-215 from S/O Devore Rd.I/C to I-15 I/C(I215 PM 16.0-17.8) Add 1 mixed flow lane in each direction to existing 3 m/f lanes from 3800' S/O Glen Helen Prkwy to 3100' N/O I-215 I/C including truck bypass lanes S/O I-15/I-215 I/C N/O Kenwood I/C reconfi. of I=15/I-215 I/c, Devore Rd. I/C and Kenwood Ave I/C Reconnection of Cajon Blvd. between Devore Rd. and Kenwood Ave.	**I-15 SB:** --APPROACHING SPLIT AT I-215, RELOCATE DIVERGE PT APPROX 6,500 FT TO NORTH BY DIVIDING EXISTING 6-LN FWY SO THAT 3 LANES HEAD SOUTH TO 215 AND 3 LANES HEAD SOUTH TO 15. --ADD 1 MF (#5 LN) FROM 7,100 FT N/O KENWOOD TO 200 FT S/O KENWOOD. --ADD 1 MF (#6 LN) FROM 5,700 FT N/O KENWOOD TO 600 FT S/O KENWOOD. --ADD 1 MF (#7 LN) FROM 4,300 FT N/O KENWOOD TO 500 FT N/O KENWOOD. --CONSTRUCT TRUCK BYPASS 2 LNS FROM 500 N/O KENWOOD TO 3,400 FT S/O KENWOOD. --CONSTRUCT 1 AUX/MERGING LN FOR SB TRUCK BYPASS FROM 3,400 FT S/O KENWOOD TO 4,400 FT S/O KENWOOD. --ADD 1 MF (#4 LN) FROM 3,400 FT S/O KENWOOD TO 1,600 FT S/O GLEN HELEN. --ADD 1 AUX (#5 LN) FROM 1,900 FT S/O 15/215 IC TO 1,600 FT N/O GLEN HELEN. --RECONSTRUCT KENWOOD OFF-RAMP AND LENGTHEN FROM 2,700 N/O KENWOOD TO 1,400 N/O KENWOOD, ADD 1 LN TO OFF-RAMP FOR PASSING/TURNING, FROM 1,400 FT N/O KENWOOD TO INTERSECTION.	√						√		
SB	S	CALTRANS	20061201 (Part 3 of 4)	20061201 (Part 3 of 4)	15	14.0	16.4	I-15	I-215 (Devore Interchange) (PM 16.0-17.8)		15/I-215 I/C Improvements-Devore I/C-S/O Glen Helen Prkwy to North of Kenwood & on I-215 from S/O Devore Rd.I/C to I-15 I/C(I215 PM 16.0-17.8) Add 1 mixed flow lane in each direction to existing 3 m/f lanes from 3800' S/O Glen Helen Prkwy to 3100' N/O I-215 I/C including truck bypass lanes S/O I-15/I-215 I/C N/O Kenwood I/C reconfi. of I=15/I-215 I/c, Devore Rd. I/C and Kenwood Ave I/C Reconnection of Cajon Blvd. between Devore Rd. and Kenwood Ave.	**I-215 NB:** --ADD 1 MF LN FROM 2,400 S/O DEVORE RD TO 3,000 FT N/O 15/215 IC (FWY TO FWY CONNECTOR). --CONSTRUCT 1 TRUCK BYPASS LN FROM 1,200 FT S/O 15/215 IC TO 3,200 FT N/O 15/215 IC. --REALIGN DEVORE ON-RAMP FROM LOOP TO DIRECT ON-RAMP FROM DEVORE RD TO 2,300 N/O 15/215 IC. --WIDEN DEVORE OFF-RAMP AND ADD 1 TURN LN FROM 800 FT S/O DEVORE TO RAMP TERMINI. **I-215 SB:** --RECONFIGURE DEVORE OFF-RAMP BY INCREASING LENGTH & RELOCATING IC TO SOUTH, FROM 100 FT N/O DEVORE RD TO TERMINATE AT CAJON BLVD (1,800 FT S/O DEVORE), 2 LNS. --RELOCATE DEVORE ON-RAMP SOUTH TO CAJON (1,300 FT S/O DEVORE) TO MERGE W/215 3,300 FT S/O DEVORE, 2 LNS FOR FIRST 600 FT THEN MERGING TO 1 LN TO JOIN FWY. --ADD 1 MF (#3 LN) FROM 15/215 IC TO 3,900 FT S/O DEVORE. --ADD 1 AUX LN (#4 LN) FROM 100 FT S/O DEVORE TO 1,100 FT S/O DEVORE.	√						√		
SB	S	CALTRANS	20061201 (Part 4 of 4)	20061201 (Part 4 of 4)	15	14.0	16.4	I-15	I-215 (Devore Interchange) (PM 16.0-17.8)		15/I-215 I/C Improvements-Devore I/C-S/O Glen Helen Prkwy to North of Kenwood & on I-215 from S/O Devore Rd.I/C to I-15 I/C(I215 PM 16.0-17.8) Add 1 mixed flow lane in each direction to existing 3 m/f lanes from 3800' S/O Glen Helen Prkwy to 3100' N/O I-215 I/C including truck bypass lanes S/O I-15/I-215 I/C N/O Kenwood I/C reconfi. of I=15/I-215 I/c, Devore Rd. I/C and Kenwood Ave I/C Reconnection of Cajon Blvd. between Devore Rd. and Kenwood Ave.	**CONNECTORS:** --CONSTRUCT SLIP RAMP FROM 215 NB DEVORE RD ON-RAMP TO NB 215-SB 15 CONNECTOR AT 1,600 FT N/O DEVORE. --ADD 1 LN TO NB 215-SB 15 CONNECTOR FROM 1,600 FT N/O DEVORE TO EXTEND FOR A DISTANCE OF 1,300 FT. --REALIGN 1 LN NB 15-SB 215 CONNECTOR, NEW MERGE PT W/215 WILL BE 100 FT S/O DEVORE (REDUCTION OF 1,200 FT). --CONSTRUCT SLIP OFF-RAMP CONNECTING THE NB 15-SB 215 CONNECTOR TO 215 SB DEVORE OFF-RAMP, BEGINNING 2,100 FT N/O DEVORE AND MERGING W/215 SB OFF-RAMP 100 FT N/O DEVORE, 1 LN. **CAJON BLVD:** --CONSTRUCT 4-LN CAJON BLVD BEGINNING AT CURRENT INTERSECTION OF CAJON & DEVORE RD TO 600 FT N/O INTERSECTION, THEN 2 LNS TO INTERSECTION OF CAJON & KENWOOD. (NORTH 4,000 FT CURRENTLY EXISTS BUT IS CLOSED TO TRAFFIC; PROJECT WILL RE-OPEN FOR PUBLIC USE.)	√						√		
SB	S	CALTRANS	4M01037		15	16.0	21.7	I-15	Cajon Jn/SR-138		INTERCHANGE (PM 16.0-21.7)									√		
SB	S	CALTRANS	4H01004		15	0.0	16.0	I-15	Riverside County Line	I-215	ADD 1 HOV LANE EACH DIRECTION (PM 16.0-33.2)									√		
SB	S	CALTRANS	4H01005		15	16.0	33.2	I-15	I-215	US-395	ADD 1 HOV LANE EACH DIRECTION (PM 16.0-33.2)									√		

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SB	S	CALTRANS	44850	44850	15	21.3	28.6	I-15	CAJON PASS - NORTHBOUND FROM 0.1 KM SOUTH OF ROUTE 138	TO 0.1 KM SOUTH OF OAK HILL ROAD CONVERT RIGHT LANE TO TRUCK CLIMBING LANE	CAJON PASS, N/B FROM 0.1 KM S/O RTE 138 TO 0.1 KM S/O OAK HILL RD O/C -ADD N/B LANE TO MEDIAN & CONVERT RT. LANE TO TRUCK CLIMBING LANE		√	√	√							
SB	S	SAN BERNARDINO COUNTY	4M01040		15	28.4	29.8	I-15	Oak Hill Rd		REPLACE OVERCROSSING (R28.4-29.8)									√		
SB	S	HESPERIA	SBD031279	SBD031279	15	29.5	30.9	I-15	AT RANCHERO ROAD		IN HESPERIA AT RANCHERO ROAD CONSTRUCT 6 LANE INTERCHANGE INCLUDING AUX LANE PRIOR TO N/B OFF RAMP AND SUCCESSIVE TO S/B ON RAMP	CONSTRUCT 6 LANE INTERCHANGE AND AUX LANE	√					√				
SB	S	CALTRANS	4H01006		15	31.0	40.6	I-15	US-395	SR-18/Mojave River	ADD 1 HOV LANE EACH DIRECTION (PM31.0-40.6)									√		
SB	S	HESPERIA	SBD41288	SBD41288	15	32.3	0.0	I-15	AT JOSHUA OFFRAMP		I-15 AND JOSHUA OFFRAMP - CONSTRUCT NORTHBOUND OFFRAMP AT JOSHUA - 2 LANES	CONSTRUCT NORTHBOUND OFFRAMP - 2 LANES	√				√					
SB	S	HESPERIA	200613	200613	15	32.9	33.5	I-15	AT MUSCATEL STREET		I-15 & MUSCATEL STREET CONSTRUCT 6 LANE INTERCHANGE WITH LEFT AND RIGHT TURN LANES, INCLUDING 1700 FT AUX LANES UPSTREAM TO SB EXIT RAMP		√							√		
SB	S	CALTRANS	0172K	0172K	15	33.5	34.5	I-15	AT MAIN STREET INTERCHANGE		HESPERIA AT MAIN STREET RECONSTRUCT MAIN STREET INTERCHANGE TO PARTIAL CLOVERLEAF & WIDEN OVERCROSSING FROM 2 TO 6 LANES (T21-#883)	RECONSTRUCT MAIN STREET INTERCHANGE TO PARTIAL CLOVERLEAD & WIDEN OVERCROSSING FROM 2 TO 6 LANES	√	√	√							
SB	S	HESPERIA	SBD41446	SBD41446	15	34.9	35.9	I-15	AT EUCALYPTUS		EUCALYPTUS AT I-15 CONSTRUCT INTERCHANGE 3 LANES IN EA DIR STANDARD I/C CONFIG.	CONSTRUCT INTERCHANGE 3 LANES IN EACH DIRECTION	√							√		
SB	S	VICTORVILLE	200078	200078	15	37.6	0.0	I-15	AT BEAR VALLEY ROAD		PARK-N-RIDE LOT EXPANSION AND FACILITIES AT BEAR VALLEY RD & I-15 (70 EXISTING SPACES TO 300 SPACES)	PARK AND RIDE 300 SPACES	√	√			√					
SB	S	VICTORVILLE	34170	34170	15	38.3	39.4	I-15	AT LA MESA ROAD/NIXQUALLI ROAD		IN VICTORVILLE AT LA MESA ROAD/NISQUALLI ROAD CONSTRUCT I/C	CONSTRUCT NEW INTERCHANGE	√	√				√				
SB	S	VICTORVILLE	4M07014		15	41.0	43.0	I-15	Mojave St.		NEW INTERCHANGE (PM 41.0-43.0)									√		
SB	S	VICTORVILLE	33390	33390	15	41.7	42.4	I-15	AT ROY ROGERS INTERCHANGE		IN VICTORVILLE AT MOJAVE DR OVERCROSSING (ROY ROGERS INTERCHANGE) WIDEN BRIDGE ON NORTH SIDE (VILLAGE DR TO LA PAZ DR) FROM 2 TO 4 LANES, WIDEN RAMPS AT MOJAVE DR INTERSECTION: NB/SB ON 1 TO 2, NB/SB OFF 1 TO 3. ALL RAMPS AT CONNECTION TO FWY ARE 1 LN ONLY.	WIDEN BRIDGE ON NORTH SIDE FROM 2 TO 4 LANES	√	√		√						
SB	S	CALTRANS	35556	35556	15	41.9	46.0	I-15	MOJAVE DR	1 MILE N/O STODDARD WELLS ROAD	IN VICTORVILLE FROM MOJAVE DR TO 1 MILE N/O EXISTING STODDARD WELLS RD OVERCROSSING - RECONSTRUCT D AND E ST IC, RELOCATE STODDARD WELLS RD IC, WIDEN MOJAVE RIVER BRIDGE & VICTORVILLE SEPARATION & OVERHEAD, UPGRADE 2.7 MILES OF MAINLINE TO ROADWAY STANDARDS, REALIGN EAST FRONTAGE RD, CONSTRUCT NEW WEST FRONTAGE RD	ADD'L DETAILS: SB D ST ON-RAMP FROM 1 TO 2 LNS EACH DIR. NB D ST OFF-RAMP FROM 1 TO 2 LNS EACH DIR. REMOVE SB E ST OFF-RAMP AND SB E ST LOOP ON-RAMP. NEW WEST FRONTAGE RD 2 LNS EACH DIR FROM E ST TO STODDARD WELLS. D ST AND STODDARD WELLS RD TO 2 LNS EACH DIR BETWEEN RAMPS.	√	√						√		
SB	S	CALTRANS	35552	35552	15	42.0	70.1	I-15	MOJAVE DRIVE INTERCHANGE	ROUTE 58	NEAR BARSTOW FROM MOJAVE DR. I/C IN VICTORVILLE TO JCT. RTE 58 IN BARSTOW TO WILDWASH BRIDGE ADD S/B MIXED FLOW (WAS EA 35551)	ADD SOUTHBOUND MIXED FLOW LANE AND AUXILIARY LANE	√	√	√							
SB	S	VICTORVILLE / APPLE VALLEY	4M07010		15	44.0	0.0	I-15	High Desert Corridor		IN VICTORVILLE/APPLE VALLEY ON I-15 AT EAST/WEST HIGH DESERT CORRIDOR - CONSTRUCT INTERCHANGE (PM 15.1-35.9)									√		
SB	S	HESPERIA	SBD55026	SBD55026	15	55.0	0.0	EUCALYPTUS ST	ROUTE 15	PEACH AVENUE	EUCALYPTUS STREET FROM I-15 TO PEACH AVENUE RECONSTRUCT AND WIDEN FROM 2 TO 4 LANES AND CONSTRUCT RAILROAD CROSSING	WIDEN FROM 2 TO 4 LANES AND CONSTRUCT RAILROAD CROSSING	√					√				
SB	S	CALTRANS	35072	35072	15	69.2	74.1	I-15	FROM 0.5 MILES NOTH OF LENWOOD ROAD	TO 0.1 MILES SOUTH OF EAST MAIN STREET	IN BARSTOW 0.5 MILES N/O LENWOOD RD. TO 0.1 MILES S/O EAST MAIN ST. ADD ONE LANE N/B WIDEN FROM 2 LANES TO 3 LANES RD. OVERCROSSING TO 0.1 MILES SO OF EAST MAIN ST. OVERCROSSING	WIDEN FROM 2 TO 3 LANES	√	√	√							
SB	S	CALTRANS	4A04902		18	79.9	81.2	SR-18	0.8 mi west of Orchard Dr (PM 79.9)	2.1 mi west of Orchard Dr (PM 81.2)	CONSTRUCT PASSING LANES (PM 79.9/81.2) AND TURN LANES (PM 73.76/84.33)									√		
SB	S	APPLE VALLEY	200612	200612	18	93.0	94.7	SR-18	APPLE VALLEY ROAD	WEST TOWN LIMITS TO CORWIN ROAD	SR 18 FROM APPLE VALLEY RD. TO CORWIN RD. - WIDEN FROM 4-6 LANES (APPROX. 3 MI) AND REALIGN INTERSECTION AT APPLE VALLEY RD/SR 18	WIDEN FROM 4 TO 6 LANES	√					√				
SB	S	CALTRANS	4A01900		18	116.0	100.9	SR-18	Los Angeles County Line	US 395	WIDEN FROM 1 TO 2 LANES EACH DIR (PM 116-100.9)									√		

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SB	S	VICTORVILLE	20020144	20020144	18T	15.1	35.9	SR-18 (HIGH DESERT CORRIDOR)	1.0 MI W/O ROUTE 395	1.0 S/O ROUTE 18	HI- DESERT CORRIDOR SR-18 REALIGNMENT FROM US 395 TO SR-18/BEAR VALLEY RD. CONSTRUCT 4-6 LANE FREEWAY/EXPRESSWAY. CONSTRUCT NEW IC @I-15 W/AUX LANES NORTH AND SOUTH OF I-15. CONSTRUCT NEW I/C @US 395 WITH ADDED LANES NORTH AND SOUTH ON US-395.		√							√		
SB	S	SANBAG	SBD0194	SBD0194	30	13.1	15.1	SR-30	0.5 MILES EAST OF HEMLOCK	O.2 MILES EAST OF SIERRA AVENUE	NEAR FONTANA FROM 0.5 MI E OF HEMLOCK TO 0.2 MI E OF SIERRA AVE CONSTRUCT 6-LANE FWY & 2 HOV LANES	CONSTRUCT 6 LANE FREEWAY AND 2 HOV LANES	√	√	√							
SB	S	SAN BERNARDINO, CITY OF	4M01048		30	21.0	22.0	SR-30 (SR-210)	Highland Av		INTERCHANGE (PM T21.0-22.0)										√	
SB	S	SAN BERNARDINO, CITY OF	4M01049		30	23.5	24.5	SR-30 (SR-210)	Waterman Av		INTERCHANGE (PM R23.5-24.5)										√	
SB	S	SAN BERNARDINO, CITY OF	4M01047		30	25.0	26.0	SR-30 (SR-210)	Del Rosa Av		INTERCHANGE (PMR 25.0-26.0)										√	
SB	S	REDLANDS SPHERE	4M07016		38	3.0	5.5	MENTONE BL (SR-38)	Wabash Ave	E/Garnet St	WIDEN MENTONE BLVD (SR-38) FROM WABASH AVE TO E/GARNET ST FROM 2 TO 4 LANES (PM 3.0-5.5)	Existing Configuration: 1 lane each direction								√		
SB	S	CALTRANS	4A01382		38	5.5	8.0	SR-38 (ORANGE/LUGONIA)	Redlands City Limit (W)	Redlands City Limit (E)	WIDEN FROM 1 TO 2 LANES EACH DIR (PM 5.5-8.0)									√		
SB	S	CALTRANS	34770	34770	58	0.0	12.9	SR-58	KERN COUNTY LINE	7.5 MILES EAST OF JCT ROUTE 395	KERN CO LINE TO 7.5 MI EAST OF JCT RTE 395 - CONSTRUCT 4 LANE EXPRESS WAY ON NEW ALIGNMENT AND BUILD NEW INTERCHANGE AT SR 58/US395 (PM 5.4)	CONSTRUCT 4 LANE EXPRESSWAY ON NEW ALIGNMENT AND BUILD NEW INTERCHANGE AT SR 58/US395 (PM 5.4).	√							√		
SB	S	CALTRANS	4351	4351	58	21.8	31.0	SR-58	NEAR HINKLEY FROM 2.8 MILES WEST OF HIDDEN RIVER ROAD	0.7 MILES EAST OF LENWOOD ROAD	NEAR HINKLEY FROM 2.8 MILES WEST OF HIDDEN RIVER ROAD TO 0.7 MILES EAST OF LENWOOD ROAD -- REALIGN AND WIDEN TO 4 LANE EXPRESSWAY (2-4 LANES) AND BUILD NEW INTERCHANGES AT HINKLEY ROAD & LENWOOD ROAD. (PHASE 2)	WIDEN TO 4 LANE EXPRESSWAY (FROM 2 TO 4 LANES) AND BUILD NEW INTERCHANGES AT HINKLEY ROAD & LENWOOD ROAD.	√							√		
SB	S	CALTRANS	4M07008		60	1.5	10.0	SR-60	Ramona Ave IC (R1.5)	SB I-15 Connector (R10.0)	WIDEN AUX LANES IN EACH DIR. WIDEN CONNECTOR FROM SB I-15 TO WB SR-60 AND FROM EB SR-60 TO NB/SB I-15, WIDEN RAMPS FROM 1 TO 2 LANES (EA:OE330)									√		
SB	S	VARIOUS AGENCIES	4M04050		60	2.1	3.0	SR-60	SR-60 at Central Ave (3.8)		ADD AUX LANES AND WIDEN RAMPS, CONST ENTRANCE LOOP RAMP (EA:0C870) PM R2.1-3.0)								√			
SB	S	ONTARIO	4M07018		60	4.6	5.0	SR-60	Euclid		IN ONTARIO ON SR-60 AT EUCLID AVENUE - WIDEN OFF RAMPS FROM 2 TO 3 LANES (PM R4.6-5.0)										√	
SB	S	ONTARIO	200604	200604	60	5.1	0.0	SR-60	300 FT NORTH OF SR-60	300 FT SOUTH OF SR-60	SR60 AT GROVE AVENUE INTERCHANGE RECONSTRUCTION AND GROVE AVE. +/-300 FT. N/S OF SR 60-WIDEN FROM 4-6 LANES	WIDEN FROM 4 TO 6 LANES	√	√						√		
SB	S	CALTRANS	4PL07019		60	5.8	0.0	SR-60	SR-60 at Mountain Ave (5.8)		WIDEN RAMPS, CONST AUX LANES (EA:0C880)								√			
SB	S	ONTARIO	200602	200602	60	6.9	0.0	SR-60	AT VINEYARD AVENUE		SR 60 AND VINEYARD AVE. INTERCHANGE RECONSTRUCTION-LENGTHEN BRIDGE TO ACOMMODATE VINEYARD AVE WIDENING AND RAMP WIDENING 4-6 LANES	WIDENING BRIDGE TO ACCOMMODATE RAMP WIDENING FROM 4 TO 6 LANES	√	√						√		
SB	S	ONTARIO	4M07017		60	7.6	7.8	SR-60	Archibald		IN ONTARIO ON SR-60 AT ARCHIBALD AVENUE - WIDEN ON AND OFF RAMPS FROM 2 TO 3 LANES (PM R7.6-7.8)									√		
SB	S	CALTRANS	200851	200851	62	8.8	12.6	SR-62 (TWENTYNINE PALMS HWY)	FAIRWAY DR	CAMINO DEL CIELO	SR 62 FROM FAIRWAY TO CAMINO DEL CIELO; AND PALM TO AIRWAY WIDENING FROM 4-6 LANES, INSTALL MEDIANS, SIGNALS, SIDEWALKS, AND CURB AND GUTTER		√							√		
SB	S	CALTRANS	0G930	0G930	62	9.2	11.8	SR-62 (TWENTYNINE PALMS HWY)	APPROX. 445' W/O CAMINO DEL CIELO	TROJAN LANE	SR 62 REALIGNMENT FROM APPROX. 445' W/O CAMINO DEL CIELO TO TROJAN LANE-WIDEN 4-6 LANES. REALIGNING KICKAPOO TO ACOMA, RAISED MEDIAN ISLAND, TRAFFIC SIGNALS, SIDEWALKS AND STREET LIGHTS		√							√		
SB	S	CALTRANS	200848	200848	62	11.9	12.7	SR-62 (TWENTYNINE PALMS HWY)	TROJAN	AIRWAY	ON SR 62 FROM TROJAN TO AIRWAY; WIDEN 4-6 LANES, ADD MEDIANS, SIDEWALKS, CURB AND GUTTER, LIGHTS AND SIGNALS		√							√		
SB	S	YUCCA VALLEY	4M07020		62	9.0	11.9	SR-62	Kickapoo Trail (9.0)	Church St. (11.9)	WIDEN FROM 4-LANES TO 6-LANES AND REALIGN (EA:0G930)									√		

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SB	S	RANCHO CUCAMONGA	20010133	201136	66	4.1	5.6	SR-66 (FOOTHILL BL)	SAN BERNARDINO RD	VINEYARD	WIDEN FOOTHILL BOULEVARD (OLD STATE ROUTE 66) BETWEEN SAN BERNARDINO ROAD AND VINEYARD- WIDEN FROM 4-6 LANES. REMOVE THE EAST UPLAND UNDERPASS BRIDGE ALSO KNOWN AS THE PACIFIC ELECTRIC RAILROAD BRIDGE, CONSTRCT A NEW PUBLIC TRAIL BRIDGE ALONG THE RAILROAD ALIGNMENT AND ADD A RAISED MEDIAN, STREET LIGHTING, SIDEWALKS AND LANDSCAPING.	WIDEN FROM 4 TO 6 LANES	√	√			√					
SB	S	RANCHO CUCAMONGA	20020138	20020138	66	5.1	6.1	SR-66 (FOOTHILL BL)	VINEYARD	ARCHIBALD AVENUE	IN RANCHO CUCAMONGA ON FOOTHILL BLVD. FROM VINEYARD TO ARCHIBALD AVE. - WIDEN FROM 4 - 6 LANES	WIDEN FROM 4 TO 6 LANES	√	√	√							
SB	S	RANCHO CUCAMONGA	20020137	20020137	66	6.1	7.3	SR-66 (FOOTHILL BL)	ARCHIBALD	HAVEN AVENUE	IN RANCHO CUCAMONGA - ON FOOTHILL BOULEVARD-FROM ARCHIBALD TO HAVEN AVE. WIDEN PORTIONS OF AREA 4-6 LANES	WIDEN PORTIONS OF AREA FROM 4 TO 6 LANES.	√	√	√							
SB	S	RANCHO CUCAMONGA	SBD41205	SBD41205	66	9.8	10.3	SR-66 (FOOTHILL BL)	I-15	ETIWANDA	FOOTHILL BLVD. (66) I-15 TO ETIWANDA WIDEN NORTHSIDE FROM 2-3 LANES AND CONSTRUCT SIGNAL (SOUTHSIDE WIDENING COMPLETE 2-3 LANES)	WIDEN NORTHSIDE FORM 2 TO 3 LANES	√	√	√							
SB	S	RANCHO CUCAMONGA	SBD41206	SBD41206	66	10.3	10.8	SR-66 (FOOTHILL BL)	ETIWANDA	EAST STREET	FOOTHILL BLVD. (66) ETIWANDA TO EAST STREET WIDEN FROM 4-6 LANES ,INSTALL SIGNAL AND ADD MEDIAN ISLAND	WIDEN FROM 4 TO 6 LANES	√	√						√		
SB	S	FONTANA	SBD031247	SBD031247	66	10.7	13.2	SR-66 (FOOTHILL BL)	FROM EAST AVENUE	CHERRY	IN FONTANA FROM EAST AVENUE TO CHERRY - WIDEN FROM 4 TO 6 LANES WIDEN TO STATE STANDARDS FOR 6 LANE	WIDEN FROM 4 TO 6 LANES	√	√						√		
SB	S	CHINO	4A01384		83	3.9	2.8	SR-83 (EUCLID)	Merril Av	Kimball Av	WIDEN FROM 2 TO 4 LANES EACH DIR (3.9-2.8)	Existing Configuration: 1 Lane each direction								√		
SB	S	CALTRANS	46970	46970	138	0.0	14.2	SR-138	LOS ANGELES COUNTY LINE	0.23 KM EAST OF LONE PINE CANYON ROAD	ON RTE 138 FROM LA CO LINE TO 0.23KM E/O LONE PINE CANYON RD - CONSTRUCT TRUCK CLIMBING LANES AND TURNOUTS, WIDEN SHOULDERS TO 8FT, IMPROVE VERTICAL CURVE	CONSTRUCT TRUCK CLIMBING LANES	√	√	√							
SB	S	CALTRANS	4M07035		138	LA 69.3	2.9	SR-138	SR-18 IN LOS ANGELES COUNTY	PHELAN RD IN SAN BERNARDINO COUNTY	WIDEN TO 4 LANES (EA 3401U - PHASE 2) SR-18 TO PHELAN RD. BEG PM (LA 69.3) TO (LA 75.0) & (SBD 0.0) TO (SBD 2.9)									√		
SB	S	CALTRANS	34011	34011	138	2.9	15.2	SR-138	PHELAN RD	I-15	NEAR WRIGHTWOOD FROM PHELAN RD TO I-15; WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√						√			
SB	S	CALTRANS	34012	34012	138	4.6	9.0	SR-138	1.2 MILES WEST OF SHEEP CREEK ROAD	2.3 MILES EAST OF SR-2	APPLE VALLEY RD. FROM BEAR VALLEY RD. TO YUCCA LOMA RD. WIDEN EXISTING 2 LANE RD. TO 4 LANE RD. (2 LANES IN EACH DIRECTION) (1.5 MILES)	WIDEN FROM 2 TO 4 LANES	√	√	√				√			
SB	S	CALTRANS	4A01385		142	2.0	5.5	SR-142 (CHINO HILLS PKWY)	Carbon Canyon Rd	Pipeline Dr	WIDEN FROM 2 TO 3 LANES EACH DIR (PM 2.0-5.5)									√		
SB	S	VARIOUS AGENCIES	20620	20620	210	0.0	22.8	I-210	LOS ANGELES COUNTY LINE	ROUTE 215	UPLAND TO SAN BERNARDINO FROM LA CO LINE TO RTE 215 - 8 LN FREEWAY INCLUDING 2 HOV LNS (6+2) 210 CORR. W/AUX LNS THRUOUT SEGS. 9-11. SEG.11 INCL CONNECTORS BETWEEN 210 & 215 (1 NB 215 TO WB 210, 1 EB 210 TO SB 215). ANCILLARY WORK ALONG I-215: ELIMINATE LOOP OFF-RAMP FROM NB 215 TO HIGHLAND AVE, OFF-RAMP FROM NB 215 TO HIGHLAND AVE, OFF-RAMP FROM NB 215 TO 27TH ST; CONSTRUCT SLIP OFF-RAMP TO HIGHLAND FROM NB 215; ADD COLLECTOR DISTRIBUTOR ROAD (1 LN EACH DIR) FROM HIGHLAND TO 27TH ST; 27TH ST. O/C REPLACEMENT; ADD 1 NB MIXED FLOW AND 1 SB AUX LN FROM 210/215 IC TO UNIVERSITY AVE (P.M. FOR 215 (9.0-11.6).	CONSTRUCT 6 LANE FREEWAY AND 2 HOV LANES INCLUDING AUXILIARY LANES DIRECT CONNECTORS FROM NB I-215 TO WB SR210 AND FROM EBSR210 TO SBI-215;A REPLACEMENT BRDIGE FOR 27TH STREET OC ON I-215; A MIXED FLOW LANE ON NB I-215 FROM 210/215 INTERCHANGE TO UNIVERSITY PARKWAY; AN AUX LANE ON SBI-215 FROM UNIVERSITY PARKWAY TO 210/215 I/C; A COLLECTOR DISTRIBUTOR ROAD ALONG NB I-215 FROM HIGHLAND AVE. TO 27TH ST; REPLACE LOOP OFF-RAMP FROM NB I-215 TO HIGHLAND AVE. WITH A SLIP OFF-RAM; RECONFIGURE LOCAL STREETS EAST OF I-215 OFF OF 27TH ST AND OTHER MISC. IMPROVEMENTS	√	√			√					
SB	S	CALTRANS	4M01005		210	22.0	33.2	SR-210	I-215	I-10	ADD 1 MF LANE AND 1 HOV LANE EACH DIRECTION AND WIDEN UC'S (PM 22.0-33.2)									√		
SB	S	HIGHLAND	4M0801		210	27.4	0.0	SR-210	VICTORIA AVE		CONSTRUCT NEW DIAMOND IC AT VICTORIA AVE WITH 2 LANES EACH RAMP AND MODIFICATIONS TO ARDEN AVE IC									√		
SB	S	CALTRANS	4M07007 (Part 1 of 2)	201187	210	30.0	30.0	SR-210	BASE LINE		BASE LINE BETWEEN SR 210 RAMPS-WIDEN 4 TO 6 LANES								√			
SB	S	CALTRANS	4M07007 (Part 2 of 2)	201186	210	30.0	30.0	SR-210	BASE LINE		BASE LINE-RAMP WIDENING-EXTEND LANES	The Existing # of Ramp Lanes at the intersection of Base Line won't change but will be extended necessitating the widenings--S/B Off Ramp =3 Lanes, S/B On Ramp = 2 Lanes, N/B On and Off Ramps = 2 Lanes								√		
SB	S	HIGHLAND	4M1002		210	30.0	30.8	SR-210	5TH		SR 210 S/B ON-RAMP AT 5TH ST-ADD 1 LANE	(Note: this project, along with 4M1003 and 4A1009, replaces RTIP# 200429)								√		
SB	S	HIGHLAND	4M1003		210			SR-210	5TH / GREENSPOT RD		SR 210 AT 5TH ST/GREENSPOT RD-RAMP WIDENING-ADD LANES. N/B OFF RAMP FROM 2 TO 4 LANES, AND N/B OFF RAMP AND S/B ON AND OFF-RAMPS FROM 2 TO 3 LANES	(Note: this project, along with 4M1002 and 4A1009, replaces RTIP# 200429)								√		

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	S	SANBAG	4M1007		210	19.5	20.3	SR-210	PEPPER AVE		CONSTRUCT NEW FULL-SERVICE INTERCHANGE WITH DIAMOND CONFIGURATION AT SR-210 AND PEPPER AVENUE IN THE CITY OF RIALTO. ADD WB AND EB ACCEL AND DECEL LANES AND LOCAL STREET IMPROVEMENTS (CONSTRUCT 4 LANES ON PEPPER AVE FROM HIGHLAND AVE TO 160 FT SOUTH OF SR-210).									√		
SB	S	SANBAG	SBD31850	SBD31850	215	RIV 215 45.1	SBD 215 2.7	I-215	BARTON ROAD INTERCHANGE		RECONSTRUCT BARTON ROAD IC WITH MODIFIED PARTIAL CLOVERLEAF CONFIG. CONSTRUCT OVERCROSSING; ADD APPROX 1,500-FT AUX LN AT NB EXIT RAMP; CONSTRUCT NEW 1,000-FT 4-LANE SECTION OF COMMERCE WY; ADD 2 LANES TO 3,200-FT SECTION OF BARTON RD, CONSTRUCT NEW LOCAL CONNECTOR ST AT NW QUADRANT OF I/C W/2 LANES ABOUT 1,000 FT. (FROM RIV-215-45.1 TO SBD-215-2.7)		√	√							√		
SB	S	VARIOUS AGENCIES	713	713	215	4.1	10.1	I-215	ROUTE 10	ROUTE 210	I-215 CORRIDOR NORTH - IN SAN BERNARDINO FROM RTE 10 TO RTE 210 - ADD 2 HOV LANES AND 2 MIXED FLOW LANES (1 EA DIR) AND OPERATIONAL IMP INCL AUX LANES & BRAIDED RAMPS. AUX LANE: NB/SB MILL TO 2ND, NB RIALTO TO 5TH, NB/SB 3RD TO SR-259, NB/SB 5TH TO BASELINE, NB SR-259 TO HIGHLAND AVE EXIT ON SR-259, SB BASELINE EXIT TO CONNECTOR FROM SB 210, FROM NB CONNECTOR TO SR-259 TO CONNECTOR TO WB 210.	ADD 2 HOV LANES 1 LANE IN EA. DIR. AND ADD 2 MIXED FLOW - 1 LANE IN EACH DIRECTION	√	√			√						
SB	S	CALTRANS	4H01008		215	9.5	18.0	I-215	SR-210	I-15	ADD 1 HOV LANE EACH DIRECTION (PM 9.5-18.0)										√	
SB	S	CALTRANS	4M01003		215	10.0	18.0	I-215	SR-30	I-15	ADD 1 MF LANE EACH DIRECTION (10.0-18.0)										√	
SB	S	SAN BERNARDINO, CITY OF	SBD59204	SBD59204	215	11.6	0.0	I-215	AT UNIVERSITY PARKWAY		I-215 AT UNIVERSITY PARKWAY INTERCHANGE - CONSTRUCT SOUTHBOUND UNIVERSITY PARKWAY - INTERCHANGE RECONFIGURATION, AUX LANE ON EACH SIDE, NEW RAMP	CONSTRUCT SOUTHBOUND INTERCHANGE - FULL RECONFIGUARATION OF ENTIRE IC WITH AN AUX LANE ON EACH SIDE AND NEW RAMP	√				√					
SB	S	SAN BERNARDINO, CITY OF	4M01045		215	12.8	0.0	I-215	Pepper-Linden Av		CONSTRUCT INTERCHANGE AT PEPPER-LINDEN										√	
SB	S	SAN BERNARDINO, CITY OF	4M01044		215	13.5	14.5	I-215	Palm Av		INTERCHANGE (PM13.5-14.5)									√		
SB	S	SANBAG	200614	200614	215	Riv91 21.5	SBd 215 5.1	I-215	ON SR-91 AT SPRUCE ST IN RIVERSIDE COUNTY	ORANGE SHOW RD ON I-215 IN SAN BERNARDINO COUNTY	I-215 BI-COUNTY HOV LANE GAP CLOSURE PROJECT - ADD 1 HOV EACH DIR FROM SPRUCE ST ON SR-91 IN RIV CO TO ORANGE SHOW RD ON I-215 IN SB CO	Postmile Limits (south to north): Riv-91 PM 21.5 - 21.7 Riv-215 PM 43.2 - 45.3 SBd-215 PM 0.0-5.1	√						√			
SB	S	CALTRANS	4A01386		247	0.0	0.0	SR-247 (OLD WOMAN SPRINGS RD)	North of SR-62	Griffith Rd	WIDEN FROM 1 TO 2 LANES EACH DIR (EA:34430) (PM									√		
SB	S	CALTRANS	4M0802		395	4.0	19.3	US-395	I-15	1.8 mi S/O Desert Flower Rd	WIDEN FROM 2 TO 4 LANES EACH DIR AND INSTALL LEFT TURN CHANNELIZATION								√			
SB	S	VICTORVILLE	4A07141		395	0.0	0.0	US-395	Aqueduct		WIDEN US 395 AT AQUEDUCT FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	S	VICTORVILLE	4A07004		395	0.0	0.0	US-395	Aqueduct	Holly St.	WIDEN US 395 FROM AQUEDUCT TO HOLLY ST. FROM 2 TO 6 LANES OR 4 TO 6 LANES, VARIOUS SEGMENTS. 22.25 LANE MILES	Exist Config: 1 lane each direction								√		
SB	S	ADELANTO SPHERE	4A07392		395	0.0	0.0	US-395	Calleja Rd	Desert Flower Rd	WIDEN US-395 FROM CALLEJA TO DESERT FLOWER RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	S	CALTRANS	4M04009		395	0.0	0.0	US-395	NB from 0.84mi s/o Desert Flower Rd to 2.84mi n/o Purple Sage St, and from 4mi n/o Shadow Mountain Ave to 6.07mi n/o Shadow Mountain Ave	SB from 2.72mi n/o Purple Sage St to 0.95mi s/o Desert Flower Rd, and from 5.95mi n/o Shadow Mountain Ave to 3.88mi n/o Shadow Mountain Ave	ADD PASSING LANES IN BOTH DIRECTIONS AND ADJUST VERTICAL AND HORIZONTAL ALIGNMENTS (EA: 0E840)									√		
SB	L	ADELANTO	4A04406		0	0.0	0.0	ADELANTO RD	Auburn Ave	Colusa Rd	NEW ROAD, 2 LANES EACH DIR	Exist Config:								√		
SB	L	ADELANTO	4A04405		0	0.0	0.0	ASTER RD	Rancho Rd	Air Expressway	NEW ROAD, 1 LANE EACH DIR	Exist Config:					√					
SB	L	ADELANTO	4A04400		0	0.0	0.0	AUBURN/ADELANTO	Chamberlain Way (Crippen Rd)	Jonathan St	WIDEN FROM 2 TO 4 LANES EACH DIR	Exist Config:								√		
SB	L	ADELANTO	4A04407		0	0.0	0.0	BELLFLOWER ST	MOJAVE DR	BARTLETT RD	WIDEN FROM 2 TO 4 LANES EACH DIR	Exist Config:								√		
SB	L	ADELANTO	4A01004		0	0.0	0.0	EL MIRAGE RD	Richardson Rd	US-395	WIDEN FROM 2 TO 4 LANES EACH DIR	Exist Config:								√		
SB	L	ADELANTO	4A04409		0	0.0	0.0	KOALA RD	Palmdale Rd	Holly Rd	NEW ROAD, 2 LANES EACH DIR	Exist Config:									√	
SB	L	ADELANTO	4A04410		0	0.0	0.0	KOALA RD	Holly Rd	El Mirage Rd	WIDEN FROM 2 TO 4 LANES EACH DIR	Exist Config:									√	
SB	L	ADELANTO	4A04411		0	0.0	0.0	KOALA RD	El Mirage Rd	Desoto Rd	NEW ROAD, 1 LANE EACH DIR	Exist Config:									√	
SB	L	ADELANTO	4A04412		0	0.0	0.0	RANCHO RD	Koala Rd	Caughlin Rd	NEW ROAD, 2 LANES EACH DIR PLUS TURNING LANE	Exist Config:								√		
SB	L	ADELANTO SPHERE	4A07170		0	0.0	0.0	ASTER RD	MOJAVE DR	CACTUS ROAD	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: Dirt Road								√		
SB	L	APPLE VALLEY	200402	200402	0	0.0	0.0	APPLE VALLEY RD	NORTHERN TERMINUS	FALCHION ROAD	APPLE VALLEY ROAD EXTENSION - ON APPLE VALLEY ROAD FROM NORTHERN TERMINUS TO FALCHION ROAD - CONSTRUCT NEW 2 LANE ROAD	CONSTRUCT NEW 2 LANE ROAD	√	√	√							

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SB	L	APPLE VALLEY	4A01008		0	0.0	0.0	APPLE VALLEY RD	SR-18	Yucca Loma Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction							√		
SB	L	APPLE VALLEY	SBD41213	SBD41213	0	0.0	0.0	APPLE VALLEY RD	NORTHERN TERMINUS OF APPLE VALLEY ROAD	FALCHION ROAD	APPLE VALLEY ROAD EXTENSION FROM NORTHERN TERMINUS OF APPLE VALLEY RD. TO FALCHION RD. CONSTRUCT 4 LANE NEW ROAD	CONSTRUCT 4 LANE NEW ROAD	√	√	√							
SB	L	APPLE VALLEY	SBD55010	SBD55010	0	0.0	0.0	APPLE VALLEY RD	BEAR VALLEY ROAD	YUCCA LOMA ROAD	APPLE VALLEY RD. FROM BEAR VALLEY ROAD TO YUCCA LOMA RD. WIDEN EXISTING 2 LANE ROAD TO 4 LANE RD (2 LANES IN EACH DIRECTION) (1.5 MILES.	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	APPLE VALLEY	4A07024		0	0.0	0.0	ARROW RTE	Hickory Av	Tokay Ave	WIDEN ARROW ROUTE FROM HICKORY AV TO TOKAY AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction							√		
SB	L	APPLE VALLEY	4A01011		0	0.0	0.0	BEAR VALLEY RD	Apple Valley Rd	Navajo Rd	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lanes each direction								√	
SB	L	APPLE VALLEY	4A07080		0	0.0	0.0	BEAR VALLEY RD	Navajo	Joshua Rd	WIDEN BEAR VALLEY RD FROM NAVAJO RD TO JOSHUA RD FROM 2 TO 4 LANES	Exist Config: 4 lanes for a quarter mile, 2 lanes the remaining distance							√		
SB	L	APPLE VALLEY	4A07015		0	0.0	0.0	CENTRAL RD	Bear Valley	Waalew	WIDEN CENTRAL RD FROM BEAR VALLEY RD TO WAALEW RD FROM 2 TO 4 LANES	Exist Config: 1 lane in each direction							√		
SB	L	APPLE VALLEY	4A01013		0	0.0	0.0	CORWIN RD	SR-18	Dale Evans Pkwy	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction						√			
SB	L	APPLE VALLEY	4A07007		0	0.0	0.0	DALE EVANS PKWY	Thunderbird Rd	I-15	WIDEN DALE EVANS PKWY FROM THUNDERBIRD RD TO I-15 FROM 2 LANES TO 4 LANES.	Exist Config: 1 lane in each direction							√		
SB	L	APPLE VALLEY	4A07063		0	0.0	0.0	DEEP CREEK RD	Bear Valley Rd	Sitting Bull Rd	WIDEN DEEP CREEK RD FROM BEAR VALLEY RD TO SITTING BULL RD FROM 0 TO 4 LANES	Exist Config: does not currently exist								√	
SB	L	APPLE VALLEY	4A07069		0	0.0	0.0	DEEP CREEK RD	Tussing Ranch Rd	Bear Valley Rd	WIDEN DEEP CREEK RD FROM TUSSING RACH RD TO BEAR VALLEY RD FROM 2 TO 4 LANES	Exist Config: 1 lane in each direction							√		
SB	L	APPLE VALLEY	4A07010		0	0.0	0.0	DEL ORO RD	Apple Valley Rd	Central Rd	WIDEN DEL ORO RD FROM APPLEY VALLEY RD TO CENTRAL RD FROM 0 LANES TO 2 LANES	Exist Config: 2 lanes in parts, mostly not build yet							√		
SB	L	APPLE VALLEY	4A07006		0	0.0	0.0	FALCHION RD	I-15	Dale Evans Pkwy	WIDEN FALCHION RD FROM I-15 TO DALE EVANS PKWY FROM 0 TO 4 LANES	Exist Config: not built yet				√					
SB	L	APPLE VALLEY	4A07161		0	0.0	0.0	FALCHION RD	Dale Evans	Navajo	WIDEN FALCHION RD FROM DALE EVANS PKWY TO NAVAJO RD FROM 0 TO 6 LANES	Exist Config: not built yet							√		
SB	L	APPLE VALLEY	4A04017		0	0.0	0.0	KIOWA RD	Yucca Loma Rd	Bear Valley Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction						√			
SB	L	APPLE VALLEY	4A07070		0	0.0	0.0	KIOWA RD	Ocotillo Rd	Bear Valley Rd	WIDEN KIOWA RD FROM OCOTILLO RD TO BEAR VALLEY RD FROM 2 TO 4 LANES	Exist Config: 1 lane in each direction								√	
SB	L	APPLE VALLEY	4A07071		0	0.0	0.0	NAVAJO RD	SR-18	Thunderbird Rd	WIDEN NAVAJO RD FROM SR-18 TO THUNDERBIRD RD FROM 2 TO 4 LANES	Exist Config: 1 lane in each direction							√		
SB	L	APPLE VALLEY	4A07032		0	0.0	0.0	RANCHERIAS RD	Rincon	Corwin Rd	WIDEN RANCHERIAS RD FROM RINCON RD TO CORWIN RD FROM 2 TO 4 LANES	Exist Config: mostly 1 lane in each direction, small portion not built yet								√	
SB	L	APPLE VALLEY	4A07026		0	0.0	0.0	SITTING BULL RD	Apple Valley Rd	Navajo Rd	WIDEN SITTING BULL RD FROM APPLE VALLEY RD TO NAVAJO RD FROM 2 TO 4 LANES	Exist Config: 1 lane in each direction								√	
SB	L	APPLE VALLEY	4A01018		0	0.0	0.0	THUNDERBIRD RD	Rancherias Rd	Central Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction							√		
SB	L	APPLE VALLEY	4A07029		0	0.0	0.0	WAALEW RD	Corwin Rd	Central	WIDEN WAALEW RD FROM CORWIN RD TO CENTRAL RD FROM 2 TO 4 LANES	Exist Config: 1 lane in each direction							√		
SB	L	APPLE VALLEY	200049	200049	0	0.0	0.0	YUCCA LOMA RD			MOJAVE RIVER BRIDGE CROSSING FROM TERMINUS OF YUCCA LOMA RD TO TERMINUS OF GREEN TREE BLVD - PRE. ENVIRONMENTAL REVIEW FOR CONSTRUCTION OF NEW 4 LANE BRIDGE	Yucca Loma on the east and connecting to Yates and around to Green Tree Blvd. New 2 lanes in each direction.	√						√			
SB	L	APPLE VALLEY	SBD55011	SBD55011	0	0.0	0.0	YUCCA LOMA RD	APPLE VALLEY ROAD	NANVAJO ROAD	YUCCA LOMA RD. FROM APPLE VALLEY RD. TO NAVAJO RD. WIDEN EXISTING 2 LANE RD. TO 4 LANE RD. (2 LANES IN EACH DIRECTION) (3 MILES)	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	APPLE VALLEY	SBD55012	SBD55012	0	0.0	0.0	YUCCA LOMA RD	AT SR 18		YUCCA LOMA RD. AT SR 18 CONNECTION NEW CONNECTION - CONNECTING YUCCA LOMA RD. AND SR 18 - NEW INTER- SECTION	CONNECTING YUCCA LOMA ROAD AND SR 18 NEW INTERSECTION	√							√		
SB	L	APPLE VALLEY SPHERE	4A07074		0	0.0	0.0	BEAR VALLEY CUTOFF	Joshua Rd	SR-18	WIDEN BEAR VALLEY CUOFF FROM JOSHUA RD TO SR-18 FROM 2 TO 6 LANES	Exist Config: 1 lane each direction								√	
SB	L	APPLE VALLEY SPHERE	4A07091		0	0.0	0.0	CENTRAL RD	Roundup Wy	n/ Poppy	WIDEN CENTRAL RD FROM ROUNDUP WY TO N/ POPPY RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√	
SB	L	APPLE VALLEY SPHERE	4A07082		0	0.0	0.0	ROCK SPRINGS RD	Mojave River Cl	Kiowa Rd	WIDEN ROCK SPRINGS RD FROM MOJAVE RIVER CRL TO KIOWA RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√	
SB	L	APPLE VALLEY SPHERE	4A07123		0	0.0	0.0	ROCK SPRINGS RD	Glendale Ave	Mojave River Cl	WIDEN ROCK SPRINGS RD FROM GLENDALE AVE TO MOJAVE RIVER CRL FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√	
SB	L	APPLE VALLEY SPHERE	4A07058		0	0.0	0.0	ROUNDUP WY	Kiowa	Central	WIDEN ROUNDUP WY FROM KIOWA RD TO CENTRAL FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√	
SB	L	BIG BEAR LAKE	4A01025		0	0.0	0.0	BIG BEAR BL	WEST CITY LIMITS	EAST CITY LIMITS	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 4.5 miles of 2 lane highway; 2.5 miles of 4 lane highway					√				
SB	L	CHINO	4A01027		0	0.0	0.0	CENTRAL AVE	Chino Ave	El Prado	WIDEN FROM 2 TO 3 LANES EACH DIR (NOTE: OVERLAPS RTIP#SBD41236 SBD31933 FROM SR-71 TO EL PRADO)	Exist Config: 2 Lanes in each direction							√		
SB	L	CHINO	4A01026		0	0.0	0.0	CENTRAL AV	FRANCIS AV	RIVERSIDE DR	WIDEN FROM 3 TO 4 LANES EACH DIR	Exist Config: 2-3 Lanes each direction							√		
SB	L	CHINO	4A01028		0	0.0	0.0	CHINO AVE	CENTRAL AVE	MOUNTAIN AVE	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 Lane each direction							√		
SB	L	CHINO	4A01029		0	0.0	0.0	CHINO AVE	CENTRAL AVE	600' EAST OF MONTE VISTA	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 Lane each direction							√		
SB	L	CHINO	4A01030		0	0.0	0.0	CHINO AVE	FERN AV	EUCLID AV	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 Lane each direction					√				

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	CHINO	200202	200202	0	0.0	0.0	CHINO AVE	MONTE VISTA	SIXTH STREET	IN CHINO - ON CHINO AVENUE FROM MONTE VISTA TO SIXTH STREET-WIDEN EXISTING 2 LANES TO 4 LANES AND INSTALL SIGNAL AT INTERSECTION OF CHINO AVE. AND MONTE VISTA	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	CHINO	4A07205		0	0.0	0.0	CHINO AVE	Mountain	Fern	WIDEN CHINO FROM MOUNTAIN TO FERN FROM 2 TO 4 LANES	Exist Config: 1 Lane each direction								√		
SB	L	CHINO	4A01031		0	0.0	0.0	CHINO AVE	SR-71	EAST END AVE	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lanes each direction										√
SB	L	CHINO	4A0802	201115	0	0.0	0.0	CHINO-CORONA RD EAST-WEST	HELLMAN AVE	CHINO-CORONA RD NORTH-SOUTH	WIDEN TO 2 LANES IN EACH DIRECTION, PLUS BUILDING NEW BRIDGE OVER MILLCREEK AND DRAINAGE	THE CHINO-CORONA ROAD IMPROVEMENTS PROJECT IS LOCATED IN THE NEWLY ANNEXED AREA OF THE CITY OF CHINO. IMPROVEMENTS INCLUDE CONSTRUCTION OF A NEW BRIDGE CROSSING OVER MILL CREEK, A NATURAL DRAINAGE SYSTEM OWNED AND MAINTAINED BY UNITED STATES ARMY CORPS OF ENGINEERS ALONG CHINO-CORONA ROAD.							√			
SB	L	CHINO	4A01032		0	0.0	0.0	EDISON AV	CENTRAL AV	EUCLID AV	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lanes each direction								√		
SB	L	CHINO	4A01033		0	0.0	0.0	EDISON AV	Pipeline	Ramona Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lanes each direction								√		
SB	L	CHINO	SBD031118	SBD031118	0	0.0	0.0	EDISON AVE	RAMONA	CENTRAL	EDISON AVENUE RAMONA TO CENTRAL WIDEN FROM 4 LANES TO 6 LANES & REHABILITATION (SPOT WIDENING)	WIDEN FROM 4 TO 6 LANES	√						√			
SB	L	CHINO	4A04035		0	0.0	0.0	EUCLID AV	KIMBALL	PINE	WIDEN FROM 2 TO 4 LANES EACH DIR	Exist Config: 2 Lanes each direction								√		
SB	L	CHINO	4A04036		0	0.0	0.0	EUCLID AV	PINE	SR71	WIDEN FROM 1 TO 4 LANES EACH DIR	Exist Config: 1 Lane each direction										√
SB	L	CHINO	4A01037		0	0.0	0.0	FRANCIS AV	West City Limit	Benson Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 Lane each direction								√		
SB	L	CHINO	4A04038		0	0.0	0.0	HELLMAN AVE	KIMBALL	CHINO CORONA RD	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: Most of the road does not exist.								√		
SB	L	CHINO	4A07052		0	0.0	0.0	KIMBALL	Euclid	Hellman	WIDEN KIMBALL FROM EUCLID TO HELLMAN FROM 2 TO 4 LANES	Exist Config: 1 Lane each direction								√		
SB	L	CHINO	4A01040		0	0.0	0.0	MERRILL AVE	Euclid Av	East City Limit	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 Lane each direction								√		
SB	L	CHINO	4A01041		0	0.0	0.0	MOUNTAIN AVE	Philadelphia St	Riverside Dr	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lanes each direction									√	
SB	L	CHINO	4A07172		0	0.0	0.0	MOUNTAIN AVE	Chino	Edison	WIDEN MOUNTAIN FROM CHINO TO EDISON FROM 2 TO 4 LANES	Exist Config: 1 Lane each direction								√		
SB	L	CHINO	4A07329		0	0.0	0.0	MOUNTAIN AVE	Bickmore	El Prado	WIDEN MOUNTAIN AVENUE FROM BICKMORE TO EL PRADO	Exist Config: 1 Lane each direction								√		
SB	L	CHINO	4A01042		0	0.0	0.0	PHILADELPHIA ST	Central Av	Benson Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lanes each direction								√		
SB	L	CHINO	4A01043		0	0.0	0.0	PHILADELPHIA ST	LA County Line	Central Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 Lane each direction								√		
SB	L	CHINO	200207	200207	0	0.0	0.0	PINE AVE	SR71	EUCLID	IN CHINO - ON PINE AVE EXTENSION FROM SR-71 TO EUCLID IN THE CITY OF CHINO- WIDEN BRIDGE FROM 2-4 LANES	WIDEN BRIDGE FROM 2 TO 4 LANES	√							√		
SB	L	CHINO	4A04044		0	0.0	0.0	PINE AVE	SR71	Euclid Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 Lane each direction. Connection to SR71 not complete.								√		
SB	L	CHINO	4A04045		0	0.0	0.0	PINE AVE	Euclid Av	Hellman	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 Lane each direction								√		
SB	L	CHINO	4A01046		0	0.0	0.0	RIVERSIDE DR	Benson Av	Magnolia Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lanes each direction								√		
SB	L	CHINO	4A01047		0	0.0	0.0	RIVERSIDE DR	Fern Av	Euclid Av	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 Lane each direction								√		
SB	L	CHINO	4A01048		0	0.0	0.0	RIVERSIDE DR	Mountain Av	Magnolia Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lanes each direction								√		
SB	L	CHINO	4A01049		0	0.0	0.0	RIVERSIDE DR	Pipeline	Fern Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lanes each direction								√		
SB	L	CHINO	SBD031152	SBD031152	0	0.0	0.0	RIVERSIDE DR	SAN ANTONIO FLOOD CONTROL CHANNEL		RIVERSIDE DRIVE AT SAN ANTONIO FLOOD CONTROL CHANNEL WIDEN BRIDGE FROM 4 LANES TO 6 LANES	WIDEN BRIDGE FROM 4 TO 6 LANES	√					√				
SB	L	CHINO	4A01050		0	0.0	0.0	RIVERSIDE DR	WEST CITY LIMITS	BENSON AV	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lanes each direction								√		
SB	L	CHINO	4A01051		0	0.0	0.0	SCHAEFER AV	Benson Av	Euclid Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: Partially completed						√				
SB	L	CHINO / CHINO HILLS	4A01062		0	0.0	0.0	CHINO HILLS PKWY	RAMONA	600 FT. EAST OF RAMONA	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lanes each direction								√		
SB	L	CHINO / ONTARIO	4A01063		0	0.0	0.0	EL PRADO RD	Central Av	Pine Ave	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 Lane each direction								√		
SB	L	CHINO HILLS	SBD31785	SBD31785	0	0.0	0.0	EUCALYPTUS AVE	CHINO HILLS COMM PARK	GALLOPING HILLS ROAD	EUCALYPTUS AVENUE CHINO HILLS COMM PARK TO GALLOPING HILLS RD. CONSTRUCT 2 LANE ROAD	CONSTRUCT 2 LANE ROAD	√	√	√							
SB	L	CHINO HILLS	4A1003	SBD31785	0	0.0	0.0	EUCALYPTUS AVE	PEYTON DRIVE	CHINO HILLS COMM PARK ENTRANCE	EUCALYPTUS AVENUE PEYTON DRIVE TO CHINO HILLS COMM PARK ENTRANCE CONSTRUCT 2 LANE ROAD	CONSTRUCT 2 LANE ROAD	√	√				√				
SB	L	CHINO HILLS	200401	200401	0	0.0	0.0	FAIRFIELD RANCH RD	950 FT. S/O FAIRFIELD RANCH ROAD INTERSECTION	5000 FT. PARALLEL TO SR71 TO PINE INTERSECTION	FAIRFIELD RANCH EXT.-EXTEND FAIRFIELD RANCH RD. FROM 950 FT. S/O INTERSECTION OF FFRANCH RD TO 5000 FT. PARALLEL TO SR71 TO PINE INTERSECTION-CONSTRUCT NEW 2 LANE RD. W/BIKE LANES	CONSTRUCT NEW 2 LANE ROAD	√						√			
SB	L	CHINO HILLS	4A07057		0	0.0	0.0	FAIRFIELD RANCH RD	Skate Park	Pine Avenue	EXTEND THE THE EXISTING FAIRFIELD RANCH ROAD TO PINE AVENUE, 2 LANES WITH BIKE LANES	Exist Config: 2 lane collector with bike lanes							√			

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	CHINO HILLS	SBD41241	SBD41241	0	0.0	0.0	PEYTON DR Soquel Canyon Pkway	AT WOODVIEW ROAD Pipeline ave.	SOQUEL CANYON PARKWAY Woodview	PEYTON DRIVE/WOODVIEW ROAD TO SOQUEL CANYON PARKWAY CONSTRUCT NEW 2 LANE_ROAD INCLUDED ARE BICYCLE LANES MARKED IN EACH DIRECTION SOQUEL CANYON PARKWAY EXTENSNION CONSTRUCT NEW 2 LANE_ROAD W BIKE LANES FROM EXISTING TERMINUS OF SOQUEL CANYON PARKWAY AT PIPELINE AVE. TO WOODVIEW ROAD AT MEDLARINCLUDED ARE BICYCLE LANES MARKED IN EACH DIRECTION	CONSTRUCT NEW 2 LANE ROAD	√						√			
SB	L	CHINO HILLS	SBD41242	SBD41242	0	0.0	0.0	PEYTON DR	GRAND	ENGLISH RD	PEYTON DRIVE: FROM GRAND AVE TO ENGLISH RD WIDEN FROM 2 TO 6 LNS W/MARKED BIKE LNS IN EA DIR	WIDEN FROM 2 TO 6 LANES; PROJECT SPLIT INTO 3 PHASES. PHASES 2 AND 3 ARE PROJECTS 4A1001 AND 4A1002	√	√	√							
SB	L	CHINO HILLS	4A1001		0	0.0	0.0	PEYTON DR	ENGLISH RD	EUCALYPTUS	PEYTON DRIVEFROM ENGLISH RD TO EUCALYPTUS;WIDEN PEYTON FROM 4 TO 6 LNS W/ MARKED BIKE LNS IN EA.DIRECT	PROJECT SPLIT OUT AS PHASE 2 OF 3 OF ORIGINAL PROJECT SBD41242 (PHASE 3 IS 4A1002)	√	√				√				
SB	L	CHINO HILLS	4A1002	20083402	0	0.0	0.0	PEYTON DR	EUCALYPTUS	SR-142	PEYTON DRIVEFROM EUCALYPTUS TO SR-142;WIDEN PEYTON FROM 2 TO 4 LNS W/ MARKED BIKE LNS	PROJECT SPLIT OUT AS PHASE 3 OF 3 OF ORIGINAL PROJECT SBD41242 (PHASE 2 IS 4A1001)	√	√			√					
SB	L	CHINO HILLS	4A07116		0	0.0	0.0	PINE AVE	SR-71	Chino Creek	WIDEN PINE AVE FROM SR-71 TO CHINO CREEK (NORTH SIDE ONLY)	Exist Config: 4 lane arterial					√					
SB	L	CHINO HILLS	4C01002		0	0.0	0.0	TONNER CANYON (FOUR CORNERS)	Grand	SR-57	NEW ARTERIAL CORRIDOR CONNECTING CHINO HILLS WITH SR-57 (LA/OR CO.) WITH 2 LANES EACH DIR, ACCESS TO SR-57 AT BREA CYN RD OR TONNER CYN RD, CONNECTION TO GRAND AVE AND EUCALYPTUS AVE, NO CONNECTION TO VALENCIA AVE	Exist Config: n/a								√		
SB	L	CHINO HILLS	SBD41239	SBD41239	0	0.0	0.0	WOODVIEW AVE / PIPELINE (WOODVIEW TURNS INTO PIPELINE)	PEYTON DRIVE		WOODVIEW AVE/PIPELINE TO PEYTON DR. WIDEN WOODVIEW AVE. FROM 30FT.-52FT W/2LANES AND MARKED BIKE LANES IN EACH DIRECTION, INCLUDES CURB, GUTTER AND SIDEWALK IMPROVEMENTS	WIDEN FROM TO 2 TO 4 LANES WITH 2 IN EACH DIRECTION	√					√				
SB	L	CHINO SPHERE	4A07133		0	0.0	0.0	EAST END AVE	Chino Ave	Walnut Ave	WIDEN EAST END AVE FROM CHINO AVE TO WALNUT AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07146		0	0.0	0.0	EAST END AVE	Philadelphia Av	Phillips Blvd	WIDEN EAST END AV FROM PHILADELPHIA AV TO PHILLIPS BLVD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A01272		0	0.0	0.0	FRANCIS AV	East End	Telephone	WIDEN FRANCIS FROM EAST END TO TELEPHONE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07191		0	0.0	0.0	PHILADELPHIA ST	East End Av	Norton Ave	WIDEN PHILADELPHIA AV FROM EAST END AV TO NORTON AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07269		0	0.0	0.0	PHILADELPHIA ST	Ramona	Monte Vista	WIDEN PHILADELPHIA AV FROM RAMONA TO MONTE VISTA FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07293		0	0.0	0.0	PHILADELPHIA ST	Los Angeles Crl	East End Av	WIDEN PHILADELPHIA AV FROM LOS ANGELES CRL TO EAST END AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07107		0	0.0	0.0	PHILLIPS BL	Yorba Av	Benson Av	WIDEN PHILLIPS BLVD FROM YORBA AV TO BENSON AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07059		0	0.0	0.0	PIPE LINE AVE	Philadelphia	Mission Blvd	WIDEN PIPE LINE AV FROM PHILADELPHIA AV TO MISSION BLVD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07216		0	0.0	0.0	PIPE LINE AVE	Chino Av	Riverside Dr	WIDEN PIPE LINE AV FROM CHINO AVE TO RIVERSIDE DR FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07279		0	0.0	0.0	PIPE LINE AVE	Riverside	Walnut	WIDEN PIPE LINE AV FROM RIVERSIDE AV TO WALNUT AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07303		0	0.0	0.0	PIPE LINE AVE	Walnut	.25 m North	WIDEN PIPE LINE AV FROM WALNUT AV TO .25 M NORTH FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07151		0	0.0	0.0	RAMONA AVE	Philadelphia	Phillips Blvd	WIDEN RAMONA AV FROM PHILADELPHIA TO PHILLIPS BLVD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07354		0	0.0	0.0	WALNUT AVE	.12 m w/o Norton Ave	.03 m e/o Norton Av	WIDEN WALNUT AV FROM .12 M W/O NORTON TO .03 M E/O NORTON FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CHINO SPHERE	4A07363		0	0.0	0.0	WALNUT AVE	.10 m w/ o Roswell Ave	Roswell Av	WIDEN WALNUT AV FROM .10 M W/O ROSWELL AV TO ROSWELL AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	CITIES & COUNTY	200403	200403	0		0.0	EVANS WEST ST	REDLANDS BLVD	BARTON	CONSTRUCT 4 NEW LANES; A NORTH-SOUTH ARTERIAL ROADWAY FROM REDLANDS BLVD TO BARTON RD, JUST WEST OF ANDERSON ST		√							√		
SB	L	COLTON	4A01066		0	0.0	0.0	BARTON RD	S. CITY LIMITS	WATERMAN AV	WIDEN FROM 2 TO 3 LANES EACH DIR (NOTE: OVERLAPS RTIP#200064 AND SBD78022, RECHE CYN TO WATERMAN)	Exist Config: 4 Lane Major Arterial Street						√				
SB	L	COLTON	4A04067		0	0.0	0.0	FAIRWAY DR	Sperry Dr	City Limits	WIDEN FROM 2 TO 4 LANES EACH DIR	Exist Config: 2 Lane Secondary Arterial Street								√		
SB	L	COLTON	4A01068		0	0.0	0.0	K AND L STREETS	3RD ST	5TH ST	WIDEN TO 1 LANE EACH DIR	Exist Config: 2 Lane Local Street					√					
SB	L	COLTON	4A01069		0	0.0	0.0	LA CADENA DR	Rancho Av	South City Limits	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 4 Lane Major Arterial Street								√		
SB	L	COLTON	SBD031157	SBD031157	0	0.0	0.0	MILL ST	BOARDWELL	RANCHO	MILL STREET BORDWELL TO RANCHO WIDEN ROADWAY AND BRIDGE FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√						√			

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	COLTON	200856	200856	0	0.0	0.0	MT VERNON BRIDGE	"M" STREET	I-10 ON RAMP	MT. VERNON BRIDGE OVER UPRR -ON MT. VERNON AVE. FROM "M" ST. TO I-10 ON RAMP. WIDENING BRIDGE FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	COLTON	4A04071		0	0.0	0.0	MOUNT VERNON AVE	La Cadena Dr	I-10	WIDEN FROM 2 TO 4 LANES EACH DIR	Exist Config: 4 Lane Major Arterial Street								√		
SB	L	COLTON	4A04077		0	0.0	0.0	RECHE CANYON RD	BARTON RD	CITY LIMITS	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lane Major Arterial Street								√		
SB	L	COLTON	SBD031154	SBD031154	0	0.0	0.0	RECHE CANYON RD	WASHINGTON STREET	CITY LIMITS	RECHE CANYON ROAD WASHINGTON STREET TO CITY LIMITS WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	COLTON	4A01079		0	0.0	0.0	RIVERSIDE AVE	Riverside County Line	North City Limit	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 4 Lane Major Arterial Street									√	
SB	L	COLTON	4A01082		0	0.0	0.0	VALLEY BL	Sycamore Av	Mt. Vernon Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 4 Lane Major Arterial Street								√		
SB	L	COLTON	200064	200064	0	0.0	0.0	WASHINGTON ST	RECHE CANYON	HUNTS LANE	WASHINGTON ST FROM RECHE CANYON TO HUNTS LANE - ELIMINATE BOTTLENECK, ADD 2 LANES TO 4 LANE ROAD USING EXISTING STREET WIDTH AT INTERSECTIONS, TRAFFIC SIGNAL IMPROVEMENTS	ADD 2 LANES TO 4 LANE ROAD	√	√			√					
SB	L	COLTON	4A07106	201157	0	0.0	0.0	WASHINGTON ST	West end of Washington Street	La Cadena Drive	WASHINGTON ST EXTENSION TO LA CADENA DR	Exist Config: NO EXISTING STREET								√		
SB	L	COLTON	4A07194		0	0.0	0.0	WASHINGTON ST	Barton Rd	I-215	WIDEN WASHINGTON FROM BARTON RD TO I-215 FROM 4 TO 6 LANES	Exist Config: 4 Lane Major Arterial Street								√		
SB	L	COLTON SPHERE	4A07226		0	0.0	0.0	AGUA MANSA RD	Rancho Av	Rialto Channel	WIDEN AGUA MANSA RD FROM 0080M W, RANCHO AVE E0073 FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	COLTON SPHERE	4A07192		0	0.0	0.0	C ST	0007M W, Jackson	E/0007M,Tejon Ave	WIDEN C STREET FROM 0007M W, JACKSON E/0007M E, TEJON AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	COLTON SPHERE	4A07197		0	0.0	0.0	OLIVE ST	0007M W, Jackson	E/0003M W Rancho Ave	WIDEN OLIVE STREET FROM 0007M W, JACKSON E/0003M W, RANCHO AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	COLTON SPHERE	4A07200	201159	0	0.0	0.0	PEPPER AVE	Slover	Agua Mansa	PEPPER AVE. (segment south of I-10) FROM SLOVER TO AGUA MANSA - NEW 2 LANE CONNECTION. TRAFFIC SIGNAL AT PEPPER AND AGUA MANSA.	Exist Config: 1 lane each direction								√		
SB	L	COLTON SPHERE	4A07204		0	0.0	0.0	RECHE CANYON RD	1.2 m s/o Barton Rd	.78m north	WIDEN RECHE CNYN RD FROM 1.2M S/O BARTON RD TO .78M NORTH FROM 2 TO 4 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	COLTON SPHERE	4A07313		0	0.0	0.0	RECHE CANYON RD	.067m nw/o Riv County Line	Colton City Limits	WIDEN RECHE CNYN RD FROM .067M N/W RIV COUNTY LINE TO COLTON CITY LIMITS FROM 2 TO 4 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	SBD031218	SBD031218	0	0.0	0.0	ALDER AVE	BASELINE	FOOTHILL BLVD	ALDER AVENUE BASELINE TO FOOTHILL BOULEVARD WIDEN 2 LANES TO 4 LANES W/TURN LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	FONTANA	SBD031238	SBD031238	0	0.0	0.0	ALDER AVE	VALLEY	SAN BERNARDINO AVENUE	ALDER AVENUE VALLEY TO SAN BERNARDINO AVENUE WIDEN 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√		√							
SB	L	FONTANA	4A07066		0	0.0	0.0	ARROW BL	Alder Ave	Maple Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	SBD031233	SBD031233	0	0.0	0.0	ARROW BL	ALDER	MAPLE AVENUE	ARROW BOULEVARD ALDER TO MAPLE AVENUE WIDEN 2 LANES TO 4 LANES	WIDEN 2 TO 4 LANES	√	√					√			
SB	L	FONTANA	SBD031235	SBD031235	0	0.0	0.0	ARROW HWY	CHERRY	CITRUS AVENUE	ARROW HIGHWAY CHERRY TO CITRUS AVENUE WIDEN 2 LANES TO 4 LANES	WIDEN 2 TO 4 LANES	√							√		
SB	L	FONTANA	4A07083		0	0.0	0.0	BASELINE AVE	Mango	Maple	BASELINE AVE FROM MANGO AVE TO MAPLE AVE WIDEN FROM 2 TO 6 LANES	Exist Config: 1 lane each direction						√				
SB	L	FONTANA	4A07212		0	0.0	0.0	BASELINE AVE	Sierra	Mango	BASELINE AVE FROM SIERRA AVE TO MANGO AVE WIDEN FROM 2 TO 6 LANES	Exist Config: 1 lane each direction						√				
SB	L	FONTANA	SBD031241	SBD031241	0	0.0	0.0	BASELINE AVE	CITRUS AVENUE	MAPLE AVENUE	BASELINE AVENUE FROM CITRUS TO MAPLE AVENUE ADD UP TO 5' SHOULDER & WIDEN FROM 2 TO 6 LANES (SCHEDULE DELAY ALSO)	WIDEN FROM 2 TO 6 LANES	√	√	√							
SB	L	FONTANA	SBD031217	SBD031217	0	0.0	0.0	BEECH AVE	SR30	FOOTHILL BLVD	BEECH AVENUE STATE ROUTE 30 TO FOOTHILL BOULEVARD WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	FONTANA	SBD031239	SBD031239	0	0.0	0.0	BEECH AVE	VALLEY	COUNTY LINE BLVD	BEECH AVENUE VALLEY TO COUNTY LINE BOULEVARD WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	FONTANA	SBD031240	SBD031240	0	0.0	0.0	BEECH AVE	ARROW BLVD	FOOTHILL BLVD	BEECH AVENUE ARROW BOULEVARD TO FOOTHILL BLVD WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	FONTANA	4A04084	201139	0	0.0	0.0	CASA GRANDE AVE	Lytle Creek Knox	Sierra Av	NEW ROAD, 2 LANES EACH DIR	Exist Config: Does not exist								√		
SB	L	FONTANA	4A04085	201139	0	0.0	0.0	CASA GRANDE AVE	Sierra Av	Mango Av	NEW ROAD, 2 LANES EACH DIR	Exist Config: Does not exist					√			√		
SB	L	FONTANA	4A01086		0	0.0	0.0	CASMALIA AVE (CARTER AVE)	Sierra Av	Mango Av	NEW WIDEN ROAD, 2 LANES EACH DIR	Exist Config: 1 lane each direction					√					
SB	L	FONTANA	4A01089		0	0.0	0.0	CHERRY AVE	Jurupa Av	Slover Av	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction					√					
SB	L	FONTANA	4A04087	201107	0	0.0	0.0	CHERRY AVE	Highland	I-15	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction							√			
SB	L	FONTANA	4A04091		0	0.0	0.0	CHERRY AVE	Valley Bl	San Bernardino Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	SBD031190	SBD031190	0	0.0	0.0	CHERRY AVE	BASELINE AVENUE	HIGHLAND AVENUE	(PROJECT SPLIT FROM SBD031265).	WIDEN FROM 2 TO 6 LANES	√	√			√					
SB	L	FONTANA	SBD031230	SBD031230	0	0.0	0.0	CHERRY AVE	JURUPA AVENUE	SLOVER AVENUE	CHERRY AVENUE JURUPA AVENUE TO SLOVER AVENUE WIDEN FROM 2 TO 6 LANES (1.0 MILE)	WIDEN FROM 2 TO 6 LANES	√	√	√							
SB	L	FONTANA	200006	200006	0	0.0	0.0	CITRUS AVE	JURUPA	SLOVER AVENU	CITRUS AVENUE FROM JURUPA TO SLOVER - WIDEN FROM 2-4 LANES W/LEFT TURN LANES AT INTERSECTIONS (SLOVER, SANTA ANA AVE. & JURUPA-3 INTERSECTIONS)	WIDEN FROM 2 TO 4 LANES	√					√				
SB	L	FONTANA	4A01093	201140	0	0.0	0.0	CITRUS AVE	I-15	Summit Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		

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CO	SYS*	LEAD AGENCY	RTP ID	RTIP ID	RTE	BEG PM	END PM	STREET	FROM	TO	DESCRIPTION	ADDITIONAL DETAILS, IF AVAILABLE	2008 RTIP	NO BUILD	NETWORK YR (PROJECT COMPLETION BY)**							
															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	FONTANA	4A01094		0	0.0	0.0	CITRUS AVE	San Bernardino Av	Valley Bl	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	4A01096		0	0.0	0.0	CITRUS AVE	Slover Av	Jurupa Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	4A04095		0	0.0	0.0	CITRUS AVE	San Bernardino Av	Foothill Blvd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	4A07114		0	0.0	0.0	COYOTE CNYN	Saddleback	I-15	COYOTE CANYON RD FROM SADDLEBACK RD TO I-15 WIDEN FROM 0 TO 4 LANES	Exist Config: Does not exist								√		
SB	L	FONTANA	4A1004		0	0.0	0.0	CYPRESS AVE	Slover Avenue	Jurupa Avenue	Cypress Avenue from Slover Avenue to Jurupa Avenue. Widen from 2 lanes to 4 lanes.							√				
SB	L	FONTANA	4A1005	201142	0	0.0	0.0	CYPRESS AVE	Duncan Canyon Road	Frontage Road (I-15)	Cypress Avenue from Duncan Canyon Road to Frontage Road (I-15)	New two lane Road								√		
SB	L	FONTANA	4A04098		0	0.0	0.0	CYPRESS AVE	South Highland Av	Sierra Lakes Parkway	NEW OVERCROSSING AT 210, 2 LANES EACH DIR	Exist Config: Does not exist								√		
SB	L	FONTANA	4A01099	201143	0	0.0	0.0	DUNCAN CANYON RD	Citrus Av	Sierra Av	NEW ROAD, 2 LANES EACH DIR	Exist Config: Does not exist							√			
SB	L	FONTANA	4A1006	201166	0	0.0	0.0	DUNCAN CANYON RD	I-15	Citrus Av	Duncan Canyon Road from I-15 to Citrus Avenue. Widen from 2 to 4 lanes	Widen from 2 to 4 lanes							√			
SB	L	FONTANA	SBD031228	SBD031228	0	0.0	0.0	ETIWANDA AVE	RIVERSIDE COUNTY LINE	I-10	ETIWANDA AVENUE RIVERSIDE COUNTY LINE TO INTERSTATE 10 WIDEN FROM 4 TO 6 LANES, LEFT TURN LANES & SIGNALS (2)	WIDEN FROM 4 TO 6 LANES	√	√					√			
SB	L	FONTANA	4A04101		0	0.0	0.0	FONTANA AVE	Valley Bl Poplar	Merrill	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	SBD031248	SBD031248	0	0.0	0.0	FONTANA AVE	VALLEY BLVD.	MERRILL AVENUE	FONTANA AVENUE VALLEY BOULEVARD TO MERRILL AVENUE WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√	√					√			
SB	L	FONTANA	4A04102		0	0.0	0.0	FOOTHILL BL	Hemlock	Almeria	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 Lanes each direction								√		
SB	L	FONTANA	SBD031246	SBD031246	0	0.0	0.0	FOOTHILL BL	CITRUS AVENUE	MAPLE AVENUE	FOOTHILL BOULEVARD CITRUS AVENUE TO MAPLE AVENUE WIDEN TO STATE STANDARDS FROM 4 TO 6 LANES	WIDEN FROM 4 TO 6 LANES	√							√		
SB	L	FONTANA	201167	201167	0	0.0	0.0	FOOTHILL BL	CHERRY	HEMLOCK	WIDEN FROM 4 TO 6 LANES	Note: replaces SBD031271 and SBD031247; SBD031247 was completed from East Ave to Cherry	√	√				√				
SB	L	FONTANA	4A01104		0	0.0	0.0	FRONTAGE RD (I-15)	DUNCAN CANYON RD	RIVERSIDE AV	NEW ROAD, 2 LANES EACH DIR	Exist Config: Does not exist								√		
SB	L	FONTANA	4A01107		0	0.0	0.0	JURUPA AVE	Etiwanda Av	Live Oak Sierra	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction						√				
SB	L	FONTANA	4A04108	201144	0	0.0	0.0	JURUPA AVE	Tamarind	Alder Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction							√			
SB	L	FONTANA	SBD031227	SBD031227	0	0.0	0.0	JURUPA AVE	ETIWANDA	SIERRA AVENUE	JURUPA AVENUE ETIWANDA TO SIERRA AVENUE CONSTRUCT 6 LANE ROAD - NEW ROAD	CONSTRUCT 6 LANE ROAD Note: In the 04 RTIP WAS "LIVE OAK TO SIERRA"	√						√			
SB	L	FONTANA	4A04110		0	0.0	0.0	LIVE OAK RD	Valley Bl	Merrill	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	SBD031225	SBD031225	0	0.0	0.0	LOCUST AVE	RIVERSIDE COUNTY LINE	JURUPA AVENUE	LOCUST AVENUE RIVERSIDE COUNTY LINE TO JURUPA AVENUE WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√						√		
SB	L	FONTANA	4A07045		0	0.0	0.0	LYTLE CREEK	Summit Ave	Sierra Ave	LYTLE CREEK FROM SUMMIT AVE TO SIERRA AVE WIDEN FROM 0 TO 4 LANES	Exist Config: Does not exist								√		
SB	L	FONTANA	4A04114		0	0.0	0.0	MERRILL AVE	Catawba	Fontana Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	SBD031252	SBD031252	0	0.0	0.0	MERRILL AVE	CITRUS AVENUE	ALDER AVENUE	MERRILL AVENUE CITRUS AVENUE TO ALDER AVENUE WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	FONTANA	SBD031254	SBD031254	0	0.0	0.0	MERRILL AVE	ALDER	MAPLE AVENUE	MERRILL AVENUE ALDER TO MAPLE AVENUE WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	FONTANA	4A04413		0	0.0	0.0	MULBERRY AVE	Slover Av	Valley Bl	CONSTRUCT GRADE SEPARATION	Exist Config:								√		
SB	L	FONTANA	4A07271		0	0.0	0.0	MULBERRY AVE	Jurupa	Santa Ana	MULBERRY AVE FROM JURUPA AVE TO SANTA ANA AVE WIDEN FROM 2 TO 4 LANES	Exist Config: 1 lane each direction						√				
SB	L	FONTANA	SBD031221	SBD031221	0	0.0	0.0	PHILADELPHIA ST	MULBERRY	ETIWANDA AVENUE	PHILADELPHIA STREET MULBERRY TO ETIWANDA AVENUE CONSTRUCT 4 LANE ROAD (1.0 MILE) - NEW ROAD	CONSTRUCT 4 LANE ROAD	√							√		
SB	L	FONTANA	4A07225	SBD031259	0	0.0	0.0	RANDALL AVE	Alder	Maple	RANDALL AV FROM ALDER TO MAPLE WIDEN FROM 2 TO 4 LANES	Exist Config: 1 lane each direction							√			
SB	L	FONTANA	SBD031258	SBD031258	0	0.0	0.0	RANDALL AVE	CATAWABA AVENUE	CITRUS AVENUE	RANDALL AVENUE CATAWABA AVENUE TO CITRUS AVENUE WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	FONTANA	SBD031259	SBD031259	0	0.0	0.0	RANDALL AVE	ALDER AVENUE	MAPLE AVENUE	RANDALL AVENUE ALDER AVENUE TO MAPLE AVENUE WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√					√			
SB	L	FONTANA	SBD031261	SBD031261	0	0.0	0.0	SAN BERNARDINO AVE	FONTANA AVENUE	ALDER AVENUE	SAN BERNARDINO AVE FROM FONTANA AVE TO ALDER AVENUE SPOT WIDENING FROM 4 TO 6 LANES (TO ACCOMMODATE TRANSITIONS ON SIDE STREETS, PE= PAED & PS&E)	WIDEN FROM 4 TO 6 LANES	√	√	√							
SB	L	FONTANA	SBD031264	SBD031264	0	0.0	0.0	SAN BERNARDINO AVE	ALDER	LOCUST AVE	SAN BERNARDINO AVENUE ALDER TO LOCUST AVENUE WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	FONTANA	4A07084		0	0.0	0.0	SAN SEVAINE	Baseline	Summit	SAN SEVAINE RD FROM BASELINE AVE TO SUMMIT AVE WIDEN FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	SBD031220	SBD031220	0	0.0	0.0	SANTA ANA AVE	MULBERRY	LIVE OAK AVENUE	SANTA ANA AVENUE MULBERRY TO LIVE OAK AVENUE WIDEN FROM 2 TO 4 LANES-INCLUDES RR CROSSING	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	FONTANA	SBD031260	SBD031260	0	0.0	0.0	SANTA ANA AVE	SIERRA	TAMARIND AVENUE	SANTA ANA AVENUE SIERRA TO TAMARIND AVENUE WIDEN FROM 2 TO 4 LANES & INSTALL TRAFFIC SIGNALS (2)	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	FONTANA	2002112	2002112	0	0.0	0.0	SIERRA AVE	WALNUT	S. HIGHLAND	IN FONTANA ON SIERRA AVE. FROM WALNUT TO S. HIGHLAND - WIDEN FROM 4-6 LANES.	WIDEN FROM 4 TO 6 LANES	√	√	√							
SB	L	FONTANA	4A04122		0	0.0	0.0	SIERRA AVE	San Bernardino Av	Foothill Blvd	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lane each direction								√		

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CO	SYS*	LEAD AGENCY	RTP ID	RTIP ID	RTE	BEG PM	END PM	STREET	FROM	TO	DESCRIPTION	ADDITIONAL DETAILS, IF AVAILABLE	2008 RTIP	NO BUILD	NETWORK YR (PROJECT COMPLETION BY)**							
															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	FONTANA	4A04123		0	0.0	0.0	SIERRA AVE	Slover Av	Valley Bl	WIDEN FROM 3 TO 4 LANES EACH DIR	Exist Config: 3 lanes each direction								√		
SB	L	FONTANA	4A04125		0	0.0	0.0	SIERRA AVE	Summit Av	I-15	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction							√			
SB	L	FONTANA	4A04126	201145	0	0.0	0.0	SIERRA AVE	Valley Bl	San Bernardino Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lane each direction						√				
SB	L	FONTANA	SBD031207	SBD031207	0	0.0	0.0	SIERRA AVE	AT SANTE FE RAILROAD		SIERRA AVENUE AT SANTA FE RAILROAD CONSTRUCT 6 LANE UNDERCROSSING	CONSTRUCT 6 LANE UNDERCROSSING	√							√		
SB	L	FONTANA	SBD031265	SBD031265	0	0.0	0.0	SIERRA AVE	BASELINE	WALNUT	SIERRA AVENUE FROM BASELINE TO WALNUT- WIDEN FROM 4 TO 6 LANES (PROJECT SPLIT WITH #20020112)	WIDEN FROM 4 TO 6 LANES	√	√	√							
SB	L	FONTANA	SBD031266	SBD031266	0	0.0	0.0	SIERRA AVE	FOOTHILL BLVD	BASELINE AVENUE	SIERRA AVENUE FOOTHILL BOULEVARD TO BASELINE AVENUE- WIDEN FROM 4 TO 6 LANES	WIDEN FROM 4 TO 6 LANES	√						√			
SB	L	FONTANA	4A04127	201146	0	0.0	0.0	SIERRA LAKES PKWY	Beech	Citrus	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction							√			
SB	L	FONTANA	4A07034		0	0.0	0.0	SIERRA LAKES PKWY	Cherry	Almeria	SIERRA LAKES PKWY FROM CHERRY AVE TO ALMERIA AVE WIDEN FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	4A01132	201147	0	0.0	0.0	SLOVER AV	Etiwanda Av	800 feet east of Etiwanda	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction							√			
SB	L	FONTANA	4A07259		0	0.0	0.0	SLOVER AV	Tamarind	E. City Limits	SLOVER AV FROM TAMARIND AV TO E. CITY LIMITS WIDEN FROM 4 TO 6 LANES	Exist Config: 2 lane each direction								√		
SB	L	FONTANA	4A07056	201148	0	0.0	0.0	SO. HIGHLAND AV	Cherry	Citrus	SO. HIGHLAND AVE FROM CHERRY AVE TO CITRUS AVE WIDEN FROM 2 TO 4 LANES	Exist Config: 1 lane each direction							√			
SB	L	FONTANA	4A07103		0	0.0	0.0	SO. HIGHLAND AV	Baseline	Cherry	SO. HIGHLAND FROM BASELINE RD TO CHERRY AV WIDEN FROM 0 LANES TO 4 LANES.	Exist Config: Does not exist								√		
SB	L	FONTANA	4A07166		0	0.0	0.0	SO. HIGHLAND AV	Sierra	Palmetto	SO. HIGHLAND AVE FROM SIERRA AVE TO PALMETTO AVE WIDEN FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	4A07167		0	0.0	0.0	SUMMIT AVE	Cherry Av	San Sevaine	SUMMIT AV FROM CHERRY AV TO SAN SEVAINE WIDEN FROM 2 LANES TO 4 LANES.	Exist Config: 1 lane each direction								√		
SB	L	FONTANA	SBD031270	SBD031270	0	0.0	0.0	SUMMIT AVE	BEECH AVENUE	SIERRA AVENUE	SUMMIT AVENUE BEECH AVENUE TO SIERRA AVENUE WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	FONTANA	4A07272		0	0.0	0.0	VALLEY BL	Almond	Cherry	VALLEY BLVD FROM ALMOND AVE TO CHERRY AVE WIDEN FROM 4 TO 6 LANES	Exist Config: 2 lane each direction								√		
SB	L	FONTANA	4A07274	201162	0	0.0	0.0	VALLEY BL	Beech	Citrus	VALLEY BLVD FROM BEECH AVE TO CITRUS AVE WIDEN FROM 4 TO 6 LANES	Exist Config: 2 lane each direction								√		
SB	L	FONTANA	4A07273	201149	0	0.0	0.0	VALLEY BL	Cherry	Beech	VALLEY BLVD FROM HEMLOCK AVE TO BEECH AVE WIDEN FROM 4 TO 6 LANES	Exist Config: 2 lane each direction								√		
SB	L	FONTANA	4A1007	201163	0	0.0	0.0	VALLEY BL	Citrus	Sierra	VALLEY BLVD FROM CITRUS TO SIERRA WIDEN FROM 4 TO 6 LANES	Exist Config: 2 lane each direction								√		
SB	L	FONTANA	4A07140	201164	0	0.0	0.0	VALLEY BL	Sierra	Alder	VALLEY BLVD FROM SIERRA AVE TO ALDER AVE WIDEN FROM 4 TO 6 LANES	Exist Config: 2 lane each direction								√		
SB	L	FONTANA	4A04137		0	0.0	0.0	WALNUT AVE	Almeria	Sierra	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction							√			
SB	L	FONTANA	4A07077		0	0.0	0.0	WALNUT AVE	I-15	San Servaine	WALNUT AVE FROM I-15 TO SAN SERVAINE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07251		0	0.0	0.0	ALDER AVE	Valley	San Bernardino	WIDEN ALDER AVE FROM VALLEY BLVD TO SAN BERNARDINO AV FROM 2 LANES TO 4	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07349		0	0.0	0.0	ALDER AVE	Taylor St	Valley Blvd	WIDEN ALDER AVE FROM TAYLOR ST TO VALLEY BLVD FROM 2 LANES TO 4	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07145		0	0.0	0.0	BANANA AVE	Jurupa	N/Slover	WIDEN BANANA AVE FROM JURUPA AVE TO N/SLOVER AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07104		0	0.0	0.0	BEECH AVE	Randall Av	Arrow Route	WIDEN BEECH AVE FROM RANDALL AVE TO ARROW ROUTE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07157		0	0.0	0.0	BEECH AVE	Valley	Randall	WIDEN BEECH AVE FROM VALLEY TO RANDALL AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07185		0	0.0	0.0	BEECH AVE	Arrow Route	SH-66	WIDEN BEECH AVE FROM ARROW ROUTE TO SH-66 FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07143		0	0.0	0.0	CALABASH AVE	Whittram Ave	N/Foothill Blvd	WIDEN CALABASH AVE FROM WHITTRAM AVE TO N/FOOTHILL BLVD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07048		0	0.0	0.0	CERES AVE	Merril	Catawba	WIDEN CERES AVE FROM MERRILL AVE TO CATAWBA AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07040		0	0.0	0.0	CHERRY AVE	Valley	Foothill	WIDEN CHERRY AV FROM VALLEY TO FOOTHILL BLVD FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	FONTANA SPHERE	4A07297		0	0.0	0.0	DUNCAN CANYON RD	.33 m w/o I-15	e/o I-15	WIDEN DUNCAN CANYON RD FROM .33 M W/O I-15 TO E/O I-15	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07014		0	0.0	0.0	FONTANA AVE	Valley	Poplar	WIDEN FONTANA AVE FROM VALLEY BLVD TO POPLAR AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07187		0	0.0	0.0	LIVE OAK AVE	Arrow Route	Foothill	WIDEN LIVE OAK AVE FROM ARROW ROUTE TO FOOTHILL FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07055		0	0.0	0.0	MERRILL AVE	Cherry	Catawba	WIDEN MERRILL AVE FROM CHERRY AV TO CATAWBA FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A04115		0	0.0	0.0	MULBERRY AVE	Valley Bl	San Bernardino Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A04401		0	0.0	0.0	MULBERRY AVE	Jurupa Av	Slover Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07061		0	0.0	0.0	RANDALL AVE	Cherry Av	Poplar Ave	WIDEN RANDALL AVE FROM CHERRY AV TO POPLAR AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07222		0	0.0	0.0	RANDALL AVE	Alder	Cedar	WIDEN RANDALL AVE FROM ALDER AVE TO CEDAR AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07033		0	0.0	0.0	SAN BERNARDINO AVE	Alder Ave	Laurel Ave	WIDEN SAN BERNARDINO AVE FROM ALDER AVE TO LAUREL AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	FONTANA SPHERE	4A07072		0	0.0	0.0	SAN BERNARDINO AVE	Cherry Ave	Fontana Avenue	WIDEN SAN BERNARDINO AVE FROM CHERRY AVE TO FONTANA CITY LIMITS FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07079		0	0.0	0.0	SAN BERNARDINO AVE	Laurel Ave	Rialto City Limits	WIDEN SAN BERNARDINO AVE FROM LAUREL AVE TO RIALTO CITY LIMITS FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07109		0	0.0	0.0	SAN BERNARDINO AVE	Etiwanda Ave	Cherry Ave	WIDEN SAN BERNARDINO AVE FROM ETIWANDA AVE TO CHERRY AVE FROM 5 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	FONTANA SPHERE	4A07158		0	0.0	0.0	SANTA ANA AVE	Mulberry Ave	Redwood Ave	WIDEN SANTA ANA AV FROM MULLBERRY AVE TO REDWOOD AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	FONTANA SPHERE	4A07201		0	0.0	0.0	VALLEY BL	Etiwanda Ave	Commerce Dr	WIDEN VALLEY BLVD FROM ETIWANDA AVE TO COMMERCE DR FROM 5 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	FONTANA SPHERE	4A07218		0	0.0	0.0	VALLEY BL	Commerce Dr	Almond Av	WIDEN VALLEY BLVD FROM COMMERCE DR TO ALMOND AVE FROM 5 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	FONTANA SPHERE	4A07284		0	0.0	0.0	VALLEY BL	Cherry Ave	Hemlock	WIDEN VALLEY BLVD FROM CHERRY AVE TO HEMLOCK AVE FROM 5 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	GRAND TERRACE	4A01139		0	0.0	0.0	BARTON RD	Honey Hills	N.E. City Limits	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: one lane in each direction					√					
SB	L	GRAND TERRACE	4A01141		0	0.0	0.0	BARTON RD	I-215	WEST CITY LIMITS	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: one lane in each direction								√		
SB	L	GRAND TERRACE	4A07027		0	0.0	0.0	COMMERCE WY	Pico	Main St.	WIDEN COMMERCE WY FROM PICO AVE TO MAIN ST FROM 2 TO 4 LANES	Exist Config: does not exist						√				
SB	L	GRAND TERRACE	4A07085		0	0.0	0.0	COMMERCE WY	900 ft. North of De Berry	Pico	WIDEN COMMERCE WY FROM 900' N/O DEBERRY RD TO PICO AV FROM 2 TO 4 LANES	Exist Config: does not exist					√					
SB	L	GRAND TERRACE	4A1008		0	0.0	0.0	COMMERCE WY	MICHIGAN AV	BARTON RD @ VIVIENDA AV	EXTEND COMMERCE WAY FROM MICHIGAN AVENUE TO BARTON ROAD AT VIVIENDA AVENUE. (4 LANES)	Exist Config: does not exist						√				
SB	L	GRAND TERRACE	200807	200807	0	0.0	0.0	MAIN STREET	BNSF	WEST CITY LIMITS	MAIN STREET WIDENING - BNSF TO WEST CITY LIMITS-WIDENING FROM 1-2 LANES IN THE W/B DIRECTION-	WIDEN FROM 1TO 2 LANES IN WESTBOUND DIRECTION.	√						√			
SB	L	GRAND TERRACE	4A07356		0	0.0	0.0	MAIN ST	S.F.R.R.	S.P.R.R.	WIDEN MAIN ST (W.B.) FROM SFRR TO SPRR FROM 2 TO 4 LANES	Exist Config: one lane in each direction			√							
SB	L	GRAND TERRACE	4A07268	201105	0	0.0	0.0	Michigan Ave.	Commerce Wy	DeBerry St	WIDEN MICHIGAN ST FROM COMMERCE WY TO DEBERRY ST FROM 2 LANES TO 4 LANES.	Exist Config: one lane in each direction						√				
SB	L	GRAND TERRACE	4A07310		0	0.0	0.0	MICHIGAN ST	Barton Rd	Commerce Wy	WIDEN MICHIGAN ST FROM BARTON RD TO COMMERCE WY FROM 2 TO 4 LANES	Exist Config: two lanes in each direction/minor widening only			√							
SB	L	GRAND TERRACE	200808	200808	0	0	0	MT.VERNON AVE	RAVEN WAY	PICO ST	MT. VERNON AVEN. WIDENING - WIDEN FROM 1-2 LANES NORTHBOUND FROM RAVEN WAY TO PICO ST..	WIDEN FROM 1 TO 2 LANES NORTHBOUND	√				√					
SB	L	GRAND TERRACE	4A01146		0	0.0	0.0	MOUNT VERNON AVE	Canal St	North City Limits	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: two lanes southbound/1 lane northbound							√			
SB	L	GRAND TERRACE	4A07289		0	0.0	0.0	MOUNT VERNON AVE	Barton Rd	700' n/o Minona St	WIDEN MT VERNON AV FROM BARTON RD 700' N/O MINONA ST FROM 2 LANES TO 4 LANES.	Exist Config: two lanes southbound/1 lane northbound					√					
SB	L	HESPERIA	4A01147		0	0.0	0.0	7TH AVE	Ranchero Rd	Bear Valley Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction								√		
SB	L	HESPERIA	200210	200210	0	0.0	0.0	BEAR VALLEY RD	I-15	MOJAVE RIVER	IN HESPERIA - ON BEAR VALLEY RD. FROM I-15 TO MOJAVE RIVER (CITY LIMITS) APPROX. 5.5 MILES - WIDEN SOUTHSIDE FROM 2-3 LANES	WIDEN SOUTHSIDE FROM 2 TO 3 LANES	√	√	√							
SB	L	HESPERIA	4A07037		0	0.0	0.0	E ST	Main St	I St	WIDEN E ST FROM MAIN ST TO I ST FROM 2 TO 4 LANES	Exist Config: 1 lane in each direction								√		
SB	L	HESPERIA	4A01149		0	0.0	0.0	ESCONDIDO AV	Main St	Sultana St	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane in each direction						√				
SB	L	HESPERIA	200209	200209	0	0.0	0.0	ESCONDIDO RD	RANCHERO	CEDAR	IN HESPERIA - PAVE ESCONDIDO ROAD FROM RANCHERO TO CEDAR (2.0 MILES). PAVE 4 LANES OF ROADWAY TO 2 LANES IN EACH DIRECTION	PAVE 4 LANES OF ROADWAY 2 LANES IN EACH DIRECTION.	√					√				
SB	L	HESPERIA	4A01151		0	0.0	0.0	EUCALYPTUS ST	I-15	Peach Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: Roadway exists in certain locations								√		
SB	L	HESPERIA	4A01152		0	0.0	0.0	HESPERIA RD	Bear Valley	Yucca St	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction							√			
SB	L	HESPERIA	4A07129		0	0.0	0.0	HESPERIA RD	Mesquite	Lime	WIDEN HESPERIA RD FROM MESQUITE TO LIME FROM 0 TO 4 LANES	Exist Config: No roadway exists									√	
SB	L	HESPERIA	4A07206		0	0.0	0.0	HESPERIA RD	Lime	Main	WIDEN HESPERIA RD FROM LIME TO MAIN FROM 2 TO 4 LANES	Exist Config: 1 lane in each direction								√		
SB	L	HESPERIA	SBD031284	SBD031284	0	0.0	0.0	I AVE	FRANCHERO ROAD	MAIN STREET	"I" AVENUE FROM RANCHERO RD TO MAIN ST. WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	HESPERIA	200211	200211	0	0.0	0.0	I ST	MAIN STREET	BEAR VALLEY ROAD	IN HESPERIA ON I STREET FROM MAIN ST. TO BEAR VALLEY RD. APPROX. 4.4 MILES - WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	HESPERIA	4A01155		0	0.0	0.0	LEMON ST	Mauna Loa	Mohave River	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction									√	
SB	L	HESPERIA	4A01156		0	0.0	0.0	MAIN ST	7th Av	I Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lane in each direction										√
SB	L	HESPERIA	4A01157		0	0.0	0.0	MAIN ST	I-15	US Hwy 395	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction								√		
SB	L	HESPERIA	4A01158		0	0.0	0.0	MAIN ST	I-15	Escondido Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lane in each direction						√				
SB	L	HESPERIA	4A07102		0	0.0	0.0	MAIN ST	I St	Rock Springs Rd	WIDEN MAIN ST FROM I ST TO ROCK SPRINGS RD FROM 4 TO 6 LANES	Exist Config: 1 lane in each direction									√	
SB	L	HESPERIA	4A07217		0	0.0	0.0	MAIN ST	11th St	7th St	WIDEN MAIN ST FROM 11TH ST TO 7TH ST FROM 4 TO 6 LANES	Exist Config: 2 lane in each direction										√
SB	L	HESPERIA	SBD55025	SBD55025	0	0.0	0.0	MAIN ST	US-395	11TH AVENUE	MAIN STREET FROM US-395 TO 11TH AVE - WIDEN AND RECONSTRUCT FROM 4 - 6 LANES, INCLUDING WIDENING OF BRIDGE OVER CALIFORNIA AQUEDUCT (2.75 MILES)	WIDEN AND RECONSTRUCT FROM 4 TO 6 LANES INCLUDING WIDENING OF BRIDGE OVER CALIFORNIA AQUEDUCT	√					√				
SB	L	HESPERIA	4A01159		0	0.0	0.0	MAPLE AV	Eucalyptus Av	Main St	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction									√	

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	HESPERIA	4A07090		0	0.0	0.0	MARIPOSA RD	Eucalyptus	Bear Valley Rd	WIDEN MARIPOSA FROM EUCALYPTUS TO BEAR VALLEY RD FROM 2 TO 4 LANES	Exist Config: 1 lane in each direction									√	
SB	L	HESPERIA	4A01161		0	0.0	0.0	MAUNA LOA	7th Av	Lemon St	NEW ROAD, 2 LANES EACH DIR	Exist Config: No roadway exists										√
SB	L	HESPERIA	4A01162		0	0.0	0.0	MAUNA LOA	Maple Av	7th Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction										√
SB	L	HESPERIA	4A01163		0	0.0	0.0	MESQUITE ST	Topaz Av	Maple Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction								√		
SB	L	HESPERIA	4A01165		0	0.0	0.0	MOJAVE ST	I-15	Maple Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: Existing dirt								√		
SB	L	HESPERIA	SBD031276	SBD031276	0	0.0	0.0	RANCHERO RD	7TH AVENUE	DANBURY ROAD	RANCHERO ROAD 7TH AVENUE TO DANBURY REALIGN ROAD AND WIDEN FROM 2-4 LANES AND CONSTRUCT RAILROAD UNDERCROSSING	WIDEN FROM 2 TO 4 LANES	√	√				√				
SB	L	HESPERIA	SBD55028	SBD55028	0	0.0	0.0	RANCHERO RD	DANBURY	ARROWHEAD LAKE ROAD	RANCHERO RD. FROM DANBURY TO ARROWHEAD LAKE RD. - WIDEN FROM 2 TO 4 LANES (9.50 MILES)	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	HESPERIA	SBD55030	SBD55030	0	0.0	0.0	RANCHERO RD	I15	7TH STREET	RANCHERO RD. FROM I-15 TO 7TH ST. - WIDEN FROM 2 TO 4 LANES (5.50 MILES)	WIDEN FROM 2 TO 4 LANES	√					√				
SB	L	HESPERIA	SBD41289	SBD41289	0	0.0	0.0	RANCHO LAS FLORES PKWY	HWY 138	RANCHERO ROAD	RANCHO LAS FLORES PARKWAY -NO LANES CURRENTLY EXIST. DEVELOPER TO CONST RUCT HIGHWY 138 TO RANCHERO RD. 2 LANES IN EACH DIRECTION.	NEW STREET 2 LANES IN EACH DIRECTION	√	√					√			
SB	L	HESPERIA	4A01168		0	0.0	0.0	ROCK SPRINGS RD	Arrowhead Lake Rd	E City Limits	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane in each direction						√				
SB	L	HESPERIA	4A07095		0	0.0	0.0	SUMMIT VALLEY RD	4.31m n/o SH-138	N/o SH-138 1.20m	WIDEN SUMMIT VALLEY RD FROM 4.31M N, SR-138 (HSP CL) N 1.20M (HSP CL)	Exist Config: 1 lane in each direction								√		
SB	L	HESPERIA	SBD55027	SBD55027	0	0.0	0.0	SUMMIT VALLEY RD	RANCHERO ROAD	SR138	SUMMIT VALLEY RD. FROM RANCHERO RD. TO SR138 - DESIGN, ACQUIRE ROW AND CONSTRUCT NEW 2 LANE RD. (6.00 MILES)	CONSTRUCT NEW 2 LANE ROAD	√	√	√							
SB	L	HESPERIA SPHERE	4A07065		0	0.0	0.0	RANCHERO ST	.94m e/o Mariposa	Escondido Ave	WIDEN RANCHERO RD FROM .94M E/O MARIPOSA RD TO ESCONDIDO AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	HESPERIA SPHERE	4A07110		0	0.0	0.0	RANCHERO ST	Escondido Ave	Hesperia City Limits	WIDEN RANCHERO RD FROM ESCONDIDO AVE TO HESPERIA CITY LIMITS FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	HESPERIA SPHERE	4A07122		0	0.0	0.0	RANCHERO ST	Mariposa Rd	East .94m	WIDEN RANCHERO RD FROM .94M E/O MARIPOSA RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	HESPERIA SPHERE	4A07053		0	0.0	0.0	SUMMIT VALLEY RD	1.88m n/o SH-138	n/o SH-138 2.18m	WIDEN SUMMIT VALLEY RD FROM 1.88M N, SR-138 N 2.18M (HSP CL)	Exist Config: 1 lane each direction								√		
SB	L	HESPERIA SPHERE	4A07097		0	0.0	0.0	SUMMIT VALLEY RD	Mariposa	E/o Mariposa Rd .94m	WIDEN SUMMIT VALLEY RD FROM SR-138 NO188M (E,PVMT) FROM 2 TO 4 LANES	Exist Config: 1 lane each direction										√
SB	L	HESPERIA SPHERE	4A07117		0	0.0	0.0	SUMMIT VALLEY RD	4.31m n/o SH-138	N/o SH-138 1.20m	WIDEN SUMMIT VALLEY RD FROM 4.31M N, SR-138 (HSP CL) N 1.20M (HSP CL)	Exist Config: 1 lane each direction								√		
SB	L	HIGHLAND	200213	200213	0	0.0	0.0	3RD ST	PALM AVENUE	5TH STREET	ON 3RD ST. FROM PALM AVE. TO 5TH ST. WIDEN 3RD ST. OF E/O PALM AVE. FROM 2 TO 3 LANES (ADD 1 EB LANE) AND EXTEND 3RD ST. EASTERLY TO CONNECT 5TH ST.	WIDEN FROM 2 TO 3 LANES (ADD 1 EB LANE) AND EXTEND 3RD STREET EASTERLY TO CONNECT 5TH STREET	√					√				
SB	L	HIGHLAND	4A07064		0	0.0	0.0	3RD ST	Victoria Ave	Palm Ave	WIDEN 3RD ST FROM VICTORIA AVE TO PALM AVE	Exist Config: Deficeint 4 lanes				√						
SB	L	HIGHLAND	4A07137	201181	0	0.0	0.0	3RD ST	Tippecanoe Ave	Victoria	3RD ST FROM VICTORIA AVE TO LELAND/NORTON WIDEN FROM 2 TO 4 LANES AND FROM LELAND/NORTON TO TIPPECANOE WIDEN FROM 4 TO 6 LANES	Exist Config: Deficient 4 lanes VICTORIA TO LELAND NORTON, FROM 2 TO 4 LANES. LELAND NORTON TO TIPPECANOE, FROM 4 TO 6 LANES. (NOTE: FORMERLY PART OF 200852)								√		
SB	L	HIGHLAND	4A07203		0	0.0	0.0	3RD ST	Palm Av	5th St	WIDEN 3RD ST FROM PALM AVE. TO 5TH ST. FROM 2 TO 4 LANES	Exist Config: 2 Lanes						√				
SB	L	HIGHLAND	200852	200852	0	0.0	0.0	DEL ROSA DR	3RD	6TH ST	DEL ROSA DRIVE FROM 3RD TO 6TH ST-WIDEN FROM 2-4 LANES	(NOTE: 200852 WAS SPLIT INTO SEPARATE PROJECTS: DEL ROSA; 3RD ST; 5TH ST; STERLING)	√							√		
SB	L	HIGHLAND	4A01387	2011103	0	0.0	0.0	5TH ST	Victoria Av	SR-210	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes (Note: replaces RTIP# 200430)						√				
SB	L	HIGHLAND	4A01388	201183	0	0.0	0.0	5TH ST	Tippecanoe	Victoria	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes (NOTE: FORMERLY PART OF 200852)								√		
SB	L	HIGHLAND	SBD55032	SBD55032	0	0.0	0.0	5TH ST	BOULDER AVENUE	ROUTE 30	FIFTH STREET FROM BOULDER AVENUE TO SR30 - WIDEN FROM 2 TO 4 LANES (0.80 MILES)	WIDEN FROM 2 TO 4 LANES	√	√						√		
SB	L	HIGHLAND	4A07062		0	0.0	0.0	9TH ST	Del Rosa Dr	Victoria Av	WIDEN 9TH ST FROM DEL ROSA DR TO VICTORIA AV FROM 2 TO 4 LANES	Exist Config: 2 lanes									√	
SB	L	HIGHLAND	4A07353		0	0.0	0.0	9TH ST	Tippecanoe Ave	Fairfax Ln	WIDEN 9TH ST FROM TIPPECANOE AVE TO FAIRFAX LN FROM 2 LANES TO 4 LANES.	Exist Config: 2 lanes									√	
SB	L	HIGHLAND	SBD55031	SBD55031	0	0.0	0.0	ALABAMA ST	3RD STREET	SOUTH CITY LIMITS	ALABAMA STREET FROM 3RD STREET TO SOUTH CITY LIMITS - WIDEN FROM 2 TO 4 LANES (0.25 MILES)	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	HIGHLAND	4A07180		0	0.0	0.0	ARDEN AVE	Termini	Lankershim	EXTEND ARDEN AV TO CONNECT TO LANKERSHIM AVE FROM 0-4 LANES	Exist Config: 0 lanes									√	
SB	L	HIGHLAND	4A07016		0	0.0	0.0	BASE LINE ST	Boulder Ave	Church St	WIDEN BASE LINE FROM BOULDER AVE TO CHURCH ST (INCLUDING BRIDGE AT CITY CR.)	Exist Config: Deficient 4 lanes						√				
SB	L	HIGHLAND	4A07038A	20082402	0	0.0	0.0	BASE LINE ST	Church Ave	Seine Ave	WIDEN BASE LINE FROM CHURCH AVE TO SEINE AVE FROM 4 LANES TO 6 LANES (INCLUDING SR 30 BRIDGE WIDENING).	Exist Config: 4 lanes							√			
SB	L	HIGHLAND	4A07038B	201168	0	0.0	0.0	BASE LINE ST	Seine Ave	Boulder Ave	WIDEN BASE LINE FROM SEINE AVE TO BOULDER AVE FROM 4 LANES TO 6 LANES	Exist Config: 4 lanes								√		

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	HIGHLAND	4A07046		0	0.0	0.0	BASE LINE ST	W.City Limit	Palm Ave	WIDEN BASE LINE FROM W.CITY LIMIT TO PALM AVE	Exist Config: Deficient 4 lanes									√	
SB	L	HIGHLAND	200018	200018	0	0.0	0.0	BOULDER AVE	ACROSS CITY CREEK	S/O BASELINE	BOULDER AV ACROSS CITY CREEK S/O BASELINE - RECONSTRUCT EXISTING BRIDGE FROM 2 TO 4 LANES; ALSO WIDEN BOULDER AVE FROM 190' NORTH TO 1,430' SOUTH OF BRIDGE FROM 2-4 LANES	RECONSTRUCT EXISTING BRIDGE FROM 2 TO 4 LANES;ALSO WIDEN BOULDER AVE FROM 190' NORTH TO 1,430' SOUTH OF BRIDGE FROM 2-4 LANES	√	√				√				
SB	L	HIGHLAND	4A07009		0	0.0	0.0	BOULDER AVE	BASE LINE	5TH ST	WIDEN BOULDER AVE FROM 2 LANES TO 4 LANES (INCLUDING BRIDGE).	Exist Config: 2 lanes					√					
SB	L	HIGHLAND	4A07168		0	0.0	0.0	BOULDER AVE	5th St	S. City Limits	WIDEN BOULDER AVE FROM 5TH ST TO S. CITY LIMITS FROM 2 TO 4 LANES (INCLUDING BRIDGE)	Exist Config: 2 lanes								√		
SB	L	HIGHLAND	SBD55033	SBD55033	0	0.0	0.0	BOULDER AVE	GREENSPOT RD	SOUTH CITY LIMITS	BOULDER AVE. FROM GREENSPOT RD TO SOUTH CITY LIMITS - WIDEN FROM 2-4 LANES (0.60 MILES)	WIDEN FROM 2TO 4 LANES	√							√		
SB	L	HIGHLAND	4A07150		0	0.0	0.0	CONE CAMP	Greenspot	South City Limit	CONSTRUCT NEW STREET CONE CAMP FROM GREENSPOT RD TO SOUTH CITY LIMITS FROM 0 TO 2 LANES (INCLUDING ENVIRONMENTAL)	Exist Config: 0 lanes									√	
SB	L	HIGHLAND	4A07328		0	0.0	0.0	CUNNINGHAM ST	9th St	Base Lline	WIDEN CUNNINGHAM	Exist Config: Deficient 2 lanes								√		
SB	L	HIGHLAND	SBD31886	SBD31886	0	0.0	0.0	CUNNINGHAM ST	9TH STREET	BASELINE ROAD	CUNNINGHAM STREET FROM NINTH STREET TO BASELINE - WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	HIGHLAND	4A07214	201180	0	0.0	0.0	DEL ROSA DR	3rd St	6th Street	WIDEN DEL ROSA DR FROM 3RD ST TO N.CITY LIMIT FROM 2 LANES TO 4 LANES.	Exist Config: 2 lanes								√		
SB	L	HIGHLAND	20061014	201156	0	0.0	0.0	GREENSPOT ROAD	SANTA PAULA	2600' SOUTH OF SANTA ANA RIVER	IN HIGHLAND ON GREENSPOT ROAD --ORIGINALLY PART OF 200212-GREENSPOT RD. FROM SANTA PAULA TO APPROX.2,600' SOUTH OF SANTA ANA RIVER-WIDEN 2-4 LANES WITH MEDIAN	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	HIGHLAND	20061015	20061015	0	0.0	0.0	GREENSPOT RD	AT SANTA ANA RIVER CROSSING		ON GREENSPOT RD. BRIDGE OVER SANTA ANA RIVER (.045)-CONSTRUCT NEW 4 LN BRIDGE AT SANTA ANA RVR W/ CHANNEL IMPROVMENTS-REALIGN APPROX 2400' OF 2 LANE RD.	CONSTRUCT A NEW 4 LANE BRIDGE	√	√				√				
SB	L	HIGHLAND	4A1009	2011152	0	0.0	0.0	GREENSPOT RD	AT SR-210		GREENSPOT RD BETWEEN SR 210 RAMPS - WIDEN FROM 4-5 LANES (.10)	THIS PROJECT WILL INCREASE THE ROADWAY TO HAVE 3 E/B THRU LANES							√			
SB	L	HIGHLAND	200853	200853	0	0.0	0.0	GREENSPOT ROAD	BOULDER AVE	SR-210	GREENSPOT FROM BOULDER AVE. TO SR-210 - WIDEN FROM 4-6 LANES (0.80)	WIDEN FROM 4 TO 6 LANES	√				√					
SB	L	HIGHLAND	4A01173		0	0.0	0.0	GREENSPOT RD	Gold Buckle	Santa Ana River	WIDEN FROM 2 TO 4 LANES (NOTE: RTIP#200212 WIDENS BRIDGE PORTION)	Exist Config: 2 lanes								√		
SB	L	HIGHLAND	4A07019		0	0.0	0.0	GREENSPOT RD	Santa Ana River	Bryant	CONSTRUCT NEW STREET, GREENSPOT RD TO CONNECT TO BRYANT FROM 0 TO 2 LANES WITHIN CITY LIMIT (INCLUDING BRIDGE)	Exist Config: 0 lanes								√		
SB	L	HIGHLAND	4A07044		0	0.0	0.0	GREENSPOT RD	Orange St	SR 30	WIDEN 5TH STREET FROM BOULDER AVENUE TO SR-30 FROM 2 TO 6 LANES (INCLUDING SR-30 UNDERCROSSING)	Exist Config: 2 lanes						√				
SB	L	HIGHLAND	4A07213		0	0.0	0.0	GREENSPOT RD	Santa Ana River	City Limit	WIDEN GREENSPOT RD FROM SANTA ANA RIVER TO CITY LIMIT	Exist Config: Deficient 2 lanes								√		
SB	L	HIGHLAND	4A07236		0	0.0	0.0	GREENSPOT RD	Orange St	Church St	WIDEN 5TH ST FROM ORANGE ST TO CHURCH ST	Exist Config: Deficient 4 lanes					√					
SB	L	HIGHLAND	4A07136		0	0.0	0.0	HIGHLAND AVE	Church St	Boulder Ave	WIDEN HIGHLAND AVE FROM CHURCH ST TO BOULDER AVE FROM 2 TO 4 LANES	Exist Config: 2 lanes								√		
SB	L	HIGHLAND	4A07258		0	0.0	0.0	HIGHLAND AVE	Olive St	800' W/O Victoria Ave	WIDEN HIGHLAND AVE FROM OLIVE ST TO 800' W/O VICTORIA AVE	Exist Config: Deficient 4 lanes								√		
SB	L	HIGHLAND	4A07280		0	0.0	0.0	HIGHLAND AVE	Boulder Ave	200' W/O Denair Ave	WIDEN HIGHLAND AVE FROM BOULDER AVE TO 200' W/O DENAIR AVE	Exist Config: Deficient 4 lanes								√		
SB	L	HIGHLAND	4A07231		0	0.0	0.0	LANKERSHIM AV	5th St	1200' n/o 9th St	WIDEN LANKERSHIM AV FROM 5TH ST TO 1200' N/O 9TH ST	Exist Config: Deficient 2 lanes								√		
SB	L	HIGHLAND	4A07275		0	0.0	0.0	PACIFIC ST	Cole St	Palm Ave	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes									√	
SB	L	HIGHLAND	4A07290		0	0.0	0.0	PACIFIC ST	Palm Ave	Church Ave	WIDEN PACIFIC AVE	Exist Config: Deficient 2 lanes									√	
SB	L	HIGHLAND	4A07364		0	0.0	0.0	PACIFIC ST	Orange St	West of Cole	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes									√	
SB	L	HIGHLAND	4A01340		0	0.0	0.0	PALM AVE	South City Limit	Baseline	WIDEN FROM 2 TO 4 LANES	Exist Config: 2 lanes								√		
SB	L	HIGHLAND	4A01389		0	0.0	0.0	PALM AVE	Baseline	Pacific Av	WIDEN FROM PALM AVE	Exist Config: Deficient 2 lanes								√		
SB	L	HIGHLAND	4A07323		0	0.0	0.0	PALM AVE	Pacific Ave	Atlantic Ave	WIDEN PALM AVE FROM PACIFIC ST TO ATLANTIC AVE FROM 2 LANES TO 4 LANES.	Exist Config: 2 lanes								√		
SB	L	HIGHLAND	200429	200429	0	0.0	0.0	SR-30	AT 5TH STREET		AT SR30 AND 5TH ST. - RAMP MODIFICATION - WIDENING RAMPS FROM 1-2 LANES AND ADD TURN LANES ON 5TH ST.	WIDEN RAMPS FROM 1 TO 2 LANES	√					√				
SB	L	HIGHLAND	4A1010	201184	0	0.0	0.0	STERLING AVE	3RD ST	5TH ST	WIDEN FROM 2 TO 4 LANES	(NOTE: FORMERLY PART OF 200852)								√		
SB	L	HIGHLAND	4A07078		0	0.0	0.0	STERLING AVE	S.City Limit	Pacific Ave	WIDEN STERLING AVE FROM S.CITY LIMIT TO PACIFIC AVE FROM 2 TO 4 LANES	Exist Config: Deficient 4 lanes								√		
SB	L	HIGHLAND	4A07142	201182	0	0.0	0.0	TIPPECANOE AVE	3rd St	9th St	WIDEN TIPPECANOE AVE FROM 3RD ST TO 9TH ST FROM 2 TO 4 LANES	Exist Config: 2 lanes								√		
SB	L	HIGHLAND	4A01341		0	0.0	0.0	VICTORIA AVE	3rd St	6th St	WIDEN VICTORIA AVE	Exist Config: Deficient 4 lanes				√						
SB	L	LOMA LINDA	SBD031295	SBD031295	0	0.0	0.0	BARTON RD	EAST CITY LIMITS	WEST CITY LIMITS	BARTON ROAD EAST CITY LIMITS TO WEST CITY LIMITS WIDEN FROM 4 LANES TO 6 LANES SPOT WIDENINGS	WIDEN FROM 4 TO 6 LANES	√						√			

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	LOMA LINDA	SBD31876	SBD31876	0	0.0	0.0	CALIFORNIA ST	BARTON ROAD	REDLANDS BLVD	CALIFORNIA STREET BARTON ROAD TO REDLANDS BOULEVARD WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√						√		
SB	L	LOMA LINDA	4A07002		0	0.0	0.0	EVANS ST. PHASE II	UPRR	Barton Rd.	NEW ROAD, 2 LANES EACH DIR	Exist Config: does not exist							√			
SB	L	LOMA LINDA	SBD031290	SBD031290	0	0.0	0.0	MOUNTAIN VIEW AVE	VAN LEUVAN	PROSPECT	MOUNTAIN VIEW AVENUE VAN LEUVAN TO PROSPECT WIDEN TWO EXISTING BRIDGES FROM 3 LANES TO 4 LANES	MOUNTAIN VIEW AVENUE VAN LEUVAN TO PROSPECT WIDEN TWO EXISTING BRIDGES FROM 3 LANES TO 4 LANES. PT 1: MT VIEW AVE, OVER UP RR & AMTRAK, 1.0 MI S/O I-10. PT 2: MT VIEW AVE, OVER SAN TIMOTEO CREEK, 0.9 MI S/O I-10. BRIDGE REHABILITATION OF A 3 LANE BRIDGE WIDENED TO A 4 LANE BRIDGE.	√	√		√						
SB	L	LOMA LINDA	SBD031296	SBD031296	0	0.0	0.0	REDLANDS BL	EAST CITY LIMITS	WEST CITY LIMITS	REDLANDS BOULEVARD EAST CITY LIMITS TO WEST CITY LIMITS WIDEN FROM 4 LANES TO 6 LANES	WIDEN FROM 4 TO 6 LANES	√						√			
SB	L	LOMA LINDA	4A07196		0	0.0	0.0	W. VAN LEUVEN ST.	Evans St.	Orange Grove St.	NEW ROAD, 1 LANES EACH DIR	Exist Config: does not exist						√				
SB	L	LOMA LINDA SPHERE	4A07245		0	0.0	0.0	BARTON RD	Loma Linda City Limits	California St	WIDEN BARTON RD FROM LOMA LINDA CITY LIMITS TO CALIFORNIA ST FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	MONTCLAIR	4A01183		0	0.0	0.0	MONTE VISTA AVE	San Bernardino St	Arrow Hwy	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: Existing varies between 2 to 3 lanes in each direction									√	
SB	L	MONTCLAIR	4A01184		0	0.0	0.0	SAN BERNARDINO ST	LA County Line	Benson Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lanes each direction									√	
SB	L	MONTCLAIR SPHERE	4A07294		0	0.0	0.0	BENSON AVE	Howard	n/State	WIDEN BENSON AVE FROM HOWARD ST TO STATE ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	MONTCLAIR SPHERE	4A07298		0	0.0	0.0	BENSON AVE	Phillips Blvd	n/ Howard	WIDEN BENSON AVE FROM PHILLIPS BLVD TO HOWARD ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	MONTCLAIR SPHERE	4A01266		0	0.0	0.0	CENTRAL AVE	Phillips Blvd	State St	WIDEN CENTRAL AVE FROM PHILLIPS BLVD TO STATE ST FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	MONTCLAIR SPHERE	4A07333		0	0.0	0.0	EAST END AVE	Phillips Blvd	Grand Av	WIDEN EAST END AV FROM PHILLIPS BLVD TO GRAND AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction										√
SB	L	MONTCLAIR SPHERE	4A07144		0	0.0	0.0	GRAND AVE	East End Rd	Ramona Ave	WIDEN GRAND AVE FROM EAST END RD TO RAMONA AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	MONTCLAIR SPHERE	4A07246		0	0.0	0.0	GRAND AVE	Greenwood Wy	Monte Vista	WIDEN GRAND AVE FROM GREENWOOD WY TO MONTE VISTA	Exist Config: 1 lane each direction								√		
SB	L	MONTCLAIR SPHERE	4A01276		0	0.0	0.0	MISSION BL	LA county line	Pipe Line	WIDEN MISSION BLVD FROM LA COUNTY LINE TO PIPE LINE FROM 2 TO 6 LANES	Exist Config: 1 lane each direction								√		
SB	L	MONTCLAIR SPHERE	4A07182		0	0.0	0.0	MISSION BL	Central	Benson	WIDEN MISSION BLVD FROM CENTRAL TO BENSON FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	MONTCLAIR SPHERE	4A07233		0	0.0	0.0	MISSION BL	Ramona	Fremont	WIDEN MISSION BLVD FROM RAMONA TO FREMONT FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	MONTCLAIR SPHERE	4A07202		0	0.0	0.0	MONTE VISTA AVE	Phillips Blvd	State St	WIDEN MONTE VISTA AVE FROM PHILLIPS BLVD TO STATE ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	MONTCLAIR SPHERE	4A07124		0	0.0	0.0	PHILLIPS BL	Roswell Ave	Yorba Ave	WIDEN PHILLIPS BLVD FROM ROSWELL AVE TO YORBA AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	MONTCLAIR SPHERE	4A07252		0	0.0	0.0	PHILLIPS BL	East End Ave	Roswell Ave	WIDEN PHILLIPS BLVD FROM EAST END AVE TO ROSWELL AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	MONTCLAIR SPHERE	4A07390		0	0.0	0.0	PHILLIPS BL	LA County Line	East End Ave	WIDEN PHILLIPS BLVD FROM LA COUNTY LINE TO EAST END AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	NEEDLES	4A0801	20040804	0	0.0	0.0	I-40/AZ 95 CONNECTOR	I-40 AT J ST	AZ 95 AT K ST	LOCAL STREET IMPROVEMENTS TO J ST, W. BROADWAY AVE, NEEDLES HWY, AND K ST, CONNECTING I-40 AND AZ 95	**Seg 1** - J St from I-40 off-ramps to W. Broadway Ave, widen from 2 to 4 lanes (2 each dir), add left turn lanes, signalize J St/W. Broadway **Seg 2** - W. Broadway from J St to Needles Hwy, provide striping & left turn lanes, signalize W. Broadway/Needles Hwy **Seg 3** - Needles Hwy from W. Broadway to No. K St, widen from 2 to 4 lanes (2 each dir), provide left turn lanes, signalize Needles Hwy/No. K St **Seg 4** - No. K St from Needles Hwy to AZ 95, widen from 2 to 4 lanes (2 each dir), provide left turn lanes, widen bridge from 2 to 4 lanes						√				
SB	L	ONTARIO	4A01185		0	0.0	0.0	4TH ST	Vineyard Av	Cucamonga Creek	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lanes each direction								√		
SB	L	ONTARIO	4A07302		0	0.0	0.0	4TH ST	Palmetto	San Antonio	WIDEN 4TH ST FROM PALMETTO TO SAN ANTONIO FROM 2 TO 4 LANES	Exist Config: 2 lanes each direction								√		
SB	L	ONTARIO	4A07311		0	0.0	0.0	4TH ST	Campus Av	Grove Av	WIDEN 4TH ST FROM CAMPUS AV TO GROVE AV FROM 2 TO 4 LANES	Exist Config: 2 lanes each direction								√		
SB	L	ONTARIO	4A01188		0	0.0	0.0	AIRPORT DR	Rochester Av	Wineville	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	200804	200804	0	0.0	0.0	SOUTH ARCHIBALD AVE	AT MISSION BLVD.		SOUTH ARCHIBALD AVE. GRADE SEPARATION (AT MISSION BLVD) CONSTRUCT A HIGHWAY AND RR GRADE SEPARTION AT EXISTING AT-GRADE CROSSING SOUTH OF ARCHIBALD AND THE UPPR LA LINE-PROJECT TO BUILD NEW FLY-OVER BRIDGE FOR RR - WIDENING FROM 2-6 LANES 3 LANES IN EACH DIRECTION AND LEFT AND RIGHT TURN LANES;DRAINAGE IMPROVMENTS	WIDEN FROM 2 TO 6 LANES	√						√			
SB	L	ONTARIO	4A01191		0	0.0	0.0	ARCHIBALD AVE	Jurupa Av	Mission Bl	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04189		0	0.0	0.0	ARCHIBALD AVE	Edison Av	SCL	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04190		0	0.0	0.0	ARCHIBALD AVE	Riverside Dr	Edison Av	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction								√		

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	ONTARIO	4A07277		0	0.0	0.0	ARCHIBALD AVE			CONSTRUCT A BRIDGE ON ARCHIBALD AVE OVER UPPER DEER CREEK	Exist Config: No crossing								√		
SB	L	ONTARIO	4A07278		0	0.0	0.0	ARCHIBALD AVE			CONSTRUCT A BRIDGE ON ARCHIBALD AVE OVER UPPER DEER CREEK SPILLWAY	Exist Config: No crossing								√		
SB	L	ONTARIO	4A07326		0	0.0	0.0	ARCHIBALD AVE			CONSTRUCT A BRIDGE ON ARCHIBALD AVE OVER LOWER DEER CREEK	Exist Config: No crossing								√		
SB	L	ONTARIO	4A04192		0	0.0	0.0	BELLGRAVE AVE	Merrill Ave	Milliken Ave (Hamner Ave)	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04193		0	0.0	0.0	CAMPUS AVE	Riverside Dr	Merrill Ave	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A07139		0	0.0	0.0	CAMPUS AVE	Francis	Holt	WIDEN CAMPUS FROM FRANCIS TO HOLT FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04194		0	0.0	0.0	CHINO AVE	Euclid Av	Milliken Bl	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04196		0	0.0	0.0	EDISON AV	Mill Creek	Milliken Bl	WIDEN FROM 1 TO 4 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04197		0	0.0	0.0	EDISON AV	Euclid Av	Walker Av	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04198		0	0.0	0.0	EDISON AV	Vineyard Av	Mill Creek	WIDEN FROM 1 TO 4 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04199		0	0.0	0.0	EDISON AV	Walker Av	Vineyard Av	WIDEN FROM 1 TO 4 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A07174		0	0.0	0.0	EIGHT ST			CONSTRUCT A BRIDGE ON EIGHT ST OVER CUCAMONGA CREEK	Exist Config: No crossing								√		
SB	L	ONTARIO	4A04200		0	0.0	0.0	EUCALYPTUS AVE	Euclid Av	Walker Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04201		0	0.0	0.0	EUCLID AVE	Riverside Dr	Merrill Av	WIDEN FROM 2 TO 4 LANES EACH DIR	Exist Config: 2 lanes each direction								√		
SB	L	ONTARIO	4A01203		0	0.0	0.0	FRANCIS ST	Benson Av	Mountain Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A07208		0	0.0	0.0	FRANCIS ST			CONSTRUCT A BRIDGE ON FRANCIS ST OVER CUCAMONGA CREEK	Exist Config: No crossing								√		
SB	L	ONTARIO	4A07227		0	0.0	0.0	FRANCIS ST			CONSTRUCT A BRIDGE ON FRANCIS ST OVER WEST CUCAMONGA CREEK	Exist Config: No crossing								√		
SB	L	ONTARIO	SBD59004	SBD59004	0	0.0	0.0	FRANCIS ST	BON VIEW AVENUE	GROVE	FRANCIS ST. FROM BON VIEW AVE TO GROVE WIDENING 2 TO 4 LANES (STORM DRAIN FROM BON VIEW TO PARCO)	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	ONTARIO	4A04206		0	0.0	0.0	GROVE AVE	Riverside Dr	Merrill Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04207		0	0.0	0.0	GROVE AVE	Airport Dr	Holt Blvd	WIDEN EXISTING GRADE SEPARATION FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lanes each direction								√		
SB	L	ONTARIO	SBD59006	SBD59006	0	0.0	0.0	GROVE AVE	STATE STREET	350' NO OF HOLT BLVD	GROVE AVENUE FROM STATE ST. TO 350' NORTH OF HOLT BLVD. WIDENING FROM 4 TO 6 LANES WIDENING RAILROAD BRIDGE ALSO (1,450'),LANDSCAPE RESTORATION, LEFT TURN LANES AT HOLT	WIDEN FROM 4 TO 6 LANES INCLUDES RAILROAD BRIDGE WIDENING	√	√				√				
SB	L	ONTARIO	4A04208		0	0.0	0.0	HAVEN AVE	Riverside Dr	Bellegrave Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	200404	200404	0	0.0	0.0	HOLT BL	BENSON AVENUE	VINEYARD AVENUE	HOLT BLVD CORRIDOR WIDENING FROM BENSON AVE. TO VINEYARD AVE. WIDEN ROAD FROM 4-6 LANES INCLUDING TRAFFIC SIGNAL MODIFICATIONS AND RESTRIPING	WIDEN FROM 4 TO 6 LANES	√	√					√			
SB	L	ONTARIO	4A01210	200404	0	0.0	0.0	HOLT BL	Benson Av	Vineyard Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lanes each direction								√		
SB	L	ONTARIO	4A07035		0	0.0	0.0	HOLT BL			CONSTRUCT A BRIDGE ON HOLD BLVD OVER WEST CUCAMONGA CREEK	Exist Config: No crossing								√		
SB	L	ONTARIO	4A07327		0	0.0	0.0	HOLT BL			CONSTRUCT A BRIDGE ON HOLT BLVD OVER CUCAMONGA CREEK	Exist Config: No crossing								√		
SB	L	ONTARIO	4A01212		0	0.0	0.0	INLAND EMPIRE BL	Vineyard Av	Archibald Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lanes each direction								√		
SB	L	ONTARIO	4A01213		0	0.0	0.0	JURUPA ST	Turner Av	Archibald Av	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04214		0	0.0	0.0	MERRILL AVE	Grove Ave	Milliken Bl (Hamner)	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04195		0	0.0	0.0	MILL CREEK	Riverside Dr	Bellegrave Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04215		0	0.0	0.0	MILLIKEN AV (HAMNER)	Edison Av	SCL	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04216		0	0.0	0.0	MILLIKEN AVE	Riverside Dr	Edison Av	WIDEN FROM 1 TO 4 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A07215		0	0.0	0.0	MISSION BL			CONSTRUCT A BRIDGE ON MISSION BLVD OVER WEST CUCAMONGA CREEK	Exist Config: No crossing								√		
SB	L	ONTARIO	4A07317		0	0.0	0.0	MISSION BL			CONSTRUCT A BRIDGE ON MISSION BLVD OVER CUCAMONGA CREEK	Exist Config: No crossing								√		
SB	L	ONTARIO	SBD031315	SBD031315	0	0.0	0.0	MISSION BL	GROVE	HAVEN	MISSION BOULEVARD GROVE TO HAVEN WIDEN FORM 4 LANES TO 6 LANES ,LANDSCAPED MEDIAN AND STORM DRAIN(3.3 MI) (T21-#60) SEG.1 ARCHIBALD TO HAVEN AND SEG.2- GROVE TO ARCHIBALD	WIDEN FROM 4 TO 6 LANES Note: chg from 2004 RTIP was "FROM BENSON TO MILLIKEN"	√	√					√			
SB	L	ONTARIO	4A04218		0	0.0	0.0	ONTARIO AVE / HELLMAN	Riverside Dr	Bellegrave Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A07138		0	0.0	0.0	PHILADELPHIA ST	Vineyard Av	Cucamonga Creek	WIDEN FROM 1 TO 2 LANES EACH DIR, INCL. BRIDGE OVER CUCAMONGA CREEK	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A07266		0	0.0	0.0	PHILADELPHIA ST	Campus Av	Grove Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04219		0	0.0	0.0	RIVERSIDE DR	Euclid Av	Milliken Bl	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A07267		0	0.0	0.0	RIVERSIDE DR			CONSTRUCT A BRIDGE RIVERSIDE DR OVER CUCAMONGA CREEK	Exist Config: No crossing									√	
SB	L	ONTARIO	4A04220		0	0.0	0.0	SCHAEFER AV	Euclid Av	Edison Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A07260		0	0.0	0.0	SIXTH ST			CONSTRUCT A BRIDGE ON SIXTH ST OVER CUCAMONGA CREEK	Exist Config: No crossing									√	

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	ONTARIO	200801	200801	0	0.0	0.0	STEWART ST	ANDERSON	CAMPUS	Stewart Street Widening from Anderson to Campus widening from 2-4 lanes	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	ONTARIO	4A01222		0	0.0	0.0	VINEYARD AV	4TH ST	I-10	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lanes each direction								√		
SB	L	ONTARIO	4A04223		0	0.0	0.0	VINEYARD AVE	Riverside Dr	Edison Av	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	ONTARIO	4A04224		0	0.0	0.0	WALKER AVE	Riverside Dr	SCL	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	RANCHO CUCAMONGA	200022	200022	0	0.0	0.0	6TH ST	HYSSOP DRIVE	2500' EASTERLY	6TH ST FROM HYSSOP DR TO 2500' EASTERLY - CONSTRUCT 2 LANES OF AN ULTIMATE 4 LANE ROAD	CONSTRUCT 2 LANE ROAD	√	√	√							
SB	L	RANCHO CUCAMONGA	SBD031323	SBD031323	0	0.0	0.0	ARCHIBALD AVE	HILLSIDE ROAD	SOUTH OF BANYON ROAD	ARCHIBALD AVENUE HILLSIDE ROAD TO SOUTH OF BANYON ROAD - WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	RANCHO CUCAMONGA	20020134	20020134	0	0.0	0.0	ARROW RTE	ETIWANDA AVENUE	EAST STREET	IN RANCHO CUCAMONGA - ON ARROW RTE. FROM ETIWANDA AVENUE TO EAST STREET - WIDEN FROM 2-4 LANES (3,200 FEET)	WIDEN FROM 2 TO 4 LANES	√	√					√			
SB	L	RANCHO CUCAMONGA	SBD031333	SBD031333	0	0.0	0.0	CARNELIAN ST	HILLSIDE ROAD	ALMOND STREET	CARNELIAN STREET HILLSIDE ROAD TO ALMOND STREET WIDEN FROM 2 LANES TO 4 LANES & REHABILITATION	WIDEN FROM 2 TO 4 LANES	√	√		√						
SB	L	RANCHO CUCAMONGA	200023	200023	0	0.0	0.0	CHERRY AVE	SOUTH CITY LIMITS	WILSON AVENUE	CHERRY AV FROM SOUTH CITY LIMITS TO WILSON AV - WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√				√				
SB	L	RANCHO CUCAMONGA	200024	200024	0	0.0	0.0	DAY CREEK BL	ROCHESTER AVENUE	FOOTHILL BLVD	DAY CREEK BL FROM ROCHESTER AV TO FOOTHILL BL - CONSTRUCT NEW 4 LANE ROAD	CONSTRUC NEW 4 LANE ROAD	√	√	√							
SB	L	RANCHO CUCAMONGA	200025	200025	0	0.0	0.0	DAY CREEK BL	FOOTHILL BLVD	BASELINE ROAD	DAY CREEK BL FROM FOOTHILL BL TO BASELINE RD - CONSTRUCT NEW 6 LANE ROAD	CONSTRUCT NEW 6 LANE ROAD	√	√	√							
SB	L	RANCHO CUCAMONGA	SBD031340	SBD031340	0	0.0	0.0	FOOTHILL BL	ROCHESTER AVENUE	I-15	FOOTHILL BOULEVARD ROCHESTER AVENUE TO INTERSTATE 15 WIDEN FROM 4 LANES TO 6 LANES, REHABILITATION AND SIGNALS	WIDEN FROM 4 TO 6 LANES	√	√	√							
SB	L	RANCHO CUCAMONGA	SBD41207	SBD41207	0	0.0	0.0	GROVE AVE	8TH	SAN BERNARDINO ROAD	GROVE AVE, 8TH TO SAN BERNARDINO RD WIDEN FROM 2-4 LANES, UPGRADE SIGNALS AND DRAINAGE.	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	RANCHO CUCAMONGA	SBD41208	SBD41208	0	0.0	0.0	GROVE AVE	SAN BERNARDINO ROAD	FOOTHILL BLVD	GROVE AVE, SAN BERNARDINO RD TO FOOTHILL BLVD. WIDEN FROM 2-4 LANES AND UPGRADE SIGNALS (700 FT.)	WIDEN FROM 2 - 4 LANES	√	√	√							
SB	L	RANCHO CUCAMONGA	SBD59009	SBD59009	0	0.0	0.0	HAVEN AVE	BASELINE ROAD	ROUTE 30	HAVEN AVE FROM BASELINE RD TO SR 30 (4,800 FT.) - WIDEN WEST SIDE FROM 2-3 LANES, DRAINAGE AND UPGRADE SIGNALS. CURRENTLY 3 LANES N/B AND 2 LANES S/B.	WIDEN WEST SIDE FROM 2-3 LANES	√	√	√							
SB	L	RANCHO CUCAMONGA	200029	200029	0	0.0	0.0	HERMOSA AVE	FOOTHILL BLVD	CHURCH STREET	HERMOSA AV FROM FOOTHILL BL TO CHURCH ST - WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	RANCHO CUCAMONGA	20020135	20020135	0	0.0	0.0	HERMOSA AVE	CHURCH	BASELINE AVENUE	HERMOSA AVENUE FROM CHURCH TO BASELINE AVE. (3000 FT.) - WIDEN FROM 2-4 LANES, REHAB. AND STORM DRAIN (STORM DRAIN COMPLETED 8/03)	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	RANCHO CUCAMONGA	20020136	20020136	0	0.0	0.0	HERMOSA AVE	BASELINE ROAD	ROUTE 30/210	ON HERMOSA FROM BASELINE TO ROUTE 30/210 (5400 FT) - WIDEN FROM 2-4 LANES AND CONSTRUCT STORM DRAINS	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	RANCHO CUCAMONGA	200031	200031	0	0.0	0.0	MILLIKEN AVE	BANYON STREET	WILSON AVENUE	MILLIKEN AV FROM BANYAN ST TO WILSON AV - CONSTRUCT NEW 4 LANE STREET (PART OF PROJECT NOW UNDER CONSTRUCTION)	CONSTRUCT NEW 4 LANE STREET	√	√	√							
SB	L	RANCHO CUCAMONGA	200032	200032	0	0.0	0.0	WILSON AVE	AMETHYST STREET	HAVEN AVENUE	WILSON AV FROM AMETHYST ST TO HAVEN AV - WIDEN PORTIONS FROM 2 TO 4 LANES	PRESENTLY LANES ARE 2 LANES IN SOME SECTION 4 LANES IN OTHERS. THIS MAKE THEM 4 LANES THROUGHOUT SEGMENT.	√	√		√						
SB	L	RANCHO CUCAMONGA	200033	200033	0	0.0	0.0	WILSON AVE	HAVEN AVENUE	CANISTEL AVENUE	WILSON AV FROM HAVEN AV TO CANISTEL AV - WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	RANCHO CUCAMONGA	200034	200034	0	0.0	0.0	WILSON AVE	ETIWANDA AVENUE	WARDMAN BULLOCK ROAD	WILSON AV FROM ETIWANDA AV TO WARDMAN BULLOCK RD - CONSTRUCT NEW 4 LANE DIVIDED STREET	CONSTRUCT NEW 4 LANE DIVIDED STREET	√	√				√				
SB	L	RANCHO CUCAMONGA	4A1011		0	0.0	0.0	YOUNGS CANYON RD	SAN SEVAINE RD	CHERRY AV	CONSTRUCT NEW 4 LANE DIVIDED STREET								√			
SB	L	REDLANDS	200419	200419	0	0.0	0.0	ALABAMA ST	NORTH CITY LIMITS	3000' NORTH OF PALMETTO	ALABAMA STREET WIDENING - WIDEN FROM 2-4 LANES FROM NORTH CITY LIMITS TO 3,000 FT. NORTH PALMETTO	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	REDLANDS	4A01237		0	0.0	0.0	ALABAMA ST	3rd St	San Bernardino Av	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: RTIP#SBD31719 WIDENS BRIDGE AT SANTA ANA RIVER)	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS	4A07017		0	0.0	0.0	ALABAMA ST	Lugonia Av	Barton Rd	WIDEN ALABAMA FROM LUGONIA AVE TO BARTON RD FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	REDLANDS	SBD31719	SBD31719	0	0.0	0.0	ALABAMA ST	SANTA ANA RIVER		ALABAMA STREET AT SANTA ANA RIVER RECONSTRUCT ALL-WEATHER CROSSING OF RIVER, WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	REDLANDS	4A04238		0	0.0	0.0	CALIFORNIA ST	Lugonia Av	San Bernardino Av	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction					√					
SB	L	REDLANDS	4A07184		0	0.0	0.0	CALIFORNIA ST	Redlands Bl	I-10	WIDEN CALIFORNIA ST FROM REDLANDS BL TO I-10 FROM 5 TO 6 LANES	Exist Config: 2 lanes each direction					√					

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	REDLANDS	SBD59016	SBD59016	0	0.0	0.0	CALIFORNIA ST	LUGONIA	SAN BERNARDINO AVENUE	CALIFORNIA STREET FROM LUGONIA TO SAN BERNARDINO AVENUE. WIDEN FROM 2 LANES TO 6 LANES (3 IN EACH DIRECTION) WITH MEDIAN ISLAND (1/2 MILE)	WIDEN FROM 2 TO 6 LANES (3 EA DIR)	√	√	√							
SB	L	REDLANDS	4A01239		0	0.0	0.0	CHURCH ST	Colton Av	Redlands Bl	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: RTIP#SBD59012 WIDENS FROM COLTON TO CLARK)	Exist Config: 1 lane each direction						√				
SB	L	REDLANDS	SBD59012	SBD59012	0	0.0	0.0	CHURCH ST	CLARK STREET	COLTON AVENUE	CHURCH ST. FROM CLARK STREET TO COLTON AVENUE WIDEN FROM 2-4 LANES (0.6 MILES)	WIDEN FROM 2 TO 4 LANES	√	√		√						
SB	L	REDLANDS	4A04240		0	0.0	0.0	CITRUS AVE	Dearborn St	Wabash Av	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: RTIP#SBD58044 WIDENS FROM AUBURN CT TO WABASH)	Exist Config: 1 lane each direction						√				
SB	L	REDLANDS	SBD58044	SBD58044	0	0.0	0.0	CITRUS AVE	AUBURN CT.	WABASH AVENUE	CITRUS AVENUE AUBURN CT. TO WABASH AVENUE WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	REDLANDS	4A01241		0	0.0	0.0	CYPRESS AVE	I-10	Citrus Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS	4A01243		0	0.0	0.0	FORD ST	5th Ave	I-10	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS	4A01244		0	0.0	0.0	HIGHLAND AVE	Redlands Bl	Ford St	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction									√	
SB	L	REDLANDS	4A07261		0	0.0	0.0	HIGHLAND AVE	Cajon St	Redlands Bl	WIDEN HIGHLAND FROM CAJON TO REDLANDS BL FROM 3 TO 4 LANES	Exist Config: 1 lane each direction										√
SB	L	REDLANDS	4A01245		0	0.0	0.0	LIVE OAK CYN RD	San Timoteo Cyn Rd	East Clty Limits	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction									√	
SB	L	REDLANDS	4A01246		0	0.0	0.0	LUGONIA AVE	Tenessee St	Orange St	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS	SBD59014	SBD59014	0	0.0	0.0	MOUNTAIN VIEW AVE	LU GONIA AVENUE	SAN BERNARDINO	MOUNTAIN VIEW AVENUE FROM LUGONIA AVENUE TO SAN BERNARDINO WIDEN FROM 1 LANE TO 2 LANES FOR NORTHBOUND TRAFFIC (0.4 MILES)	WIDEN FROM 1 TO 2 LANES NORTHBOUND	√	√	√							
SB	L	REDLANDS	200420	200420	0	0.0	0.0	ORANGE ST	NORTH CITY LIMITS	RIVERVIEW DRIVE	ORANGE STREET WIDENING - FROM NORTH CITY LIMITS TO RIVERVIEW DRIVE - WIDEN STREET FROM 2-4 LANES	WIDEN STREET FROM 2 TO 4 LANES	√							√		
SB	L	REDLANDS	4A01247		0	0.0	0.0	ORANGE ST	N. City limits	Pioneer Av	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: RTIP#SBD31718 WIDENS BRIDGE AT SANTA ANA RIVER)	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS	SBD31718	SBD31718	0	0.0	0.0	ORANGE ST	AT SANTA ANA RIVER		ORANGE STREET AT SANTA ANA RIVER RECONSTRUCT ALL-WEATHER CROSSING OF RIVER, WIDEN FROM 2 TO 4 LANES	WIDEN BRIDGE FROM 2 TO 4 LANES	√	√	√							
SB	L	REDLANDS	4A01248	201113	0	0.0	0.0	ORANGE ST	San Bernardino Av	Lugonia Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS	4A07054		0	0.0	0.0	ORANGE ST	Colton Av	Lugonia Av	WIDEN FROM 1 TO 2 LANES EACH DIR - CALTRANS (STATE ROUTE 38)	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS	4A01249		0	0.0	0.0	REDLANDS BL	West City Limits	Colton Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lanes each direction									√	
SB	L	REDLANDS	4A01250		0	0.0	0.0	SAN BERNARDINO AVE	Church St	Wabash Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS	4A01252		0	0.0	0.0	SAN BERNARDINO AVE	Route 30	Orange St	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction						√				
SB	L	REDLANDS	4A01254		0	0.0	0.0	SAN TIMOTEO CYN RD	RR CROSSING	LIVE OAK CYN RD	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction									√	
SB	L	REDLANDS	200035	200035	0	0.0	0.0	WABASH AVE	5TH STREET	I10	WABASH AV FROM 5TH ST TO I-10 - CONSTRUCT NEW 2 LANE STREET TO I-10 TO MATCH ON AND OFF RAMPS-CONSTRUCT MISSING LINK (2 LANE IN EACH DIRECTION)-1 MILE	CONSTRUCT NEW 2 LANE STREET TO I-10	√	√					√			
SB	L	REDLANDS SPHERE	4A07108		0	0.0	0.0	COLTON AVE	Wabash Av	Crafton Av	WIDEN COLTON AV FROM WABASH AV TO CRAFTON AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07028		0	0.0	0.0	CRAFTON HILLS PKWY	WABASH AVE	OVERCREST/TENNESSEE	PAVE DIRT ROAD, 1 LANE EACH DIR	Exist Config: Dirt Road								√		
SB	L	REDLANDS SPHERE	4A01262A		0	0.0	0.0	FIFTH AVE	Wabash Ave	Crafton Ave	WIDEN FIFTH AV FROM WABASH AV TO CRAFTON AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07162		0	0.0	0.0	FLORIDA ST	Greenspot Rd	Garnet St	WIDEN FLORIDA ST FROM GREENSPOT RD TO GARNET ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07169		0	0.0	0.0	GARNET ST	Newport	Florida St	WIDEN GARNET ST FROM NEWPORT AV TO FLORIDA ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07314		0	0.0	0.0	GARNET ST	SR 38	Newport Ave	WIDEN GARNET ST FROM SR 38 TO NEWPORT AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07320		0	0.0	0.0	GARNET ST	Mentone Av	SR 38	WIDEN GARNET ST FROM MENTONE AV TO SR 38 FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07352		0	0.0	0.0	GARNET ST	.08 s/o Mentone Ave	Mentone Ave	WIDEN GARNET ST FROM .08 M S/O MENTONE AV TO MENTONE AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07295		0	0.0	0.0	GREENSPOT RD	.19 m n/o Florida St	Florida St	WIDEN GREENSPOT RD FROM .19 M N/O FLORIDA ST TO FLORIDA ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07240		0	0.0	0.0	SAN BERNARDINO AVE	Wabash Ave	Opal Ave	WIDEN SAN BERNARDINO AV FROM WABASH AV TO OPAL AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07235		0	0.0	0.0	WABASH AVE	.30 m s/o Seventh St	.13 m n/o Seventh St	WIDEN WABASH AV FROM .30 M S/O SEVENTH ST TO .13M N/O SEVENTH ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07253		0	0.0	0.0	WABASH AVE	Colton Av	SR 38	WIDEN WABASH AV FROM COLTON AV TO SR 38 FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07254		0	0.0	0.0	WABASH AVE	SR 38	San Bernardino Ave	WIDEN WABASH AV FROM SR 38 TO SAN BERNARDINO AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	REDLANDS SPHERE	4A07321		0	0.0	0.0	WABASH AVE	6th Av	5th Av	WIDEN WABASH AV FROM 6TH AV TO 5TH AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	REDLANDS SPHERE	4A07381		0	0.0	0.0	WABASH AVE	Redlands City limits	I-10	WIDEN WABASH AV FROM REDLANDS CITY LIMITS TO I-10 FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO	4A01255		0	0.0	0.0	AYALA DR	Highland Av	Riverside Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config:								√		
SB	L	RIALTO	SBD031361	SBD031361	0	0.0	0.0	AYALA DR	BASELINE ROAD	SR-210	AYALA DRIVE BASELINE ROAD TO SR-210 WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√				√				
SB	L	RIALTO	4A07121		0	0.0	0.0	BASELINE RD	West City Limits	Ayala/Cedar	WIDEN AND RECONSTRUCT BASELINE FROM WEST CITY LIMITS TO AYALA DR FROM 2 TO 4 LANES	Exist Config:										√
SB	L	RIALTO	4A01256	2011121	0	0.0	0.0	CACTUS AVE	VALLEY	WALNUT	WIDEN FROM 2 TO 6 LANES (3 LANES EACH DIR)	Exist Config:							√			
SB	L	RIALTO	4A1012	2011123	0	0.0	0.0	FOOTHILL BL	WEST CITY LIMITS	EAST CITY LIMITS	WIDEN FROM 2 TO 6 LANES (3 EACH DIR)								√			
SB	L	RIALTO	4A07120		0	0.0	0.0	MERRILL AVE	West City Limits	Riverside	WIDEN MERRILL AVE FROM WEST CITY LIMITS TO RIVERSIDE FROM 2 TO 4 LANES	Exist Config:										√
SB	L	RIALTO	2002170	2002170	0	0.0	0.0	PEPPER AVE	FOOTHILL BLVD	SR-210	PEPPER AVE: FOOTHILL BLVD TO SR-210 -- WIDEN EXISTING 2 LANES TO 6 LANES (3 EACH DIR)	WIDEN FROM 2 TO 6 LANES (3 EA. DIR).	√					√				
SB	L	RIALTO	4A07068		0	0.0	0.0	PEPPER AVE	Etiwanda Av	SR-210	WIDEN PEPPER AVE FROM FOOTHILL BLVD TO SR-210 FROM 3 TO 6 LANES	Exist Config:										√
SB	L	RIALTO	4A07265		0	0.0	0.0	PEPPER AVE	Rialto	Foothill	WIDEN PEPPER AVE FROM RIALTO AVE TO FOOTHILL BLVD FROM 2 TO 4 LANES	Exist Config:										√
SB	L	RIALTO	4A07163		0	0.0	0.0	RIALTO AVE	West City Limits	Linden Av	WIDEN RIALTO AVE FROM WEST CITY LIMITS TO CACTUS AVE FROM 2 TO 4 LANES	Exist Config:										√
SB	L	RIALTO	4A07199		0	0.0	0.0	RIALTO AVE	Riverside	East City Limits	WIDEN RIALTO AVE FROM RIVERSIDE AVE TO EAST CITY LIMITS FROM 2 TO 4 LANES	Exist Config:										√
SB	L	RIALTO	4A07237		0	0.0	0.0	RIVERSIDE	Locust	Cedar	WIDEN RIVERSIDE AVE FROM LOCUST AVE TO CEDAR AVE FROM 3 TO 4 LANES	Exist Config:										√
SB	L	RIALTO	200603	200603	0	0.0	0.0	RIVERSIDE AVE	I-10	SLOVER AVENUE	RIVERSIDE AVE. SOUTH OF I-10 BETWEEN I-10 AND SLOVER AVE - RAILROAD BRIDGE MODIFICATION FROM 4-8 LANES	WIDEN FROM 4 TO 8 LANES	√					√				
SB	L	RIALTO	4A01257		0	0.0	0.0	RIVERSIDE AVE	Cactus Av	Casmalia St	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config:								√		
SB	L	RIALTO	4A01258		0	0.0	0.0	RIVERSIDE AVE	South City Limit	Slover Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config:									√	
SB	L	RIALTO	4A01259		0	0.0	0.0	RIVERSIDE AVE	Valley Bl	n/o Slover Av	WIDEN FROM 2 TO 4 LANES EACH DIR (NOTE: OVERLAPS RTIP#SBD31808)	Exist Config:					√					
SB	L	RIALTO	4A07101		0	0.0	0.0	SAN BERNARDINO AVE	West City Limits	East City Limits	WIDEN SAN BERNARDINO FROM WEST CITY LIMITS TO EAST CITY LIMITS FROM 2 TO 4 LANES	Exist Config:										√
SB	L	RIALTO	4A01260		0	0.0	0.0	SLOVER AV	Cactus Av	Riverside Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config:								√		
SB	L	RIALTO	4A01261		0	0.0	0.0	VALLEY BL	Spruce Av	Sycamore Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config:								√		
SB	L	RIALTO SPHERE	4A07126		0	0.0	0.0	ALDER AVE	Jurupa	N/ Slover	WIDEN ALDER AVE FROM JURUPA TO N/O SLOVER AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07262		0	0.0	0.0	ALDER AVE	Slover	N 0023M	WIDEN ALDER AVE FROM SLOVER AVE TO .23M NORTH FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07322		0	0.0	0.0	ALDER AVE	Jurupa Ave	N .12M	WIDEN ALDER AVE FROM JURUPA AVE TO .12M NORTH FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07241		0	0.0	0.0	BLOOMINGTON AVE	Cedar	Larch	WIDEN BLOOMINGTON AVE FROM CEDAR TO LARCH FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07087		0	0.0	0.0	EL RIVINO RD	Cedar Av	Agua Mansa Rd	WIDEN EL RIVINO RD FROM CEDAR AV TO AGUA MANSA RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07036		0	0.0	0.0	GLEN HELEN PKWY	Lytle Creek Rd	I-15	WIDEN GLEN HELEN PKWY FROM LYTLE CREED RD TO I-15 FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07111		0	0.0	0.0	JURUPA AVE	Cedar Ave	Lilac Ave	WIDEN JURUPA AVE FROM CEDAR AVE TO LILAC AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07165		0	0.0	0.0	JURUPA AVE	Locust Ave	Cedar Ave	WIDEN JURUPA AVE FROM LOCUST AVE TO CEDAR AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07250		0	0.0	0.0	JURUPA AVE	Tamarind	Alder	WIDEN JURUPA AVE FROM TAMARIND AVE TO ALDER AVE FROM 2 TO 6 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07299		0	0.0	0.0	JURUPA AVE	Lilac Ave	Willow Ave	WIDEN JURUPA AVE FROM LILAC AVE TO WILLOW AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07183		0	0.0	0.0	LOCUST AVE	Jurupa Av	Santa Ana Av	WIDEN LOCUST AVE FROM JURUPA AVE TO SANTA ANA AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07188		0	0.0	0.0	LOCUST AVE	San Bernardino Ave	Randall Ave	WIDEN LOCUST AVE FROM SAN BERNARDINO AVE TO RANDALL AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07189		0	0.0	0.0	LOCUST AVE	Valley Blvd	San Bernardino Ave	WIDEN LOCUST AVE FROM VALLEY BLVD TO SAN BERNARDINO AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07193		0	0.0	0.0	LOCUST AVE	Santa Ana Av	Slover Ave	WIDEN LOCUST AVE FROM SANTA ANA AVE TO SLOVER AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07315		0	0.0	0.0	LOCUST AVE	Seventh St	Eleventh St	WIDEN LOCUST AVE FROM SEVENTH ST TO ELEVENTH ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07132		0	0.0	0.0	SANTA ANA AVE	Cedar Ave	Cactus Ave	WIDEN SANTA ANA AVE FROM CEDAR AVE TO CACTUS AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A07153		0	0.0	0.0	SANTA ANA AVE	Tamarind	Locust	WIDEN SANTA ANA AVE FROM TAMARIND TO LOCUST AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	RIALTO SPHERE	4A07159		0	0.0	0.0	SANTA ANA AVE	Locust	Cedar	WIDEN SANTA ANA AVE FROM LOCUST AVE TO CEDAR AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	RIALTO SPHERE	4A01284B		0	0.0	0.0	SIERRA AVE	I-15	Lytle Creek	WIDEN SIERRA AVE FROM I-15 TO LYTLE CREED RD FROM 3 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY	200839	200839	0	0.0	0.0	5TH ST	WABASH AVE	CRAFTON AVE	5TH STREET FROM WABASH AVE. TO CRAFTON AVE. (1 MILE) - WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200818	200818	0	0.0	0.0	ALDER AVEN	JURUPA AVE	03. MILES N. SLOVER AVE	ALDER AVE. -JURUPA AVE. TO 0.03 N. SLOVER AVE (1.25 MILES)- WIDEN 2-4 LANES (FROM I-10 BRIDGE/APPROACH SOUTH)(NOT PART OFTHE I/C PROJECT)	WIDEN 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200415		0	0.0	0.0	AMBOY RD	Ironage Rd	National Trails Hwy	RECONSTRUCT ROAD, 1 LANE EACH DIR	Exist Config: 1 lane each direction			√							
SB	L	SAN BERNARDINO COUNTY	200810	200810	0	0.0	0.0	BAKER BLVD BRIDGE	105' E/O MOJAVE FLOOD CHANNEL		BAKER BLVD. BRIDGE- 150' E/O MOJAVE FLOOD CHANNEL-REPLACING EXISTING BRIDGE WITH 2 LANE TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200812	200812	0	0.0	0.0	BEAR VALLEY	JOSHUA ROAD	SH-118	BEAR VALLEY CUTOFF FROM JOSHUA RD. TO SH18. WIDEN FROM 2 TO 6 LANES	WIDEN FROM 2 TO 6 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200819	200819	0	0.0	0.0	BLOOMINGTON AVE	CEDAR AVE	LARCH	BLOOMINGTON AVE. FROM CEDAR AVE. TO 0.09 MILES N/E OF LARCH (.30 MILES) - WIDEN FROM 4-6 LANES	WIDEN FROM 4 TO 6 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200813	200813	0	0.0	0.0	CAUGHLIN ROAD	PHELAN ROAD	SMOKETREE ROAD	CAUGHLIN RD. FROM PHELAN RD. TO SMOKETREE RD. PAVE AND WIDEN DIRT RD. FROM 2-4 LANES	WIDEN DIRT ROAD FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200409	200409	0	0.0	0.0	CHERRY AVE	AT SCRRA RR CROSSING		CHERRY AVE. AT SCRRA RR CROSSING - WIDEN BRIDGE FROM 4-6 LANES ON CHERRY OVER RR CROSSING (FROM MERRILL TO WHITTRAM)	WIDEN BRIDGE FROM 4 TO 6 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200410	200410	0	0.0	0.0	CHERRY AVE	WHITTRAM	FOOTHILL BLVD	CHERRY AVE. WIDENING FROM WHITTRAM TO FOOTHILL BLVD. -WIDEN 4-6 LANES	WIDEN FROM 4 TO 6 LANES	√					√				
SB	L	SAN BERNARDINO COUNTY	200840	200840	0	0.0	0.0	CRAFTON HILLS PARKWAY	WABASH AVE	TENNESSEE	CRAFTON HILLS PARKWAY FROM WABASH TO TENNESSEE (1 MILE)-CONSTRUCT A NEW 2 LANE PAVED ROAD	CONSTRUCT A NEW 2 LANE PAVED ROAD	√							√		
SB	L	SAN BERNARDINO COUNTY	200408	200408	0	0.0	0.0	CUMBERLAND DR	SH 18	CUMBERLAND DRIVE	CUMBERLAND DRIVE EXTENSION - SH 18 NORTH TO CUMBERLAND DRIVE -PAVE NEW ROAD - 1 LANE IN EACH DIRECTION	PAVE NEW ROAD, 1 LANE EACH DIR	√							√		
SB	L	SAN BERNARDINO COUNTY	4A07130		0	0.0	0.0	DALEY CANYON	AT SH-18		DALEY CANYON AT SH 18 - INTERSECTION IMPROVEMENTS	Exist Config: T intersection to SH 18								√		
SB	L	San Bernardino County	200414	200414	0	0	0	Duncan Road	Oasis Rd	Baldy Mesa	ON DUNCAN ROAD FROM OASIS EAST TO BALDY MESA PAVE DIRT ROADS 1 LANE IN EACH DIRECTION INCLUDING STOP SIGNS AT RR CROSSING	Pave dirt road 1 lane in each dir					√					
SB	L	SAN BERNARDINO COUNTY	4A01270		0	0.0	0.0	EL MIRAGE RD	Koala Rd	LA County Line	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: #4A01004 IN ADELANTO WIDENS FROM RICHARDSON TO US-395 TO 4 LANES EACH DIR IN 2015)	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY	200831	200831	0	0.0	0.0	EUCLID AVE	24TH ST	MOUNTAIN AVE	EUCLID AVE. FROM 24TH ST. TO MOUNTAIN AVE. (1 MILE) WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	4A01271		0	0.0	0.0	FORT IRWIN RD	I-15	Ft Irwin Boundary	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction					√					
SB	L	SAN BERNARDINO COUNTY	SBD59027	SBD59027	0	0.0	0.0	FT IRWIN RD	I-15	TO FT IRWIN BOUNDARY	FT IRWIN RD: I-15 TO FT IRWIN BOUNDARY-REHAB EXISTING RDWY(22.46 MILES), WIDEN SHOULDERS,RELOCATE UTILITIES,ADD LEFT/RIGHT TURN LANES,CONSTRUCT 5 PASSING LANES, 1 ACCELERATION LANE	CONSTRUCT 5 PASSING LANES AND 1 ACCELERATION LANE (22.46 MILES)	√	√	√							
SB	L	SAN BERNARDINO COUNTY	200619	200619	0	0.0	0.0	GLEN HELEN PKWY	FROM 0.2 MILES WEST OF CAJON CREEK	0.2 MILES EAST OF CAJON CREEK	GLEN HELEN PARKWAY - FROM 0.2 MILES WEST OF CAJON CREEK TO 0.2 MILES EAST OF CAJON CREEK-REPLACE 36' WIDE 48' LONG 2 LN BRIDGE OVER CAJON CREEK W/ 64', 526'LONG 4 LN BRIDGE		√						√			
SB	L	SAN BERNARDINO COUNTY	200841	200841	0	0.0	0.0	HATCHERY LANE	SH-38	STATE LANE	HATCHERY LANE FROM SH 38 TO STATE LANE (0.7 MILES) PAVING DIRT ROAD CURRENTLY 2 LANE TO 4 LANE PAVED	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200407	200407	0	0.0	0.0	LANDERS RD			FLAMINGO HEIGHTS LANDERS ROAD IMPROVEMTS-SH 247 PIPES WASH NORTH TO JOHNSON VALLEY-SHOULDER WIDENING TO ACCOMMODATE TURN POCKETS AT FOUR INTERSECTIONS		√					√				
SB	L	SAN BERNARDINO COUNTY	200820	200820	0	0.0	0.0	LOCUST AVE	VALLEY BLVD	RANDALL AVE	ON LOCUST AVE. FROM VALLEY BLVD TO RANDALL AVE. (1 MILE)- WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200821	200821	0	0.0	0.0	LOCUST AVE	7TH	SLOVER	LOCUST AVE. FROM 7TH ST. TO SLOVER AVE. (1.13 MILES) WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	4A07131		0	0.0	0.0	MIDWAY AVE	in San Bernardino County		PAVE DIRT ROAD 1 LANE IN EACH DIRECTION	Exist Config: Dirt Road between SH 18 & SH 247								√		

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	SAN BERNARDINO COUNTY	200857	200857	0	0.0	0.0	MONTE VISTA AVE	PHILLIPS BLVD	MISSION BLVD	MONTE VISTA AVE. FROM PHILLIPS BLVD. TO MISSION BLVD (0.5 MILES)-WIDENING FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200832	200832	0	0.0	0.0	MOUNTAIN AVE	23RD ST	LA COUNTY LINE	MOUNTAIN AVE. FROM 23RD ST. TO LA COUNTY LINE (3 MILES)-WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200814	200814	0	0.0	0.0	MUSCATEL ST	VERBENA AVE	HERPERIA CITY LIMITS	MUSCATEL ST. -VERBENA AVE. TO HESPERIA CITY LIMITS- PAVE AND STRIPE FOR 2 LANES (1 IN EACH DIRECTION)	STRIPE FOR 2 LANES - 1 EACH DIRECTION	√							√		
SB	L	SAN BERNARDINO COUNTY	20040209	20040209	0	0.0	0.0	NATIONAL TRAILS HWY			NATL TRAILS HIWAY FROM BRYMAN RD S/O MORNING GLORY ST. TO BRYMAN TO N O MARIGOLD-WIDEN EXISTG 2 LN RD FOR PASSING LANE, INCL TRANSITIONS - (CO W/#200106)		√	√					√			
SB	L	SAN BERNARDINO COUNTY	4A07020		0	0.0	0.0	NATIONAL TRAILS HWY	in San Bernardino County		SAFETY UPGRADE	Exist Config: I lane in each direction								√		
SB	L	SAN BERNARDINO COUNTY	SBD031426	SBD031426	0	0.0	0.0	NEEDLES HWY	N STREET	NEVADA STATE LINE	NEEDLES HIGHWAY FROM 'N' STREET TO NEVADA STATE LINE-REALIGN, REHABILITATE, WIDEN SHOULDERS, TURN LANES, PASSING LANES, AND ACCELERATION LANES (1 LANE IN EACH DIR.) RELOCATE UTIL.		√						√			
SB	L	SAN BERNARDINO COUNTY	200411		0	0.0	0.0	NIELSON RD	Beekley	Malpaso	PAVE DIRT ROAD, 1 LANE EACH DIR	Exist Config: Dirt Road			√							
SB	L	SAN BERNARDINO COUNTY	200822	200822	0	0.0	0.0	OLIVE STREET	0.07 WEST OF JACKSON	0.03 MILES WEST OF RANCHO AVE	OLIVE STREET FROM 0.07 MILES WEST OF JACKSON TO 0.03 MILES WEST OF RANCHO AVE. (.46 MILES) WIDEN FROM 2-4 LANES BETWEEN THE UNDERPASS OF THE BNSF TRACTS TO COLTON CL	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SANBAG / SAN BERNARDINO COUNTY	200850	200850	0	0.0	0.0	PALM AVE	APPROX 530' S/O I-215/PALM AVE	APPROX. 1450' S/O CAJON BLVD	PALM AVE. GRADE SEPARATION, WIDEN FROM 2-4 LANES (REFER TO MODELING COMMENTS)	WIDEN FROM 2 TO 4 LANES THE PALM AVE. AT-GRADE CROSSING IS SHARED BETWEEN THE COUNTY AND THE CITY OF SAN BERNARDINO. THE AT-GRADE CROSSING IS AT THE APEX OF A "T" INTERSECTION WITH CAJON BLVD. THE PROPOSED PROJECT WILL DESIGN, ACQUIRE row AND CONSTRUCT A GRADE SEPARATION WITH FOUR LANES	√						√			
SB	L	SAN BERNARDINO COUNTY	200842	200842	0	0.0	0.0	PARK DRIVE	JUNIPER AVE	HESS BLVD	PARK DRIVE FROM JUNIPER AVE. TO HESS BLVD. (0.25 MILES) PAVING DIRT ROAD - 2 LANES (1 IN EACH DIRECTION)	NEW ROAD 1 LANE IN EACH DIRECTION	√							√		
SB	L	SAN BERNARDINO COUNTY	4A01277		0	0.0	0.0	PHELAN RD	Baldy Mesa Rd	Hesperia W. City Limit	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lanes each direction									√	
SB	L	SAN BERNARDINO COUNTY	4A01278		0	0.0	0.0	PHELAN RD	Sheep Creek Rd	Baldy Mesa Rd	WIDEN FROM 1 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY	200854	200854	0	0.0	0.0	PHILADELPHIA ST	LA COUNTY LINE	TO 0.13 MILES WEST OF MONTE VISTA	PHILADELPHIA STREET FROM LA COUNTY LINE TO 0.13M WEST OF MONTE VISTA (.87 MILES) WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200827	200827	0	0.0	0.0	PIPELINE AVE	0.04 MILES N OF PHILADELPHIA AVE	PHILLIPS	PIPELINE AVE-0.04 N. OR PHILADELPHIA AVE. TO PHILLIPS (.078 MILES) WIDEN 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200829	200829	0	0.0	0.0	PIPELINE AVE	CHINO AVE NORTH	0.28 MILES SOUTH WANUT	PIPELINE AVE. FROM CHINO AVE. NORTH TO 0.28 MILES SOUTH WALNUT (.60 MILES) WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200855	200855	0	0.0	0.0	RAMONA AVE	FROM1.03 MILES N/O PHILADELPHIA	PHILLIPS BLVD	RAMONA AVE. FROM 0.03 MILES N/O PHILADELPHIA TO PHILLIPS BLVD. (.078 MILES) WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	San Bernardino County	200815	200815	0	0	0	Ranchero St	0.3 Miles E/O Mariposa	Hesperia County Line	RANCHERO ST. FROM .3 M E/O MARIPOSA TO HESPERIA CL (3 MILES)-WIDEN 2-4 LANES	Widen 2 to 4 lanes							√			
SB	L	SAN BERNARDINO COUNTY	200843	200843	0	0.0	0.0	RECHE CANYON RD			RECHE CANYON RD. FROM 1.20 MILES OF S. BARTON ROAD TO 0.42 MILES SOUTH OF BARTON RD (.078 MILES)-WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	SAN BERNARDINO COUNTY	200816	200816	0	0.0	0.0	ROCK SPRINGS ROAD	0.25 MI. E/O GLENDALE AVE	KIOWA	ROCK SPRINGS RD. FROM 0.25 MI. E/O GLENDALE AVE. TO KIOWA (1.86 MILES) WIDEN FROM 2-4 LANES	WIDEN 2 TO 4 LANES	√						√			
SB	L	SAN BERNARDINO COUNTY	200833	200833	0	0.0	0.0	SAN ANTONIO AVE	23RD ST	24TH ST	SAN ANTONIO AVE. FROM 23RD TO 24TH STREET (0.20 MILES) WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200834	200834	0	0.0	0.0	SAN ANTONIO AVE	CRECENT		SAN ANTONIO CRECENT E - WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200823	200823	0	0.0	0.0	SAN BERNARDINO AVE	LAUREL AVE	0.7 MILES EAST OF LARCH	SAN BERNARDINO AVE. FROM LAUREL AVE. TO 0.7 MILES EAST OF LARCH (RIALTO CL) (1.31 MILES) WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	200835	200835	0	0.0	0.0	SAN BERNARDINO AVE	CHERRY AVE	LIME AVE (FONTANA CITY LIMITS)	SAN BERNARDINO AVE. FROM CHERRY AVE. TO CITY LIMITS (LIME AVE.) (1.25 MILES)-WIDEN 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√					√				
SB	L	SAN BERNARDINO COUNTY	4A01281		0	0.0	0.0	SAN BERNARDINO AVE	Alabama St	California St	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO COUNTY	4A04420		0	0.0	0.0	SH 247	Aberdeen	Linn	WIDEN WITHIN ROW TO ACCOMMODATE PASSING LANES	Exist Config: 1 lane each direction			√							

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	SAN BERNARDINO COUNTY	200844	200844	0	0.0	0.0	SHAY ROAD	FROM 0.07 MILES EAST BARRANCA	TO 0.5 MILES SOUTH OF PIONEERTOWN	SHAY ROAD (OLD SHAY ROAD) FROM 0.07 MILES EAST BARRANCA TO 0.5 MILES SOUTH PIONEERTOWN (1.25 MILES) - WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	SAN BERNARDINO COUNTY	4A01283		0	0.0	0.0	SHEEP CREEK RD	Phelan Rd	SR-138	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction					√					
SB	L	SAN BERNARDINO COUNTY	4A01285	2011122 201161	0	0.0	0.0	SLOVER AV Slover Ave Slover Ave	Alder Av Cedar Ave Alder Ave	Cactus Av Larch Ave Linden Ave	WIDEN FROM 1 TO 2 LANES EACH DI	Exist Config: 1 lane each direction						√				
SB	L	SAN BERNARDINO COUNTY	200824	200824	0	0.0	0.0	STATE STREET	ADAMS NORTH	NOLAN/SHORT ST.	STATE STREET FROM ADAMS NORTH TO NOLAN/SHORT ST. GRADE SEPARATION (1.44 MILES) WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√					√				
SB	L	SAN BERNARDINO COUNTY	4A07050		0	0.0	0.0	STATE ST	in San Bernardino County		WIDEN TO ULTIMATE	Exist Config: I lane in each direction Vertical profile								√		
SB	L	SAN BERNARDINO COUNTY	20040210	20040210	0	0.0	0.0	SUMMIT VALLEY RD	SR-138	RANCHERO ROAD	REALIGNMENT OF SUMMIT VALLEY RD, 2 LANES EA DIR	Exist Config: Dirt Road	√							√		
SB	L	SAN BERNARDINO COUNTY	4A07013		0	0.0	0.0	SUNBURST AVE	in San Bernardino County		WIDEN EXISTING TRAFFIC LANES: ADJUST VERTICAL PROFILE SAFETY	Exist Config: I lane in each direction Vertical profile								√		
SB	L	SAN BERNARDINO COUNTY	200837	200837	0	0.0	0.0	VISTA ROAD	0.2 miles West of national Trails Highway		VISTA ROAD GRADE SEPARATION-WIDEN 2-4 LANES AND CONSTRUCT GRADE SEPARATION	Widen 2 to 4 lanes	√						√			
SB	L	SAN BERNARDINO COUNTY	4A07051		0	0.0	0.0	WILSON RANCH RD	Goss Road	Palmdale	PAVE DIRT ROAD, 1 LANE EACH DIR	Exist Config: Dirt Road								√		
SB	L	SAN BERNARDINO COUNTY	4A07021		0	0.0	0.0	WINTERS RD	in San Bernardino County		PAVE ALTERNATIVE ROUTE TO TNP MARINE BASE	Exist Config: Dirt Road I lane in each direction								√		
SB	L	SAN BERNARDINO COUNTY	200836	200836	0	0.0	0.0	YATES ROAD	.24 MILS NORTH OF CHINQUAPIN	.02 MILES SOURTH OF FORTUNA	Yates Road from .24 miles north of Chinquapin to .02 miles south of Fortuna (1.5) miles) -- wide 2 to 4 lanes	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	SAN BERNARDINO COUNTY (CHINO SPHERE)	4A01273		0	0.0	0.0	FRANCIS AV	LA County Line	Chino City Limit	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	SB COUNTY (MONTCLAIR SPHERE)	4A01267		0	0.0	0.0	CENTRAL AV	MONTCLAIR CITY LIMIT	CHINO CITY LIMIT	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lanes each direction								√		
SB	L	SAN BERNARDINO COUNTY (REDLANDS SPHERE)	4A01262B		0	0.0	0.0	5TH AVE	Crafton Av	Wabash Av	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY (RIALTO SPHERE)	4A01284A		0	0.0	0.0	SIERRA AVE	I-15	Lytle Creek Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY NON-SPHERE	4A07125		0	0.0	0.0	DEVORE RD	I-215 off ramp	Kenwood Dr	WIDEN DEVORE RD FROM I-215 TO KENWOOD DR FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY NON-SPHERE	4A07270		0	0.0	0.0	DEVORE RD	Cajon Blvd	n/o I-215 off ramps	WIDEN DEVORE RD FROM CAJON BLVD TO N/O I-215 OFF RAMPS FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY NON-SPHERE	4A07300		0	0.0	0.0	DEVORE RD	Kenwood Dr	Foothill Dr	WIDEN DEVORE RD FROM KENWOOD DR TO FOOTHILL DR FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY NON-SPHERE	4A07018		0	0.0	0.0	GLEN HELEN PKWY	Lytle Creek Rd	Nely/Cajon	WIDEN GLEN HELEN PKWY FROM LYTLE CREEK TO NELY/CAJON BLVD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY NON-SPHERE	4A07127		0	0.0	0.0	GLEN HELEN RD	Glen Helen Pkwy	NW/End	WIDEN GLEN HELEN RD FROM GLEN HELEN PKWY TO NW/END FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY--DONUT HOLE	4A07073		0	0.0	0.0	ALABAMA ST	Lugonia	Palmetto	WIDEN ALABAMA ST FROM LUGONIA AVE TO PALMETTO AVE FROM 4 TO 6 LANES	Exist Config: 4 lanes each direction								√		
SB	L	SAN BERNARDINO COUNTY--DONUT HOLE	4A07190		0	0.0	0.0	CALIFORNIA ST	San Bernardino	Palmetto	WIDEN CALIFORNIA ST FROM SAN BERNARDINO AVE TO PALMETTO AVE FROM 2 TO 6 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY--DONUT HOLE	4A07291		0	0.0	0.0	CALIFORNIA ST	Almond Ave	San Bernardino Ave	WIDEN CALIFORNIA ST FROM ALMOND AVE TO SAN BERNARDINO AVE FROM 3 TO 6 LANES	Exist Config: 1 to 2 lanes each direction								√		
SB	L	SAN BERNARDINO COUNTY--DONUT HOLE	4A07229		0	0.0	0.0	LUGONIA AVE	California	Alabama	WIDEN LUGONIA AVE FROM CALIFORNIA ST TO ALABAMA ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY--DONUT HOLE	4A07255		0	0.0	0.0	LUGONIA AVE	Alabama St	Tennesee St	WIDEN LUGONIA AVE FROM ALABAMA ST TO TENNESEE ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY--DONUT HOLE	4A07112		0	0.0	0.0	NEVADA ST	Lugonia Ave	Palmetto	WIDEN NEVADA ST FROM LUGONIA AVE TO PALMETTO FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY--DONUT HOLE	4A07154		0	0.0	0.0	PALMETTO AVE	California St	Alabama St	WIDEN PALMETTO AVE FROM CALIFORNIA ST TO ALABAMA ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO COUNTY--DONUT HOLE	4A07147		0	0.0	0.0	SAN BERNARDINO AVE	Alabama St	Redlands Crl	WIDEN SAN BERNARDINO AVE FROM ALABAMA ST TO REDLANDS CRL FROM 2 TO 6 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO, CITY OF	SBD59019	SBD59019	0	0.0	0.0	40TH ST	ACRE LANE	ELECTRIC AVENUE	40TH ST. FROM ACRE LANE TO ELECTRIC AVENUE; ACQUIRE ROW AND WIDEN ROAD FROM 2 TO 4 LANES (1,200 FT.)	WIDEN ROAD TO 4 LANES	√						√			
SB	L	SAN BERNARDINO, CITY OF	4A07119	201170	0	0.0	0.0	5TH ST	Shirley	Victoria	WIDEN 5TH ST FROM SHIRLEY TO VICTORIA FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO, CITY OF	4A07292		0	0.0	0.0	5TH ST	Warm Creek	Pedley	WIDEN 5TH ST FROM WARM CREEK TO PEDLEY FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	4A07175		0	0.0	0.0	ALABAMA ST	3rd St	City Limits	WIDEN ALABAMA ST FROM 3RD ST TO CITY LIMITS FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	SAN BERNARDINO, CITY OF	SBD94118	SBD94118	0	0.0	0.0	ARDEN AVE	PACIFIC SOUTH	SAND CREEK	ARDEN AVENUE PACIFIC SOUTH TO SAND CREEK CONSTRUCT 2 LANE ROAD & BRIDGE OVER SAND CREEK	CONSTRUCT 2 LANE ROAD AND BRIDGE OVER SAND CREEK	√					√				
SB	L	SAN BERNARDINO, CITY OF	4A07181		0	0.0	0.0	CAMPUS PKWY	Kendall	I-215	CAMPUS PKWY (PEPPER-LINDEN) EXTENSION FROM KENDALL TO I-215. CONSTRUCT 4 LANES AND A PARTIAL DIAMOND INTERCHANGE	Exist Config: New road/ I/C								√		
SB	L	SAN BERNARDINO, CITY OF	SBD31908	SBD31908	0	0.0	0.0	CAMPUS PKWY	PAPPER/LINDEN DRIVE	KENDALL DRIVE	(CAMPUS PARKWAY) PEPPER/LINDEN DRIVE KENDALL DRIVE TO N/O COLLEGE CONSTRUCT 4 LANE ROAD	CONSTRUCT 4 LANE ROAD	√	√	√							
SB	L	SAN BERNARDINO, CITY OF	200608	200608	0	0.0	0.0	CENTRAL AVE	TIPPECANOE	MT. VIEW	CENTRAL AVENUE WIDENING PROJECT BETWEEN WATERMAN AND MT.VIEW AVE.(2 MI) -WIDEN FROM 2 4 LANES BETWEEN TIPPECANOE AND MT.VIEW, ADDING CURBS, SIDEWALKS AND LIGHTING	WIDEN FROM 2 TO 4 LANES	√					√				
SB	L	SAN BERNARDINO, CITY OF	4A07081		0	0.0	0.0	COLSTON	Tippecanoe	Mt. View	WIDEN COLSTON AV FROM TIPPECANOE TO MT. VIEW FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	4A07093		0	0.0	0.0	CONNECTOR	3rd	5th	BUILD A CONNECTOR ROAD BETWEEN 3RD ST AND 5TH ST FROM 0 TO 4 LANES	Exist Config: does not exist								√		
SB	L	SAN BERNARDINO, CITY OF	4A07232		0	0.0	0.0	DEL ROSA AVE	6th St	9th St	WIDEN DEL ROSA AVE FROM 6TH ST TO 9TH ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction						√				
SB	L	SAN BERNARDINO, CITY OF	SBD94119	SBD94119	0	0.0	0.0	DEL ROSA DR	6TH STREET	BASELINE	DEL ROSA DRIVE 6TH STREET TO BASELINE: WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	SAN BERNARDINO, CITY OF	4A07094		0	0.0	0.0	ELECTRIC AVE	Mt. View	Northpark Blvd	WIDEN ELECTRIC AVE FROM MT VIEW AVE TO NORTHPARK BLVD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	4A07176		0	0.0	0.0	G ST	Mill St	Rialto Av	WIDEN "G" ST FROM MILL ST TO RIALTO AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO, CITY OF	4A07263		0	0.0	0.0	H ST	Kendall Dr	40th St	WIDEN "H" ST FROM KENDALL DR TO 40TH ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction							√			
SB	L	SAN BERNARDINO, CITY OF	4A07086		0	0.0	0.0	KENDALL DR	Cambridge	Pine	WIDEN KENDALL DR FROM CAMBRIDGE AVE TO PINE AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	200607	200607	0	0.0	0.0	LENA RD	MILL ST	ORANGE SHOW ROAD	LENA ROAD EXENSION PROJECT - EXTENSION OF LENA RD. FROM MILL ST. TO ORANGE SHOW RD.- NEW 4 LANE ROAD (CO-OP PROJECT WITH IVDA)SAFETEA-LU -#1701	NEW 4 LANE ROAD EXTENSION NOTE: LIMITS CHANGED FROM 2004 RTIP WAS"FROM MILL TO CENTRAL"	√				√					
SB	L	SAN BERNARDINO, CITY OF	4A07134		0	0.0	0.0	LITTLE LEAGUE DR	Palm Ave	I-215 Frontage Rd	WIDEN LITTLE LEAGUE DR FROM PALM AVE TO I-215 FRONTAGE RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	4A07177		0	0.0	0.0	LITTLE LEAGUE DR	I-215 Frontage Rd	Belmont Ave	WIDEN LITTLE LEAGUE DR FROM I-215 FRONTAGE RD TO BELMONT AVE (INCLUDING CULVERT) FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	4A07308		0	0.0	0.0	LITTLE MOUNTAIN DR	Devil Creek Channel	48th St	WIDEN LITTLE MIOUNTAIN RD FROM DEVIL CREEK CHANNEL TO 48TH ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	4A07243		0	0.0	0.0	MILL ST	Pepper Av	Meridian	WIDEN MILL FROM PEPPER TO MERIDIAN FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	200609	200609	0	0.0	0.0	MOUNTAIN VIEW AVE	RIVERVIEW	CENTRAL AVE	MT.VIEW WIDENING/EXTENSION PROJECT- FROM RIVERVIEW TO CENTRAL AVE-NEW 4 LANE RD.- WIDEN 2 BRIDGES (SANTA ANA & MISSION CRK) FROM 2-4 LNS;WIDEN S/B FROM 1-2 LNS- COULSTON TO SB AVE	NEW 4 LANE ROAD EXTENSION	√						√			
SB	L	SAN BERNARDINO, CITY OF	4A07211		0	0.0	0.0	MOUNTAIN VIEW AVE	I-10	San Bernardino Av	WIDEN MT VIEW AV FROM I-10 TO SAN BERNARDINO AV FROM 2 TO 4 LANES (WEST SIDE ONLY)	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO, CITY OF	4A07264		0	0.0	0.0	MOUNTAIN VIEW AVE	Thompson Pl	Electric Av	WIDEN MT VIEW AVE FROM THOMPSON PL TO ELECTRIC AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	SBD41316	SBD41316	0	0.0	0.0	MOUNTAIN VIEW AVE	RAILWAY GRADE CROSSING, 1500 FT. NORTH OF I-10		MT. VIEW AVE. RAILWAY GRADE CROSSING, 1500 FT. NORTH OF I-10 WIDEN RAILWAY GRADE CROSSING FROM 1 LANE NORTH & SOUTH TO 2 LANES NORTH & SOUTH & UPGRADE GATES	WIDEN FROM 1 TO 2 LANES EACH DIRECTION	√						√			
SB	L	SAN BERNARDINO, CITY OF	SBD41317	SBD41317	0	0.0	0.0	MOUNTAIN VIEW AVE	MISSION CREEK CHANNEL		MT. VIEW AVE. BRIDGE AT MISSION CREEK CHANNEL WIDEN ROADWAY & SHOULDER WORK AND EXISTING BRIDGE AT MT. VIEW -1 LN. NO. & SO. TO 2 LNS N/S & LFT_TURNS	WIDEN FROM 1 TO 2 LANES EACH DIRECTION	√						√			
SB	L	SAN BERNARDINO, CITY OF	4A07247		0	0.0	0.0	PALM AVE	Cajon Blvd	I-215	WIDEN PALM AV FROM CAJON BLVD TO I-215 FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO, CITY OF	SBD59023	SBD59023	0	0.0	0.0	PEPPER/LINDEN DR	KENDALL	I215 FWY	CAMPUS PKWY-PEPPER/LINDEN DRIVE EXTENSION FROM KENDALL TO I-215 FWY - CONSTRUCT (4) LANE ROADWAY - BETWEEN KENDALL DRIVE AND I-215, PARTIAL DIAMOND INTERCHANGE FOR N/B (2,000 FT)	CONSTRUCT (4) LANE ROADWAY - BETWEEN KENDALL DRIVE AND I-215, PARTIAL DIAMOND INTERCHANGE FOR N/B (2,000 FT)	√						√			
SB	L	SAN BERNARDINO, CITY OF	4A07198		0	0.0	0.0	PERRIS HILL PARK RD	21st St	Pacific St	WIDEN PERRIS HILL PARK RD FROM 21ST ST TO PACIFIC ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	4A07244		0	0.0	0.0	PINE AVE	Kendall Dr	Belmont Av	WIDEN PINE AVE FROM KENDALL DR TO BELMONT AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	4A07148		0	0.0	0.0	RANCHO AVE	Colton City Limits	5th St	WIDEN RANCHO FROM COLTON CITY LIMITS TO 5TH ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	SAN BERNARDINO, CITY OF	4A07135		0	0.0	0.0	RIALTO AVE	Lena Rd	Tippecanoe	WIDEN RIALTO AV FROM LENA RD TO TIPPECANOE AV FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	4A07178		0	0.0	0.0	RIALTO AVE	Sierra Wy	Waterman	WIDEN RIALTO AV FROM SIERRA WY TO WATERMAN FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	SBD59024	SBD59024	0	0.0	0.0	ROSEWOOD	NORTHBOUND ORCHARD DRIVE	EASTBOUND LAURELWOOD DRIVE	ROSEWOOD REALIGNMENT (IN CONNECTION WITH I-10 TIPPECANOE INTERCHANGE) REALIGN ROSEWOOD DRIVE TO NORTH- BOUND ORCHARD DRIVE TO EASTBOUND LAURELWOOD DRIVE(WIDEN 2-4 LANES)	WIDEN 2-4 LANES	√	√	√							
SB	L	SAN BERNARDINO, CITY OF	4A07031		0	0.0	0.0	STATE ST	Foothill	I-215	WIDEN STATE ST FROM FOOTHILL TO I-210 FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO, CITY OF	SBD59021	SBD59021	0	0.0	0.0	STATE ST	16TH STREET	FOOTHILL BLVD	STATE STREET FROM 16TH STREET TO FOOTHILL BLVD.; EXTEND AND CONSTRUCT (2) (4) LANES OF ROADWAY (1.5 MILES) TO CONNECT STATE STREET TO RANCHO AVENUE (NEW ROAD)4 PHASES TOTAL IN PROJECT	EXTEND AND CONSTRUCT (2) (4) LANES OF ROADWAY (1.5 MILES) TO CONNECT STATE STREET TO RANCHO AVENUE	√	√					√			
SB	L	SAN BERNARDINO, CITY OF	200610	200610	0	0.0	0.0	TIPPECANOE AVE	MILL	SANTA ANA RIVER BRIDGE ST	TIPPECANOE WIDENING PROJECT - BETWEEN MILL AND SANTA ANA RIVER BRIDGE ST (1.4 MI)-WIDEN FROM 4-6 LANES INCLUD.MEDIAN LANDSCAPE	WIDEN FROM 4 TO 6 LANES	√					√				
SB	L	SAN BERNARDINO, CITY OF	4A07005		0	0.0	0.0	TIPPECANOE AVE	San Bernardino Ave	Santa Ana River	WIDEN BRIDGE FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	SAN BERNARDINO, CITY OF	4A07152		0	0.0	0.0	TIPPECANOE AVE	Mill St	Harriman	WIDEN TIPPECANOE FROM MILL ST TO HARRIMAN FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction						√				
SB	L	SAN BERNARDINO, CITY OF	4A07228		0	0.0	0.0	UNIVERSITY PKWY	Hallmark Pkwy	BNSF Grade Separation	WIDEN UNIVERSITY PKWY FROM HALLMARK PKWY TO BNSF GRADE SEPARATION FROM 2 TO 4 LANES	Exist Config: 1 lane each direction						√				
SB	L	SAN BERNARDINO, CITY OF	4A01292		0	0.0	0.0	WATERMAN AVE	5th St	Baseline Av	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 1 lane each direction									√	
SB	L	SAN BERNARDINO, CITY OF	4A07003		0	0.0	0.0	WATERMAN AVE	Hospitality Lane	Redlands Blvd	REPLACE I-10 BRIDGE TO WIDEN WATERMAN AVE FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction									√	
SB	L	SAN BERNARDINO, CITY OF - SPHERE	4A07380		0	0.0	0.0	DEL ROSA AVE	Del Rosa Dr	San Bernardino City Limits	WIDEN DEL ROSA AVE FROM DEL ROSA DR TO SAN BERNARDINO CITY LIMITS FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO, CITY OF - SPHERE	4A07256		0	0.0	0.0	DEL ROSA DR	Base Line Rd	Pacific St	WIDEN DEL ROSA DR FROM BASE LINE RD TO PACIFIC ST FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO, CITY OF - SPHERE	4A07230		0	0.0	0.0	FIFTH ST	Pedley Rd	Tippecanoe Av	WIDEN FIFTH ST FROM PEDLEY RD TO TIPPECANOE AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO, CITY OF - SPHERE	4A07234		0	0.0	0.0	FIFTH ST	Waterman Ave	Pedley Rd	WIDEN FIFTH ST FROM WATERMAN AVE TO PEDLEY RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO, CITY OF - SPHERE	4A07060		0	0.0	0.0	KENDALL DR	Palm Ave	Cajon Blvd	WIDEN KENDALL DR FROM PALM AVE TO CAJON BLVD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SAN BERNARDINO, CITY OF - SPHERE	4A07049		0	0.0	0.0	STATE ST	Highland Ave	SR-30	WIDEN STATE ST FROM HIGHLAND AVE TO SR-30 FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	SANBAG	200622	200622	0	0.0	0.0	LENWOOD RD	400 FEET NORTH OF BNSF RR	600 FEET SOUTH OF BNSF RR	LENWOOD GRADE SEPARATION - NORTH OF WEST MAIN ST. APPROX. 400 FT. N/O TO 600 FT. S/O BNSF AND SANTA FE RR RIGHT-OF-WAY-4 TRAVEL LANE GRADE SEPARATION		√					√				
SB	L	SANBAG	4A0803		0	0.0	0.0	LENWOOD RD	400 FEET NORTH OF BNSF RR	600 FEET SOUTH OF BNSF RR	WIDEN FROM 4 LANES TO 6 LANES (3 EA DIR)	Note: widening to 4 lanes complete by 2012 under RTIP# 200622								√		
SB	L	TBD	4C01001		0	0.0	0.0	PINE AVE (FOUR CORNERS)			NEW ARTERIAL CORRIDOR LINKING PINE AVE, SCHLEISMAN AVE, ARLINGTON AVE (RIV. CO.)	Exist Config:									√	
SB	L	TWENTYNINE PALMS	SBD41427	SBD41427	0	0.0	0.0	AMBOY RD	LEAR AVNUE	ADOBE ROAD	AMBOY ROAD - LEAR AVE TO ADOBE RD. (5.5 MILES) CONSTRUCT NEW 2 LANE ROAD (ONE LANE IN EACH DIRECTION)	CONSTRUCT NEW 2 LANE ROAD	√						√			
SB	L	TWENTYNINE PALMS	4A01293		0	0.0	0.0	LEAR AV/SUNFAIR RD	Poleline Rd	MCAS	NEW ROAD, 2 LANES EACH DIR	Exist Config: No Road there currently						√				
SB	L	TWENTYNINE PALMS	SBD94173	SBD94173	0	0.0	0.0	SR-62	LEE DRIVE	LUPINE DRIVE	STATE ROUTE 62 LEE DRIVE TO LUPINE DRIVE WIDEN FROM 4 TO 5 LANES FOR CONTINUOUS LEFT TURN LANE	WIDEN FROM 4 TO 5 LANES	√			√						
SB	L	TWENTYNINE PALMS	SBD94174	SBD94174	62	0.0	0.0	SR-62	CANYON	SUNRISE	STATE ROUTE 62 FROM CANYON TO SUNRISE WIDEN FROM 4 TO 5 LANES FOR CONTINUOUS LEFT TURN LANE		√				√					
SB	L	TWENTYNINE PALMS	SBD41428	SBD41428	0	0.0	0.0	TWO MILE RD	SUNRISE AVENUE	LEAR AVENUE	TWO MILE ROAD - SUNRISE AVE. TO LEAR AVE. (2.5 MILES) WIDEN ROAD FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√			√						
SB	L	UPLAND	200041	200041	0	0.0	0.0	19TH ST (SR30)	CUCAMONGA CANYON CHANNEL	CAMPUT AVENUE	ON 19TH STREET (SR 30) FROM CUCAMONGA CANYON CHANNEL TO CAMPUS AVENUE - STREET IMPROVEMTS. BRIDGE WIDEN FROM 2-4 LANES, SIGNAL	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	UPLAND	4A07155		0	0.0	0.0	19TH ST (SR30)	East City Limits	Campus	WIDEN 19TH ST FROM EAST CITY LIMITS TO CAMPUS FROM 2 TO 4 LANES	Exist Config: 2 lane roadway			√							
SB	L	UPLAND	4A01294		0	0.0	0.0	ARROW HWY	San Antonio Av	East City Limit	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	UPLAND	4A07076		0	0.0	0.0	ARROW HWY	County Line	Central	WIDEN ARROW FROM COUNTY LINE TO CENTRAL FROM 2 TO 4 LANES	Exist Config: 2 lane arterial road				√						

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CO	SYS*	LEAD AGENCY	RTP ID	RTIP ID	RTE	BEG PM	END PM	STREET	FROM	TO	DESCRIPTION	ADDITIONAL DETAILS, IF AVAILABLE	2008 RTIP	NO BUILD	NETWORK YR (PROJECT COMPLETION BY)**							
															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	UPLAND	200630	201101	0	0.0	0.0	ARROW RTE	MONTE VISTA AVE	BENSON AVE	ARROW ROUTE WIDENING FROM MONTE VISTA AVE TO BENSON AVENUE - WIDEN FROM 2 TO 4 LANES 1 IN EA DIR. (1.1MILE)	WIDEN FROM 2 TO 4 LANES 1 IN EACH DIR.	√					√				
SB	L	UPLAND	4A04295		0	0.0	0.0	CAMPUS AVE	16th St	18th St	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction			√							
SB	L	UPLAND	SBD31867	SBD31867	0	0.0	0.0	CAMPUS AVE	19TH STREET	20TH STREET	CAMPUS AVENUE 19TH STREET TO 20TH STREET CONSTRUCT 4 LANE CONNECTION	CONSTRUC 4 LANE CONNECTION	√	√	√							
SB	L	UPLAND	4A01296		0	0.0	0.0	CENTRAL AVE	Foothill Bl	Benson Av	NEW ROAD, 2 LANES EACH DIR	Exist Config: N/A								√		
SB	L	UPLAND	4A01297		0	0.0	0.0	CENTRAL AVE	South City Limits	Arrow Route	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lane raodway									√	
SB	L	UPLAND	4A01298		0	0.0	0.0	FOOTHILL BL	Benson Av	East City Limit	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lane state route (sr66)									√	
SB	L	UPLAND	4A07098	201102	0	0.0	0.0	FOOTHILL BL	500' west of Monte Vista Ave	Central	WIDENING TO ULITMATE WIDTH (FROM 2 TO 6 LANES) AND TO PROVIDE DUAL LEFT-TURN LANES	Exist Config: 2 lane state route (sr66)								√		
SB	L	UPLAND	SBD41438	SBD41438	0	0.0	0.0	NORTHWEST CORNER OF "A" ST	AT 3RD		CORNER: NWC OF 'A' ST. AND 3RD AVE. 52 STALL PARKING LOT FOR METROLINK	PARK N RIDE	√							√		
SB	L	UPLAND SPHERE	4A07179		0	0.0	0.0	ARROW RTE	Clairmont	Central Ave	WIDEN ARROW ROUTE FROM CLAIRMONT AVE TO CENTRAL AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	UPLAND SPHERE	4A07219		0	0.0	0.0	ARROW RTE	Central Ave	Benson Ave	WIDEN ARROW ROUTE FROM CENTRAL AVE TO BENSON AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	UPLAND SPHERE	4A07118		0	0.0	0.0	EUCLID AVE	24th	Mountain Av	WIDEN EUCLID AVE FROM 24TH ST TO MOUNTAIN AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	UPLAND SPHERE	4A07047		0	0.0	0.0	MOUNTAIN AVE	Euclid	LA County Line	WIDEN MOUNTAIN AVE FROM EUCLID AVE TO LA COUNTY LINE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	UPLAND SPHERE	4A07105		0	0.0	0.0	MOUNTAIN AVE	23rd	Euclid	WIDEN MOUNTAIN AVE FROM 23RD ST TO EUCLID AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	UPLAND SPHERE	4A07316		0	0.0	0.0	SAN ANTONIO AVE	23rd	24th	WIDEN SAN ANTONIO AVE FROM 23RD TO 24TH FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	UPLAND SPHERE	4A07357		0	0.0	0.0	SAN ANTONIO CRESCENT E	24th	San Antonio Crescent West	WIDEN SAN ANTONION CRESCENT EAST FROM 24TH ST TO SAN ANTONIO CRESCENT WEST	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	SBD031421	SBD031421	0	0.0	0.0	3RD AVE	BEAR VALLEY ROAD	NISQUALLI ROAD	3RD AVENUE BEAR VALLEY TO NISQUALLI ROAD WIDEN FROM 2 LANES TO 4 LANES, EXTEND ROAD WITH 4 LANES	WIDEN FROM 2 TO 4 LANES	√					√				
SB	L	VICTORVILLE	SBD031422	SBD031422	0	0.0	0.0	3RD AVE	NISQUALLI ROAD	GREEN TREE BLVD	3RD AVENUE NISQUALLI ROAD TO GREEN TREE BOULEVARD WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√						√			
SB	L	VICTORVILLE	SBD031395	SBD031395	0	0.0	0.0	7TH AVE	BEAR VALLEY ROAD	NISQUALLI ROAD	7TH AVENUE BEAR VALLEY ROAD TO NISQUALLI ROAD WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
SB	L	VICTORVILLE	200418	200418	0	0.0	0.0	AIR EXWY	NATIONAL TRAILS HIGHWAY	VILLAGE DRIVE	AIR EXPRESSWAY FROM NATION TRAILS HIGHWAY TO VILLAGE DRIVE - WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	VICTORVILLE	4A07149		0	0.0	0.0	AMARGOSA RD	Rancho Rd	Village Dr	WIDEN AMARGOSA RD FROM RANCHO RD TO VILLAGE DR FROM 0 TO 4 LANES (INCLUDES WASH CROSSING)	Exist Config: New road					√					
SB	L	VICTORVILLE	4A07276		0	0.0	0.0	AMARGOSA RD	Clovis Rd	Rancho Rd	WIDEN AMARGOSA RD FROM CLOVIS RD TO RANCHO ROAD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	4A07281		0	0.0	0.0	AMARGOSA RD	Just s/o Air Base Rd	At Power Line Easement	WIDEN AMARGOSA RD FROM JUST S/O AIR BASE RD TO POWER LINE EASEMENT FROM 1 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	4A07318		0	0.0	0.0	AMARGOSA RD	2050' s/o Air Base Rd	At Power Line Easement	WIDEN AMARGOSA RD FROM 2050' S/O AIR BASE DR TO POWER LINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07319		0	0.0	0.0	AMARGOSA RD	1780' n/o Village Drive	At Power Line Easement	WIDEN AMARGOSA RD FROM 1780' N/O VILLAGE DR TO CENTER OF LADWP POWER LINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	200050	200050	0	0.0	0.0	AMETHYST RD	SYCAMORE ROAD	EUCALYPTUS ROAD	AMETHYST RD FROM SYCAMORE RD TO EUCALYPTUS RD - CONSTRUCT NEW 4 LANE ROAD	CONSTRUCT NEW 4 LANES ROAD	√							√		
SB	L	VICTORVILLE	4A07223		0	0.0	0.0	AMETHYST RD	Rancho Rd	Hopland	WIDEN AMETHYST RD FROM RANCHO RD TO HOPLAND FROM 0 TO 4 LANES	Exist Config: New road					√					
SB	L	VICTORVILLE	4A07296		0	0.0	0.0	AMETHYST RD	Just n/o Hopland	Power Line Easement	WIDEN AMETHYST RD FROM JUST N/O HOPLAND TO POWER LINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	SBD031418	SBD031418	0	0.0	0.0	AMETHYST RD	PALMDALE ROAD	HOPLAND STREET	AMETHYST ROAD PALMDALE ROAD TO HOPLAND STREET WIDEN EXISTING ROAD FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√				√				
SB	L	VICTORVILLE	4A07221		0	0.0	0.0	ASTER RD	Palmdale Rd	Olvine Rd	WIDEN ASTER RD FROM PALMDALE RD TO OLVINE RD FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07348		0	0.0	0.0	ASTER RD	Olvine Rd	Del Rosa Rd	WIDEN ASTER RD FROM OLVINE RD TO DEL ROSA RD FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A01310		0	0.0	0.0	BALDY MESA RD	Palmdale Rd	La Mesa Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	4A07285		0	0.0	0.0	BALDY MESA RD	La Mesa Rd	Olivine Rd	WIDEN BALDY MESA RD FROM LA MESA RD TO OLIVINE RD FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07156		0	0.0	0.0	BEAR VALLEY RD	US Hwy 395	Aster Rd (Monte Vista Rd)	WIDEN BEAR VALLEY FROM US HWY 395 TO ASTER RD FROM 2 LANES TO 6 LANES.	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	4A07355		0	0.0	0.0	BEAR VALLEY RD	1920' e/o Topaz Rd	At Power Line Easement	WIDEN BEAR VALLEY RD FROM 1920' E/O TOPAZ RD TO POWER LINE EASEMENT	Exist Config:								√		

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	VICTORVILLE	4A07391		0	0.0	0.0	BEAR VALLEY RD	1270' w/o Topaz Rd	At Power Line Easement	WIDEN BEAR VALLEY RD FROM 1270' W/O TOPAZ RD TO POWER LINE EASEMENT FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	4A07096		0	0.0	0.0	BELLFLOWER ST	Bear Valley Rd	Goodwin Dr	WIDEN BELLFLOWER RD FROM BEAR VALLEY RD TO .5 MI. S/O GOODWIN DR FROM 0 LANES TO 4 LANES.	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07331		0	0.0	0.0	CIVIC DR	Mojave Dr	Roy Rodgers Dr	WIDEN CIVIC DR FROM MOJAVE DR. TO ROY ROGERS DR. FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	SBD031398	SBD031398	0	0.0	0.0	COTTONWOOD AVE	MARIPOSA ROAD	BEAR VALLEY	COTTONWOOD AVENUE MARIPOSA ROAD TO BEAR VALLEY WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√						√		
SB	L	VICTORVILLE	4A07307		0	0.0	0.0	EL EVADO RD	1260' n/o Hook Bl	At Power Line Easement	WIDEN EL EVADO RD FROM 1260' N/O HOOK BL TO POWER LINE EASEMENT	Exist Config:								√		
SB	L	VICTORVILLE	4A07330		0	0.0	0.0	EL EVADO RD	510' s/o Rancho Rd	At Power Line Easement	WIDEN EL EVADO RD FROM 510' S/O RANCHO RD TO AT POWER LINE EASEMENT FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	SBD031419	SBD031419	0	0.0	0.0	EL EVADO RD	PALMDALE ROAD	AIR BASE ROAD	EL EVADO ROAD, PALMDALE RD TO AIR BASE ROAD--PALMDALE TO HOPLAND (12/98) HOPLAND TO AIR BASE (12/96), WIDEN FROM 2 TO 4 WITH LEFT TURN LANES	WIDEN FROM 2 TO 4 LANES	√	√					√			
SB	L	VICTORVILLE	200417	200417	0	0.0	0.0	EUCALYPTUS ST	US-395	MESA LINDA	EUCALYPTUS ST FROM US395 TO AMETHYST- NEW 4 LANE RD FROM 395 TO MESA LINDA; WIDEN 2 TO 4 LANES FROM MESA LINDA TO CLOVERLY; CONSTRUCT NEW 4 LANE RD FROM CLOVERLY TO AMETHYST	CONSTRUCT NEW 4 LANE ROAD	√							√		
SB	L	VICTORVILLE	4A07287		0	0.0	0.0	EUCALYPTUS ST	US-395	Mesa View Dr.	WIDEN EUCALYPTUS ST FROM US 395 TO MESA VIEW DR. FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07249		0	0.0	0.0	EUCALYPTUS ST	Amargosa Rd	Amethyst Rd	WIDEN EUCALYPTUS ST FROM AMARGOSA RD TO AMETHYST RD FROM 0 TO 6 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07286		0	0.0	0.0	EUCALYPTUS ST	Mesa View Dr	Bellflower Rd	WIDEN EUCALYPTUS ST FROM MESA VIEW DR. TO BELLFLOWER RD FROM 0 TO 4 LANES (VICTORVILLE PORTION ONLY)	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07011		0	0.0	0.0	GREEN TREE BL	Hesperia Rd	Ridgecrest Rd	AT ATS&F RAILROAD CONSTRUCT 4-LANE BRIDGE; WIDEN GREEN TREE 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	SBD97147	SBD97147	0	0.0	0.0	GREEN TREE BL	AT AT&SF RAILROAD	TO HESPERIA/ RIDGECREST ROAD	GREEN TREE BLVD AT AT&SF RAILROAD CONSTRUCT 4-LANE BR & CONNECT TO HESPERIA & RIDGECREST RD	CONSTRUCT 4 LANE BRIDGE	√						√			
SB	L	VICTORVILLE	4A07383		0	0.0	0.0	HOOK BL	1680' w/o Emerald Rd	At Power Line Easement	WIDEN HOOK BLVD FROM 1680' W/O EMERALD RD TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07389		0	0.0	0.0	HOOK BL	1820' e/o US-395	At Power Line Easement	WIDEN HOOK BLVD FROM 1820' E/O US-395 TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A01325		0	0.0	0.0	HOOK BL	US-395	AMETHYST RD	WIDEN HOOK FROM US 395 TO 0.4 MILES WEST OF AMETHYST 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07309		0	0.0	0.0	HOPLAND ST	US-395	Cobalt Rd	WIDEN HOPLAND ST FROM US-395 TO COBALT RD FROM 0 TO 4 LANES (VICTORVILLE PORTION ONLY)	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07387		0	0.0	0.0	HOPLAND ST	Just w/o Amethyst Rd	At Power Line Easement	WIDEN HOPLAND ST FROM JUST W/O AMETHYST RD TO AT POWER LINE EASEMENT FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	4A07092		0	0.0	0.0	LA MESA RD	Baldy Mesa	Cantina	WIDEN LA MESA RD FROM BALDY MESA TO CANTINA DR FROM 0 LANES TO 4 LANES.	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07224		0	0.0	0.0	LA MESA RD	Caughlin Rd	White Rd	WIDEN LA MESA RD FROM CAUGHLIN RD TO WHITE RD FRM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07288		0	0.0	0.0	LA MESA RD	White Rd	Baldy Mesa Rd	WIDEN LA MESA RD FROM WHITE RD TO BALDY MESA RD FROM 0 TO 4 LANES (VICTORVILLE PORTION ONLY)	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07382		0	0.0	0.0	LA MESA RD	2010' e/o Topaz Rd	At Power Line Easement	WIDEN LA MESA RD FROM 2010' E/O TOPAZ RD TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07332		0	0.0	0.0	MARIPOSA RD	Palmdale Rd	Yates Rd	WIDEN MARIPOSA RD FROM 0.2 MI. S/O PALMDALE RD TO YATES RD.	Exist Config:								√		
SB	L	VICTORVILLE	4A07312		0	0.0	0.0	MOJAVE DR	1000' e/o El Evado Rd	At Power Line Easement	WIDEN MOJAVE DR FROM 1000' E/O EL EVADO RD TO AT POWER LINE EASEMENT FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	VICTORVILLE	4A07377		0	0.0	0.0	MOJAVE DR	Just w/o Cobalt Rd	At Power Line Easement	WIDEN MOJAVE DR FROM JUST W/O COBALT RD TO AT POWER LINE EASEMENT FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	VICTORVILLE	4A07388		0	0.0	0.0	MOJAVE DR	1190' e/o US-395	At Power Line Easement	WIDEN MOJAVE DR FROM 1190' E/ US-395 TO AT POWER LINE EASEMENT FROM 4 TO 6 LANES	Exist Config: 2 lanes each direction								√		
SB	L	VICTORVILLE	4A07025		0	0.0	0.0	NATIONAL TRAILS HWY	MOJAVE RIVER		WIDEN NATIONAL TRAILS HIGHWAY BRIDGE OVER MOJAVE RIVER (REPLACE EXISTING BRIDGE)	Exist Config:								√		
SB	L	VICTORVILLE	4A01339		0	0.0	0.0	NATIONAL TRAILS HWY	Mojave River	I-15	WIDEN FROM 1 TO 2 LANES EACH DIR (NOTE: OVERLAPS RTIP#SBD88140)	Exist Config: 1 lane each direction					√					

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	VICTORVILLE	4A07239		0	0.0	0.0	NATIONAL TRAILS HWY	Mojave River	1.6 mi. n/o Mojave River	WIDEN NATIONAL TRAILS HIGHWAY FROM MOJAVE RIVER TO 1.6 MI. N/O MOJAVE RIVER - 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	SBD88140	SBD88140	0	0.0	0.0	NATIONAL TRAILS RD	I-15	AIRBASE ROAD	NATIONAL TRAILS ROAD BETWEEN INTERSTATE 15 & AIRBASE RD. WIDEN FROM 2 LANES TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√		√							
SB	L	VICTORVILLE	SBD031412	SBD031412	0	0.0	0.0	NISQUALLI RD	BALSAM ROAD	HESPERIA ROAD	NISQUALLI RD FROM BALSAM RD TO HESPERIA RD - WIDEN FROM 2 LANES TO 4 LANES, DRAINAGE IMPROVEMENTS, AND VERTICAL REALIGNMENT	WIDEN FROM 2 TO 4 LANES	√	√			√					
SB	L	VICTORVILLE	4A01343		0	0.0	0.0	OTTAWA ST	Mariposa Rd	Ottawa Pl	WIDEN OTTAWA ST FROM MARIPOSA RD TO OTTAWA PL FROM 0 TO 4 LANES	Exist Config: New road					√					
SB	L	VICTORVILLE	4A07360		0	0.0	0.0	OTTAWA ST	Hesperia Rd	Industrial Blvd	WIDEN OTTAWA ST FROM HESPERIA RD TO INDUSTRIAL BLVD FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07023		0	0.0	0.0	PALMDALE RD	US 395	I-15	WIDEN PALMDALE RD FROM US 395 TO I-15 FROM 4 TO 6 LANES. 8.5 LANE MILES	Exist Config: 2 lanes each direction									√	
SB	L	VICTORVILLE	4A01362		0	0.0	0.0	RANCHO RD	National Trails Hwy	Stoddard Wells Rd	WIDEN RANCHO RD FROM NATIONAL TRAILS HWY TO STODDARD WELLS RD FROM 0 TO 4 LANES.	Exist Config: New road					√					
SB	L	VICTORVILLE	4A07160		0	0.0	0.0	RANCHO RD	Amargosa	National Trails Hwy	WIDEN RANCHO FROM AMARGOSA TO NATIONAL TRAILS HWY FROM 0 TO 4 LANES (INCLUDES WAS CROSSING)	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07257		0	0.0	0.0	RANCHO RD	Just w/o El Evado Rd	At Power Line Easement	WIDEN RANCHO RD FROM JUST W/O EL EVADO TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07282		0	0.0	0.0	RANCHO RD	Amethyst	El Evado Rd	WIDEN RANCHO RD FROM AMETHYST RD TO EL EVADO RD FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07301		0	0.0	0.0	RANCHO RD	Pacoima	At Power Line Easement	WIDEN RANCHO RD FROM PACOIMA TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07325		0	0.0	0.0	RANCHO RD	Cobalt Rd	Amethyst Rd	WIDEN RANCHO RD FROM COBALT RD TO AMETHYST RD FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07351		0	0.0	0.0	RANCHO RD	2025' e/o Gasline Rd	At Power Line Easement	WIDEN RANCHO RD FROM 2025' E/O GASLINE RD TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07376		0	0.0	0.0	RANCHO RD	Just w/o Village Dr	At Power Line Easement	WIDEN RANCHO RD FROM JUST W/O VILLAGE DR TO AT POWER LINE EASEMENT FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	4A01354		0	0.0	0.0	SENECA RD	US-395	Amethyst Rd	NEW ROAD, 2 LANES EACH DIR	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07350		0	0.0	0.0	SENECA RD	2340' w/o El Evado Rd	At Power Line Easement	WIDEN SENECA RD FROM 2340' W/O EL EVADO RD TO AT POWER LINE EASEMENT FROM 3 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	4A07362		0	0.0	0.0	SENECA RD	0.4 m e/o Hesperia Rd	Road B	WIDEN SENECA RD FROM .4 M E/O HESPERIA RD TO ROAD B FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07365		0	0.0	0.0	SENECA RD	2360' e/o US-395	At Power Line Easement	WIDEN SENECA RD FROM 2360' E/O US-395 TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07378		0	0.0	0.0	SENECA RD	Hesperia Rd	.2 m e/o Hesperia Rd	WIDEN SENECA RD FROM HESPERIA RD TO 0.2 M E/O HESPERIA RD FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07384		0	0.0	0.0	SENECA RD	650' w/o Emerald Rd	At Power Line Easement	WIDEN SENECA RD FROM 650' W/O EMERALD RD TO AT POWER LINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07075		0	0.0	0.0	SMOKETREE RD	Topaz Rd	Amargosa Rd	WIDEN SMOKETREE RD FROM TOPAZ RD TO AMARGOSA RD FROM 0 TO 4 LANES (INCLUDES WASH CROSSING)	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07359		0	0.0	0.0	STODDARD WELLS RD	Dante St	I-15	WIDEN STODDARD WELLS FROM DANTE ST TO OSBORNE RD, 0.56 MI. S/O I-15, FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	4A01361		0	0.0	0.0	TOPAZ RD	Seneca Rd	Palmdale Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE	4A07164		0	0.0	0.0	TOPAZ RD	Hopland	Luna Rd	WIDEN TOPAZ RD FROM HOPLAND ST TO LUNA ROAD FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07283		0	0.0	0.0	TOPAZ RD	Eucalyptus	Smoketree Rd	WIDEN TOPAZ RD FROM EUCALYPTUS RD TO SMOKETREE RD FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE	4A07379		0	0.0	0.0	TOPAZ RD	360' n/o Seneca Rd	At power line easement	WIDEN TOPAZ RD FROM 360' N/O SENECA RD TO AT POWERLINE EASEMENT FROM 0 TO 4 LANES	Exist Config: New road								√		
SB	L	VICTORVILLE SPHERE	4A07210		0	0.0	0.0	AMETHYST RD	Palmdale Rd	Seneca Rd	WIDEN AMETHYST RD FROM PALMDALE RD TO SENECA RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE SPHERE	4A07088		0	0.0	0.0	DOS PALMAS	Pacoima Rd	Borego Rd	WIDEN DOS PALMAS RD FROM PACOIMA RD TO BOREGO RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE SPHERE	4A07220		0	0.0	0.0	DOS PALMAS	San Mateo Rd	Pacoima	WIDEN DOS PALMAS RD FROM SAN MATEO RD TO PACOIMA RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE SPHERE	4A07099		0	0.0	0.0	EL EVADO RD	La Brisa Rd	Anacapa Rd	WIDEN EL EVADO RD FROM LAS BRISA RD TO ANACAPA RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE SPHERE	4A07209		0	0.0	0.0	EMERALD RD	Palmdale RD	Seneca Rd	WIDEN EMERALD RD FROM PALMDALE RD TO SENECA RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE SPHERE	4A07128		0	0.0	0.0	RIDGE CREST RD	Pah-ute Rd	Chinquapin Dr	WIDEN RIDGE CREST RD FROM PAH-UTE RD TO CHINQUAPIN RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		

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															2008	2009	2010	2012	2014	2020	2030	2035
SB	L	VICTORVILLE SPHERE	4A07113		0	0.0	0.0	SENECA RD	Emerald Rd	Amethyst Rd	WIDEN SENECA RD FROM EMERALD RD TO AMETHYST RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE SPHERE	4A07043		0	0.0	0.0	SPRING VALLEY PKWY	Huerta Rd	Driftwood Dr	WIDEN SPRING VALLEY PKWY FROM HUERTA RD TO DRIFTWOOD DR FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE SPHERE	4A07171		0	0.0	0.0	STODDARD WELLS RD	Los Padres	I-15	WIDEN STODDARD WELLS RD FROM LOS PADRES RD TO I-15 FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	VICTORVILLE SPHERE	4A07089		0	0.0	0.0	YATES RD	Chinquapin Dr	Fortuna	WIDEN YATES RD FROM CHINQUAPIN DR TO FORTUNA RD FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA	4A04415		0	0.0	0.0	14TH ST	Yucaipa Bl	Oak Glen Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA	4A01366		0	0.0	0.0	5TH ST	Oak Glen Rd	County Line Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA	200043	200043	0	0.0	0.0	AVE E	10TH	12TH STREET	AVENUE E FROM OAK GLEN RD TO 600' WEST OF OAK GLEN RD. WIDEN FROM 2-4 LANES, ALSO BOX CULVERT AT WILSON CREEK TO BE 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	YUCAIPA	4A04416	2011157	0	0.0	0.0	AVE E	8th St	Bryant St	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA	4A07248		0	0.0	0.0	AVE E	16th St	Wilson Ck	WIDEN AVE E FROM 16TH ST TO WILSON CK ST FROM 2 LANES TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA	4A04417		0	0.0	0.0	BRYANT ST	North City Limits	County Line Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction									√	
SB	L	YUCAIPA	4A01367		0	0.0	0.0	CALIFORNIA ST	Yucaipa Blvd	County Line Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA	4A01368		0	0.0	0.0	CALIMESA BL	Oak Glen Rd	County Line Rd	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA	4A01370		0	0.0	0.0	COUNTY LINE RD	I-10	Bryant St	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA	4A01371		0	0.0	0.0	LIVE OAK CYN RD	West City Limit	I-10	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA	200045	200045	0	0.0	0.0	OAK GLEN RD	BRYANT STREET	2ND STREET	OAK GLEN RD. FROM BRYANT ST. TO 2ND STREET - WIDEN FROM 2-4 LANES, WIDEN CULVERT AT WILSON CREEK TO 4 LANES ALSO	WIDEN FROM 2 TO 4 LANES	√	√	√							
SB	L	YUCAIPA	200047	200047	0	0.0	0.0	OAK GLEN RD	YUCAIPA BLVD	AVENUE E	OAK GLEN RD. FROM YUCAIPA BLVD. TO AVENUE E - WIDEN FROM 2-4 LANES	WIDEN FROM 2 TO 4 LANES	√		√							
SB	L	YUCAIPA	4A07041		0	0.0	0.0	OAK GLEN RD	Colorado St	Casa Blanca Ave	WIDEN OAK GLEN RD FROM COLORADO ST TO CASA BLANCA AVE FROM 2 TO 4 LANES	Exist Config: 1 lane each direction									√	
SB	L	YUCAIPA	4A01376A		0	0.0	0.0	WILDWOOD CANYON RD	Calimesa Bl	Colorado St	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction					√					
SB	L	YUCAIPA	4A01376B	201116	0	0.0	0.0	WILDWOOD CANYON RD	Colorado St	Canyon Dr	WIDEN FROM 1 TO 2 LANES EACH DIR	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA	4A07022		0	0.0	0.0	WILDWOOD CANYON RD	Outer I-10	Calimesa Blvd New Rd	WIDEN WILDWOOD CYN RD FROMOUTER I-10 ST TO CALIMESA BLVD FROM 2 LANES TO 4 LANES.	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA	200042	200042	0	0.0	0.0	YUCAIPA BL	5TH STREET	14th STREET	YUCAIPA BLVD. FROM 5TH TO 14TH STREET - WIDENING FROM 4-6 LANES	WIDEN FROM 4 TO 6 LANES	√				√					
SB	L	YUCAIPA	4A04418		0	0.0	0.0	YUCAIPA BL	I-10	Bryant St	WIDEN FROM 2 TO 3 LANES EACH DIR	Exist Config: 2 lanes each direction								√		
SB	L	YUCAIPA SPHERE	4A07304		0	0.0	0.0	BRYANT ST	Juniper Ave	SR-38	WIDEN BRYANT ST FROM JUNIPER AVE TO SR-38 FROM 2 TO 4 LANES	Exist Config: 1 lane each direction								√		
SB	L	YUCAIPA SPHERE	4A07238		0	0.0	0.0	CRAFTON HILLS PKWY	Wabash Ave	E/Crafton PUD	WIDEN CRAFTON HILLS PKWY FROM WABASH AVE TO E/CRAFTON PUD FROM 0 TO 2 LANES	Exist Config:										√
SB	L	YUCCA VALLEY	4A01377		0	0.0	0.0	KICKAPOO TRAIL	SR-62	Yucca Trail	NEW ROAD, 1 LANE EACH DIR	Exist Config:					√					
SB	L	YUCCA VALLEY	4A01378		0	0.0	0.0	ONAGA TRAIL	Kickapoo	Camino del Cielo	NEW ROAD, 1 LANE EACH DIR	Exist Config:					√					
SB	L	YUCCA VALLEY	4A01379		0	0.0	0.0	SANTA FE TRAIL	Apache	Acoma	NEW ROAD, 1 LANE EACH DIR	Exist Config:					√					
SB	L	YUCCA VALLEY	4A07001		0	0.0	0.0	SR-62	Yucca Trail	Acoma Trail	NEW ROAD, 3 LANES EACH DIR	Exist Config: New bypass of portion existing SR 62						√				
SB	L	YUCCA VALLEY	4A01380		0	0.0	0.0	SUNNYSLOPE DR	Mohawk	Pioneertown Rd	NEW ROAD, 1 LANE EACH DIR	Exist Config:					√					
SB	L	YUCCA VALLEY	4A01381		0	0.0	0.0	SUNNYSLOPE DR	Pioneertown Rd	Camino del Cielo	NEW ROAD, 1 LANE EACH DIR	Exist Config:					√					
SB	T	CHINO	SBD41220	SBD41220	0	0.0	0.0	MULTI-MODAL TRANSPORTATION CENTER			CHINO AVENUE/CENTRAL TO 6TH STS. MULTI-MODAL TRANSPORTATION CENTER INCLUDES PARK-N-RIDE LOT WITH 125 SPACES(PHASE 1 FUNDED-PHASE 2 AWAITING FUNDING)		√	√	√							
SB	T	NEEDLES	R589TA	R589TA	0	0.0	0.0	MULTIMODAL STATION			INTERSTATE - LOS ANGELES/CHICAGO AT EL GARCES STATION MULTIMODAL - STATION - FACILITY		√	√				√				
SB	T	OMNITRANS	200101	200101	0	0.0	0.0	BUS TRANSFER CENTER			BUS SYSTEM - PASSENGER FACILITIES: DEVELOPMENT OF SAN BERNARDINO TERMINAL LOCATED ON RIALTO AND E STREET. TRANSFER POINT CENTER		√	√			√					
SB	T	OMNITRANS	200625	200625	0	0.0	0.0	E STREET TRANSIT CORRIDOR (BRT)			E STREET TRANSIT CORRIDOR- FROM SAN BERNARDINO TO LOMA LINDA		√	√						√		
SB	T	REDLANDS	200037	200037	0	0.0	0.0	LOCAL TROLLEY SERVICE			4 MILE ROUTE WITHIN THE CITY OF REDLANDS - LOCAL TRANSPORTATION SERVICE UTILIZING CNG POWERED, RUBBER WHEEL TROLLEYS		√	√	√							
SB	T	SANBAG	20020801	20020801	0	0.0	0.0	METROLINK ROLLING STOCK			METROLINK ROLLING STOCK - SANBAG'S SHARE OF PURCHASE OF METROLINK CARS & LOCOM UP TO 47 CARS/CABS AND IN FUTURE YEARS UP TO 22 CARS/CABS & UP TO 8 LOCOM (CO-OP LA0C8231, RIV010214)		√	√			√					
SB	T	SANBAG	4TR0101		0	0.0	0.0	SAN BERNARDINO-REDLANDS EXTENSION	4th St/Mt. Vernon	Grove/Central	EXTEND RAIL SERVICE TO REDLANDS (10 MILES); RAIL TECHNOLOGY TBD; 15-MIN. FREQ. DAILY	Assume commuter rail until SANBAG Board adopts preferred alternative							√			

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SB	T	SANBAG	4TL104		0	0.0	0.0	COUNTYWIDE LOCAL TRANSIT			COUNTYWIDE LOCAL TRANSIT SERVICE										√	
SB	T	SCRRA	4CR04		0	0.0	0.0	METROLINK COMMUTER RAIL	Countywide		SERVICE EXPANSION; SB LINE 72 DAILY TRAINS, RVERSIDE LINE 46 DAILY TRAINS, IEOC LINE 28 DAILY TRAINS	APPROX. 2015 THROUGH 2035									√	
SB	T	VICTOR VALLEY TRANSIT AUTHORITY	20010124	20010124	0	0.0	0.0	BUS PURCHASE			BUS SYSTEM - EXPANSION-ALT FUEL 1 BUS FOR FY 02 - VEHICLE FOR ADELANTO TO MEET NEW HEADWAYS		√	√	√							
SB & OR	T	CNSSTC	HSRT0705		0	0.0	0.0	CAL-NEVADA SUPER SPEED TRAIN	ANAHEIM	ONTARIO	CAL-NEVADA SUPER SPEED TRAIN: ANAHEIM TO ONTARIO									√		
VE	S	CALTRANS	11704	11704	1	15.0	0.0	SR-1	AT PLEASANT VALLEY ROAD		IN OXNARD, AT PLEASANT VALLEY RD - MODIFY IC DIRECT FLY-OVER FOR PLEASANT VALLEY ROAD AND DIRECT TWO-LANE BI-DIRECTINAL ROADWAY FROM RICE AVENUE TO ROUTE 1 HEADING SOUTH.	MODIFY IC DIRECT FLY-OVER FOR PLEASANT VALLEY ROAD AND DIRECT TWO-LANE BI-DIRECTINAL ROADWAY FROM RICE AVENUE TO ROUTE 1 HEADING SOUTH.	√	√	√							
VE	S	CALTRANS	1167B	1167B	23	3.5	11.4	SR-23 (MOORPARK AVE)	HIGHWAY 118	HIGHWAY 101	IN THOUSAND OAKS & MOORPARK WIDEN RT 23 FROM HWY 118 TO HWY 101 (WIDEN FROM 4 TO 6 LANES) ALTERNATIVE 1 (ENGR. = SUPPORT COSTS) (T21-#1142) INC SOUNDWALLS, ITS FEATURES	WIDEN FROM 4 TO 6 LANES	√	√		√						
VE	S	MOORPARK	VEN051213	VEN051213	23	13.1	13.6	SR-23 (MOORPARK AVE)	3RD STREET	CASEY STREET	IN MOORPARK ROUTE 23 MOORPARK AVE FROM 3RD ST TO CASEY ST WIDEN FROM 2 LANES TO 1 LANE NB AND 2 LANES SB. REALIGN FIRST ST/POINDEXTER INTERSECTION AND UPGRADE RAIL CROSSING	WIDEN FROM 1 LANE EACH DIR TO 1 LANE NORTHBOUND AND 2 LANES SOUTHBOUND	√	√					√			
VE	S	CALTRANS	VEN011205 (PART 1)	VEN011205 (PART 1)	101	0.2	4.0	US-101	VENTURA COUNTY LINE	WESTLAKE BLVD	FROM VENTURA COUNTY LINE TO WESTLAKE BLVD RESTRIPE LANES FOR TRANSITITON, BOTH N/B AND S/B LANES	RESTRIPE LANES FOR TRANSITITON, BOTH N/B AND S/B LANES	√	√						√		
VE	S	CALTRANS	VEN011205 (PART 2)	VEN011205 (PART 2)	101	0.2	4.0	US-101	WESTLAKE BLVD	HAMPSHIRE ROAD	FROM WESTLAKE BLVD TO HAMPSHIRE ROAD N/B ONLY: CONVERT THE AUXILIARY LANE BETWEEN WESTLAKE BLVD N/B ON-RAMP AND HAMPSHIRE ROAD N/B OFF-RAMP TO MIXED FLOW LANE (FROM 4 TO 5 LANES)	N/B ONLY: CONVERT THE AUXILIARY LANE BETWEEN WESTLAKE BLVD N/B ON-RAMP AND HAMPSHIRE ROAD N/B OFF-RAMP TO MIXED FLOW LANE (FROM 4 TO 5 LANES)	√	√						√		
VE	S	CALTRANS	VEN011205 (PART 3)	VEN011205 (PART 3)	101	0.2	4.0	US-101	HAMPSHIRE ROAD	CONEJO SCHOOL ROAD	FROM HAMPSHIRE ROAD TO CONEJO SCHOOL ROAD S/B ONLY: ADD AUXILIARY LANE FROM CONEJO SCHOOL UNDERCROSS TO HAMPSHIRE RD OFF-RAMP (5 TO 6 LANES) N/B ONLY: WIDEN TWO BRIDGES - HAMPSHIRE ROAD UNDERCROSS AND CONEJO SCHOOL ROAD UNDERCROSS TO ACCOMMODATE THE WIDENING ON THE HIGHWAY.	S/B ONLY: ADD AUXILIARY LANE FROM CONEJO SCHOOL UNDERCROSS TO HAMPSHIRE RD OFF-RAMP (5 TO 6 LANES) N/B ONLY: WIDEN TWO BRIDGES - HAMPSHIRE ROAD UNDERCROSS AND CONEJO SCHOOL ROAD UNDERCROSS TO ACCOMMODATE THE WIDENING ON THE HIGHWAY.	√	√						√		
VE	S	CALTRANS	VEN011205 (PART 4)	VEN011205 (PART 4)	101	0.2	4.0	US-101	SR23 CONNECTOR RAMP TO 101	RANCHO ROAD	FROM SR23 CONNECTOR RAMP TO 101 TO RANCHO ROAD S/B ONLY: RESTRIPE TO SIX LANES FROM THE INTERCHANGE TO THE HAMPSHIRE ROAD OFF-RAMP (INCLUDES 2 LANES FROM THE SR 23 ON-RAMP TO US 101 THAN TURNS INTO MIXED FLOW LANES UNTIL THEY END AS PART OF THE HAMPSHIRE ROAD OFF RAMP (ALONG WITH THE AUX LANE)	S/B ONLY: RESTRIPE TO SIX LANES FROM THE INTERCHANGE TO THE HAMPSHIRE ROAD OFF-RAMP (INCLUDES 2 LANES FROM THE SR 23 ON-RAMP TO US 101 THAN TURNS INTO MIXED FLOW LANES UNTIL THEY END AS PART OF THE HAMPSHIRE ROAD OFF RAMP (ALONG WITH THE AUX LANE)	√	√						√		
VE	S	CALTRANS	VEN011205 (PART 5)	VEN011205 (PART 5)	101	0.2	4.0	US-101	MOORPARK ROAD	SR 23 CONNECTOR	FROM MOORPARK ROAD TO SR 23 CONNECTOR N/B ONLY: ADD AUX LANE FROM S/B 23 TO N/B 101 ON RAMP TO MOORPARK ROAD OFF-RAMP (4 TO 5 LANES)	N/B ONLY: ADD AUX LANE FROM S/B 23 TO N/B 101 ON RAMP TO MOORPARK ROAD OFF-RAMP (4 TO 5 LANES)	√	√						√		
VE	S	CALTRANS	VEN011205 (PART 6)	VEN011205 (PART 6)	101	0.2	4.0	US-101	NORTHBOUND OFF RAMP		AT NORTHBOUND OFF RAMP REALIGN AND WIDEN MOORPARK RD N/B OFF-RAMP FROM 1 TO 2 LANES	REALIGN AND WIDEN MOORPARK RD N/B OFF-RAMP FROM 1 TO 2 LANES	√	√						√		
VE	S	CALTRANS	VEN011205 (PART 7)	VEN011205 (PART 7)	101	0.2	4.0	US-101	SR23	S/B US 101	FROM SR23 TO S/B US 101 RESTRIPE THE CONNECTOR FROM 1 TO 2 LANES	RESTRIPE THE CONNECTOR FROM 1 TO 2 LANES	√	√						√		
VE	S	CALTRANS	VEN011205 (PART 8)	VEN011205 (PART 8)	101	0.2	4.0	US-101	S/B SR-23	N/B US 101	FROM S/B SR-23 TO N/B US 101 RESTRIPE THE CONNECTOR FROM 1 TO 2 LANES	RESTRIPE THE CONNECTOR FROM 1 TO 2 LANES	√	√						√		
VE	S	THOUSAND OAKS	VEN056406	VEN056406	101	7.9	0.0	WENDY DR	AT RTE 101(WIDEN OVER FREEWAY)		ROUTE 101 AT WENDY INTERCHANGE IMPROVEMENTS INCLUDING WENDY DRIV BRIDGE WIDENING ACROSS ROUTE 101 FROM 4 TO 6 LANES; NB OFF-RAMP 1 LANE EXITING 101 FLARING TO 3 LANES AT WENDY; SB ON-RAMP 2 LANES EXITING WENDY TAPERING TO 1 LANE ENTERING 101	WIDEN FROM 4 TO 6 LANES	√	√					√			
VE	S	CAMARILLO	VEN031226	VEN031226	101	12.2	12.2	US-101	PLEASANT VALLEY ROAD		IN CAMARILLO ROUTE 101 AT PLEASANT VALLEY ROAD IMPROVE INTERSECTION WITH SOUTHBOUND RAMPS - WIDEN ONRAMP ENTRANCE FROM 1 TO 2 LANES AND ADD TURN LANES	WIDEN SOUTHBOUND ON RAMP ENTRANCE FROM 1 TO 2 LANES	√	√						√		

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VE	S	CALTRANS	10495	10495	101	12.7	14.2	US-101	ROUTE 34(LEWIS RD)	ARNEILL	IN CAMARILLO AT RT 34 (LEWIS RD) - RECONSTRUCT NORTH & SOUTH SIDE OF INTERCHANGE. CONSTRUCT "BUTTON-HOOK" NB AND SB ON & OFF RAMPS TO ADJACENT FRONTAGE RDS BETWEEN ROUTE 34 & ARNEILL	CONSTRUCT "BOTTON-HOOK" NORTHBOUND AND SOUTHBOUND ON AND OFF RAMPS TO ADJACENT FRONTAGE ROADS BETWEEN ROUTE 34 AND ARNEILL	√	√	√							
VE	S	CAMARILLO	VEN54020	VEN54020	101	16.6	17.0	US-101	AT AIRPORT NORTH (SPRINGVILLE)		IN CAMARILLO CONSTRUCT AIRPORT NORTH (SPRINGVILLE) INTERCHANGE (CONNECTING FUTURE EXTENSIONS OF VERDULERA ST & PONDEROSA DR) INTERSECTING US 101	CONSTRUCT INTERCHANGE CONNECTING FUTURE EXTENSIONS OF VERDULERA ST & PONDEROSA DR	√	√				√				
VE	S	CAMARILLO	VEN051210	VEN051210	101	17.9	17.9	US-101	CENTRAL AVE		IN CAMARILLO RECONFIGURE CENTRAL AVENUE/ROUTE 101 INTERCHANGE	WIDEN BRIDGE OVER FREEWAY FROM 1 TO 2 LANES IN EACH DIRECTION	√							√		
VE	S	OXNARD	VEN051006	VEN051006	101	18.8	19.7	DEL NORTE BL	VENTURA BLVD	ROUTE 101 SOUTHBOUND RAMPS	IN OXNARD AT DEL NORTE BLVD - WIDEN DEL NORTE FROM 2 LN TO 4 LNS PLUS LEFT-TURN LANES. ADD NB LOOP ON RAMP.	WIDEN DEL NORTE FROM 2 LN TO 4 LNS PLUS LEFT-TURN LANES. ADD NB LOOP ON RAMP (see below)	√							√		
VE	S	OXNARD	VEN051006 Part 1 of 5	VEN051006	101	18.8	19.7	RTE 101 SB on ramp at Del Norte	Del Norte	Rte 101	IN OXNARD AT DEL NORTE BLVD - WIDEN DEL NORTE FROM 2 LN TO 4 LNS PLUS LEFT-TURN LANES. ADD NB LOOP ON RAMP.	Widen existing 1 lane diamon on ramp to have 2 lanes at Del North								√		
VE	S	OXNARD	VEN051006 Part 2 of 5	VEN051006	101	18.8	19.7	RTE 101 SB offramp at Del Norte	Rte 101	Del Norte	IN OXNARD AT DEL NORTE BLVD - WIDEN DEL NORTE FROM 2 LN TO 4 LNS PLUS LEFT-TURN LANES. ADD NB LOOP ON RAMP.	Widen Existing diamond offramp from 1 to 2 lanes								√		
VE	S	OXNARD	VEN051006 Part 3 of 5	VEN051006	101	18.8	19.7	Del Norte NB on ramp at Del Norte	Del Norte	Rte 101	IN OXNARD AT DEL NORTE BLVD - WIDEN DEL NORTE FROM 2 LN TO 4 LNS PLUS LEFT-TURN LANES. ADD NB LOOP ON RAMP.	Replace existing one-lane diamond ramp with a new loop ramp								√		
VE	S	OXNARD	VEN051006 Part 4 of 5	VEN051006	101	18.8	19.7	Rte 101 NB off ramp at Del Norte	Del Norte	Rte 101	IN OXNARD AT DEL NORTE BLVD - WIDEN DEL NORTE FROM 2 LN TO 4 LNS PLUS LEFT-TURN LANES. ADD NB LOOP ON RAMP.	Widen existing diamond off ramp from 1 to 2 lanes								√		
VE	S	OXNARD	VEN051006 Part 5 of 5	VEN051006	101	18.8	19.7	Del Norte	Ventura Blvd.	Rte 101 SB Ramps	IN OXNARD AT DEL NORTE BLVD - WIDEN DEL NORTE FROM 2 LN TO 4 LNS PLUS LEFT-TURN LANES. ADD NB LOOP ON RAMP.	Widen Bridge from 2 to 4 lanes								√		
VE	S	OXNARD	343	343	101	20.1	0.0	US-101	AT RICE AVE (SANTA CLARA)		IN OXNARD AT RICE AVE (SANTA CLARA) RECONSTRUCT INTERCHANGE (CONSTRUCT MODIFIED CLOVERLEAF INTERCHANGE) (T21-#664) (SAFETEA-LU #1565)□	CONSTRUCT MODIFIED CLOVERLEAF INTERCHANGE	√	√				√				
VE	S	OXNARD	343	343	101	20.1	0.0	RTE 101	RICE AVE	DEL NORTE BLVD	ADD AUX LANES FROM RICE TO DEL NORTE FROM 6 TO 8 LANES							√				
VE	S	OXNARD	343	343	101	20.1	0.0	RICE AVE	VENTURA BLVD	SB RTE 101 RAMPS	WIDEN BRIDGE OVER 101 FROM 2 TO 6 LANES							√				
VE	S	OXNARD	343	343	101	20.1	0.0	RTE 101 SB ON RAMP	RICE AVE	RTE 101	WIDEN DIAMOND ONRAMP FROM 1 TO 2 LANES AT RICE TAPPERIN TO 1 AT THE 101							√				
VE	S	OXNARD	343	343	101	20.1	0.0	RTE 101 SB OFF RAMP	RTE 101	RICE AVE	WIDEN DIAMOND OFFRAMP FROM 1 LANE TO 2 LANES AT 101 FLARING TO 3 LANES AT RICE							√				
VE	S	OXNARD	343	343	101	20.1	0.0	RTE 101 NB ON RAMP	RICE AVE	RTE 101	ADD ONE-LANE DIRECT ONRAMP FROM SB RICE ONLY TO NB 101							√				
VE	S	OXNARD	343	343	101	20.1	0.0	RTE 101 NB ON RAMP AT RICE AVE	RICE AVE	RTE 101	REPLACE EXISTING ONE-LANE HOOK ONRAMP WITH LOOP ON RAMP FROM NB RICE ONLY TO NB 101, 2 LANES AT RICE TAPERING TO 1 LANE AT 102							√				
VE	S	OXNARD	343	343	101	20.1	0.0	RTE 101 NB OFFRAMP AT	RTE 101	RICE AVE	REPLACE EXISTING 1-LANE HOOK OFFRAMP WITH DIAMOND OFF RAMP 2 LANES AT 101 FLARING TO 3 LANES AT RICE							√				
VE	S	CALTRANS	6073	6073	101	22.0	24.0	US-101	ROUTE 232	MONTALVO SPUR OVERHEAD	NEAR OXNARD FROM RT 232 TO MONTALVO SPUR OVERHEAD - WIDEN ROADWAY, RECONSTRUCT BRIDGE, AND MODIFY INTERCHANGES FROM 6 TO 8 LANES WITH 4 AUXILIARY LANES (BOTH DIRECTIONS) (EA 06074)	WIDEN FROM 6 TO 8 LANES WITH 4 AUXILIARY LANES (BOTH DIRECTIONS)	√	√	√							
VE	S	OXNARD	VEN54125	VEN54125	101	22.1	0.0	US-101	OXNARD BLVD.		IN OXNARD MODIFY OXNARD BLVD INTERCHANGE AT HWY 101	CONSTRUCT FULL DIAMOND INTERCHANGE	√	√	√							
VE	S	SAN BUENA-VENTURA	VEN54037	VEN54037	101	24.6	0.0	US-101	VICTORIA INTERCHANGE		IN SAN BUENAVENTURA-FRM 4 TO 6 LANE AT VICTORIA INTERCHANGE RECONFIGURATION: IMPR N/B OFFRAMP (PHASE II). NB OFFRAMP IS BEING LENGTHENED & WIDENED TO INCREASE STORAGE CAPACITY. NB ONRAMP IS BEING REALIGNED TO CONNECT BETTER WITH NB OFFRAMP	FROM 4 TO 6 LANES AT INTERCHANGE. THE NORTHBOUND OFFRAMP IS BEING LENGTHENED AND WIDENED TO INCREASE ITS STORAGE CAPACITY. THE NORTHBOUND ON RAMP IS BEING REALIFGNED TO CONNECT BETTER WITH THE NORTHBOUND OFFRAMP	√	√	√							
VE	S	SAN BUENA-VENTURA	VEN010202	VEN010202	101	30.1	30.1	US-101	AT CALIFORNIA STREET		RECONFIGURE N/B CALIFORNIA ST OFFRAMP (RECONFIGURE RAMP TO TERMINATE AT OAKS ST INSTEAD OF THE CURRENT CALIFORNIA ST LOCATION)	RECONFIGURE NORTHBOUND OFF-RAMP TO TERMINATE AT OAKS ST NOT CALIFORNIA STREET	√						√			

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															2008	2009	2010	2012	2014	2020	2030	2035
VE	S	CALTRANS	VEN070201	VEN070201	101	39.8	43.6	US-101			ADD 1 HOV LANE EACH DIR FROM MOBIL PIER ROAD UC NEAR MUSSEL SHOALS IN VENTURA CO. TO S/O CASITAS PASS RD IN SANTA BARBARA CO. (PM R 39.8 TO 2.2). HOV LANES ARE PROPOSED TO BE EFFECTIVE PART-TIME (AM & PM PEAK PERIODS) ONLY. EXTEND ON AND OFF-LANES AT MUSSEL SHOALS & LA CONCHITA FOR BETTER ACCELERATION AND DECELERATION, BUT KEEP AS SINGLE LANES. CLOSE THE EXISTING 3 MEDIAN OPENINGS LOCATED NEAR THE COMMUNITIES OF LA CONCHITA AND MUSSEL SHOALS AND TANK FARM.	Expressway will remain an expressway because the existing vehicle parking and bike lane located on southbound Highway 101 within the project segment will remain.	√					√			
VE	S	MOORPARK	12020	12020	118	16.9	17.3	SR-118 (LOS ANGELES AVE)	LETA YANCY (STREET PREVIOUSLY NAMED LIBERTY BELL)	MAUREEN	IN MOORPARK LOS ANGELES AVE AT SHASTA AVE AND MAUREEN LN INSTALL SIGNALS AT SHASTA AVE AND WIDEN FROM 4 TO 6 LANES BETWEEN MAUREEN AND LETA YANCY	WIDENING FROM 4 TO 6 LANES	√	√			√					
VE	S	MOORPARK	VEN34089	VEN34089	118	17.4	17.8	SR-118 (LOS ANGELES AVE)	ROUTE 23 (MOORPARK AVE)	E/O SPRING	IN MOORPARK L..A. AVE FROM ROUTE 23 (MOORPARK AVE) TO E/O SPRING CONSTRUCT SIDEWALKS, REALIGN ROADWAY AND WIDEN FROM 4 TO 6 LANES	WIDEN FROM 4 TO 6 LANES	√	√				√				
VE	S	CALTRANS	VEN011208	VEN011208	118	18.3	27.3	SR-118	TAPO CANYON RD	NEW LOS ANGELES AVE	ADD ONE MIXED FLOW LANE IN EACH DIRECTION FROM TAPO CANYON ROAD TO NEW LOS ANGELES AVENUE (FROM 6 TO 8). WIDEN THE SR23/118 CONNECTORS FROM 2 TO 3 LANES.	WIDEN FROM 6 TO 8 LANES; WIDEN 23/118 CONNECTORS FROM 2 TO 3 LANES	√							√	
VE	S	SIMI VALLEY	6566	6566	118	21.9	0.0	SR-118	AT ALAMOS CANYON ROAD		NEAR SIMI VALLEY AT ALAMOS CYN RD ADD RAMPS	ADD ONE-LANE RAMPS AT E/B OFF RAMP AND W/B ON RAMP (FULL DIAMOND INTERCHANGE)	√						√			
VE	S	SIMI VALLEY	VEN031207	VEN031207	118	23.8	23.8	SR-118	FIRST STREET		IN SIMI VALLEY AT FIRST STREET WIDEN BASE OF WB OFF RAMP FROM 2 TO 4 LANES, WIDEN FRIST STREET FROM 500 FEET SOUTH OF FREEWAY FROM 3 TO 6 LANES, INSTALL ISGNAL AT WESTBOUND RAMP AND IMPROVE SIGNAL AT EAST BOUND RAMP.	IN SIMI VALLEY AT FIRST STREET WIDEN BASE OF WB OFF RAMP FROM 2 TO 4 LANES, WIDEN FRIST STREET FROM 500 FEET SOUTH OF FREEWAY FROM 3 TO 6 LANES,	√	√	√							
VE	S	SIMI VALLEY	VEN031208	VEN031208	118	23.8	24.8	SR-118	ERRINGER ROAD		IN SIMI VALLEY AT ERRINGER ROAD WIDEN BASE OF WB OFFRAMP FROM 2 TO 4 LANES, WIDEN ERRINGER FROM 500 FEET NORTH OF FREEWAY TO 500 FEET SOUTH OF FREEWAY FROM 5 TO 7 LANES, IMPROVE SIGNALS	IN SIMI VALLEY AT ERRINGER ROAD WIDEN BASE OF WB OFFRAMP FROM 2 TO 4 LANES, WIDEN ERRINGER FROM 500 FEET NORTH OF FREEWAY TO 500 FEET SOUTH OF FREEWAY FROM 5 TO 7 LANES, IMPROVE SIGNALS	√	√	√							
VE	S	CALTRANS	1238J	1238J	118	27.3	32.6	SR-118	TAPO ST	KUEHNER	IN SIMI VALLEY WIDEN RT 118 EB FROM TAPO ST TO KUEHNER (WIDEN FROM 3 TO 4 LNS EB) & CONSTRUCT SOUNDWALLS & ITS ITEMS (ITS ITEMS RT 23 / LA CNTY LINE? & 4 BRIDGE WIDENINGS	FROM 3 TO 4 LANES EASTBOUND	√	√		√						
VE	S	CALTRANS	VEN071106	VEN071106	118	27.3	32.6	SR-118	TAPO CANYON RD	LA COUNTY LINE	IN SIM VLY WIDEN RTE 118 WB LA COUNTY LN TO TAPO CYN FR 3 TO 4 LANES (TAPO CYN TO KUEHNER) AND FR 4 TO 5 LANES (KUEHNER TO COUNTY LN); WIDEN EB TAPO CYN TO TAPO FR 3 TO 4 LANES; WIDEN EB KUEHNER TO LA CNTY LINE FR 4 TO 5 LAN		√	√				√				
VE	S	CALTRANS	VEN010201	VEN010201	118	32.0	32.5	SR-118	AT ROCKY PEAK ROAD		IN SIMI VALLEY AT ROCKY PEAK RD CONSTRUCT W/B ONE LANE ONRAMP & E/B ONE LANE OFFRAMP TO PROVIDE FULL DIAMOND INTERCHANGE	CONSTRUCT WESTBOUND ONE LANE ONRAMP & EASTBOUND ONE LANE OFFRAMP TO PROVIDE FULL DIAMOND INTERCHANGE	√	√		√						
VE	L	CAMARILLO	VEN54019	VEN54019	0	0.0	0.0	ADOLFO RD EXTENSION	EXTEND ROAD EASTERLY	TO CAMARILLO SPRINGS RD/US 101	IN CAMARILLO ADOLFO RD EXTENSION EXTEND ROAD EASTERLY TO CAMARILLO SPRINGS RD/US 101 (TWO-LANES UNDIVIDED ROAD)	2 LANE UNDIVIDED ROAD	√							√		
VE	L	CAMARILLO	VEN031227	VEN031227	0	0.0	0.0	CENTRAL AVE	ROUTE 101 NORTH BOUND RAMPS	CITY LIMIT	WIDEN CENTRAL AVENUE FROM 2 TO 4 LANES (PLUS BIKE LANES) FROM ROUTE 101 NB RAMPS TO CITY LIMIT (0.4 MILES) PLUS SIGNALS @ RTE 101 RAMPS.	FROM 2 TO 4 LANES	√	√		√						
VE	L	CAMARILLO	VEN051211	VEN051211	0	0.0	0.0	LAS POSAS RD	VENTURA BLVD	PLEASANT VALLEY ROAD	LAS POSAS ROAD FROM VENTURA BLVD TO PLEASANT VALLEY ROAD WIDEN FROM 2 TO 6 LANES	WIDEN FROM 2 TO 6 LANES	√							√		
VE	L	CAMARILLO	VEN991218	VEN991218	0	0.0	0.0	PLEASANT VALLEY RD	CALLEGUAS	ROUTE 101	PLEASANT VALLEY RD - WIDEN FROM 2 TO 4 LANES & BIKE LANES FOR 1.7 MILES FROM CALLEGUAS CR TO RT 101	WIDEN FROM 2 TO 4 LANES	√	√	√							
VE	L	CAMARILLO	VEN990305	VEN990305	0	0.0	0.0	PONDEROSA DR EXTENSION	EARL JOSEPH	VENTURA BLVD	CONSTRUCT PONDEROSA EXTENSION FROM EARL JOSEPH TO VENTURA BL, AND VENTURA BL EXTENSION FROM PONDEROSA TO EAST OF CENTRAL AVE INCLUDING BIKE LANES (EACH DIRECTION FROM 0 TO 2)	1 LANE EACH DIRECTION	√	√		√						

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VE	L	CAMARILLO	VEN071104	VEN071104	0	0.0	0.0	PONDEROSA EXTENSION	EARL JOSEPH	VENTURA BLVD	CONSTRUCT PONDEROSA EXTENSION FROM EARL JOSEPH TO VENTURA BL, INCLUDING BIKE LANES (EACH DIRECTION FROM 0 TO 4)	2 LANE EACH DIRECTION	√						√			
VE	L	CAMARILLO	VEN040502	VEN040502	0	0.0	0.0	SANTA ROSA RD	UPLAND ROAD	WOODCREEK ROAD	SANTA ROSA ROAD FROM UPLAND ROAD TO WOODCREEK ROAD WIDEN FROM TWO TO FOUR LANES AND ADD BIKE LANES	WIDEN FROM 2 TO 4 LANES	√	√				√				
VE	L	MOORPARK	5A0744		0	0.0	0.0	ARROYO DR	e/b SR-118 off-ramp at Collins Drive	City easterly limits	WIDEN ARROW DRIVE FROM 2 TO 4 LANES	Exist Config: 2 lanes (one in each direction)								√		
VE	L	MOORPARK	5A0742		0	0.0	0.0	NORTHHILLS PKWY	w/b SR-118 off-ramp at Princeton	City westerly limits at SR-118	CONSTRUCT 4-LANE FREEWAY CONNECTION ON NEW ALIGNMENT	Exist Config: none									√	
VE	L	MOORPARK	5A0743		0	0.0	0.0	PRINCETON AVE	SR-118 offramp at Princeton Ave	Spring Road	WIDEN, REALIGN AND RECONSTRUCT FROM 2 TO FOUR LANES	Exist Config: 2 lanes (one in each direction)								√		
VE	L	OXNARD	VEN34095	VEN34095	0	0.0	0.0	COLONIA RD/CAMINO DEL SOL	ROUTE 1	ENTRADA DRIVE	IN OXNARD COLONIA RD/CAMINO DEL SOL RT 1 TO ENTRADA DR CONSTRUCT 4 LANES	CONSTRUCT 4 LANES	√	√					√			
VE	L	OXNARD	5G0405		0	0.0	0.0	GONZALES RD	SR-1 (Oxnard Blvd)	UPRR tracks	CONSTRUCT 6 LANE GRADE SEPARATION AT SR-1 (OXNARD BLVD) AND UPRR TRACKS WITH LEFT TURN POCKETS	Exist Config: None							√			
VE	L	OXNARD	VEN34094	VEN34094	0	0.0	0.0	HUENEME RD	SAVIERS	ARCTURUS	IN OXNARD HUENEME RD SAVIERS TO ARCTURUS WIDEN AND CONSTRUCT FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√				√				
VE	L	OXNARD	VEN54137	VEN54137	0	0.0	0.0	PLEASANT VALLEY RD	OLDS ROAD	ROUTE 1	IN OXNARD WIDEN PLEASANT VALLEY FROM OLDS RD TO RT 1 & INSTALL SIGNAL AT OLDS/PLEASANT VALLEY RD WIDEN 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√	√							
VE	L	OXNARD	5A0402		0	0.0	0.0	ROSE AVE	at Gonzalez Rd		CONSTRUCT 4 LANE FLYOVER WITH LEFT TURN POCKETS	Exist Config:								√		
VE	L	OXNARD	5G0404		0	0.0	0.0	ROSE AVE	at SR-34 (E. Fifth St)		CONSTRUCT 4 LANE GRADE SEPARATION WITH LEFT TURN POCKETS	Exist Config: None							√			
VE	L	OXNARD	5G0403		232	0.0	0.0	SR-232 (VINEYARD AVE)	Oxnard Blvd	Saint Mary's Drive	CONSTRUCT 6 LANE GRADE SEPARATION OVER UPRR TRACKS	Exist Config: None							√			
VE	L	OXNARD	5A0401		0	0.0	0.0	VICTORIA AVE	at Gonzales Rd		CONSTRUCT 4 LANE FLYOVER WITH LEFT TURN POCKETS	Exist Config:								√		
VE	L	SAN BUENA-VENTURA	5A0723		0	0.0	0.0	OLIVAS PARK DR	Perkin Ave	Auto Center Drive	CONSTRUCT 4-LANE EXTENSION	Exist Config: None				√						
VE	L	SIMI VALLEY	5A0730		0	0.0	0.0	LOS ANGELES AVE	Segment 1: 200' E/O Orchid Avenue Segment 2: 200' E/O of Sequoia Avenue	Segment 1: 100' W/O Sycamore Drive Sement 2: 100' W/O of Darrah Avenue	WIDEN SOUTH SIDE OF LOS ANGELES AVENUE BY ADDING A LANE (FROM 4 TO 5 LANES)	Exist Config: Segment 1: 100' right-of-way with 4 lanes & a divided median Segment 2: 100' right-of-way with 4 lanes & a divided median					√					
VE	L	SIMI VALLEY	5A0735		0	0.0	0.0	LOS ANGELES AVE	Approximately 1250' E/O Sycamore Drive	Approximately 1000' E/O Sycamore Drive	WIDEN TAPO CHANNEL BRIDGE AT LOS ANGELES AVENUE (15' ON THE NORTH SIDE & 20' ON THE SOUTH SIDE). THIS INCLUDES ADDITION OF ONE LANE IN EACH DIRECTION (FROM 4 TO 6 LANES), RELOCATION OF THE EXISITING UTILITIES & MODIFICATIONS TO UPSTREAM & DOWN STREAM OF THE CHANNEL.	Exist Config: 60' right-of-way with 4 lanes					√					
VE	L	SIMI VALLEY	5A0736		0	0.0	0.0	NEW FACILITY	between Flanagan Drive	and Evening Sky Dr.	PROVIDES THE MISSING LINK (A 60' ROAD WITH TWO LANES) BETWEEN TWO STREETS (FLANAGAN DR. & EVENING SKY DR.). FROM 0 TO 2 LANES)	Exist Config: Empty land; 0 lanes					√					
VE	L	SIMI VALLEY	VEN051002	VEN051002	0	0.0	0.0	OLSON RD	PRESIDENTIAL DRIVE	SIMI VALLEY CITY LIMIT	OLSON ROAD WIDENING FROM FOUR TO SIX LANES FROM PRESIDENTIAL DRIVE TO SIMI VALLEY CITY LIMIT, 2700 FEET	WIDEN FROM 4 TO 6 LANES	√	√			√					
VE	L	SIMI VALLEY	5A0734		0	0.0	0.0	STEARNS ST	Cochran Street	Leeds Street	WIDENING OF STEARNS STREET TO ADD A LANE IN EACH DIRECTION (FROM 2 TO 4 LANES)	Exist Config: One lane in each direction					√					
VE	L	SIMI VALLEY	5A0728		0	0.0	0.0	TAPO CANYON RD	Walnut Street	Lost Canyon Rd.	WIDEN TAPO CANYON ROAD TO ADD AN ADDITIONAL LANE IN EACH DIRECTION (FROM 2 TO 4 LANES) AND A DIVIDED CENTER MEDIAN.	Exist Config: One lane in each direction						√				
VE	L	SIMI VALLEY	5A0738		0	0.0	0.0	TAPO ST	Walnut Street	Presidio Dr.	WIDENING OF TAPO STREET TO ADD A LANE IN EACH DIRECTION (FROM 2 TO 4 LANES)	Exist Config: One lane in each direction					√					
VE	L	THOUSAND OAKS	VEN34305	VEN34305	0	0.0	0.0	HILLCREST	RANCHO CONEJO	CAMINO DOS RIOS	IN THOUSAND OAKS HILLCREST FROM RANCHO CONEJO TO CAMINO DOS RIOS WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
VE	L	THOUSAND OAKS	VEN34304	VEN34304	0	0.0	0.0	OLD CONEJO RD	REINO	WENDY	IN THOUSAND OAKS OLD CONEJO RD FROM REINO TO WENDY WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√	√						√		
VE	L	VENTURA COUNTY	5A0725		0	0.0	0.0	CENTRAL AVE	Santa Clara Ave.	Camarillo City Limits	WIDEN FROM TWO LANES TO FOUR LANES	Exist Config: 2 lane Arterial								√		
VE	L	VENTURA COUNTY	5A0720		0	0.0	0.0	HARBOR BL	Oxnard City Limits	Ventura City Limits	WIDEN FROM TWO LANES TO FOUR LANES, INCLUDING REPLACEMENT OR WIDENING OF EXISTING BRIDGE	Exist Config: 2 lane Arterial									√	
VE	L	VENTURA COUNTY	VEN011202	VEN011202	0	0.0	0.0	HUENEME RD	OXNARD CITY LIMIITS	RICE ROAD	HUENEME RD FROM OXNARD CITY LIMITS TO RICE RD - WIDEN FROM 2 TO 4 LANES	WIDEN FROM 2 TO 4 LANES	√							√		
VE	L	VENTURA COUNTY	VEN54122 + VEN040501	VEN54122 + VEN040501	0	0.0	0.0	LEWIS RD	RT 101	HUENEME ROAD	NEAR CAMARILLO LEWIS RD WIDEN FROM 2 TO 4 LANES PLUS BIKE LANES BETWEEN RT 101 & HUENEME RD, & PROVIDE SIGNAL IMPROVEMENTS - CON PHASE (PE & ROW IN 07-VEN54122) - INCL FINANCE COST	Widen from 2 to 4 Lanes	√	√		√						
VE	L	VENTURA COUNTY	5A0721		0	0.0	0.0	PLEASANT VALLEY RD	Dodge Rd	Las Posas Road	WIDEN FROM TWO TO FOUR LANES	Exist Config: 2 lane Arterial									√	

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															2008	2009	2010	2012	2014	2020	2030	2035
VE	L	VENTURA COUNTY	5A0719		0	0.0	0.0	SANTA CLARA AVE	n/o Oxnard City Limits	SR 118	WIDEN FROM TWO TO FOUR LANES	Exist Config: 2 lane Arterial								√		
VE	L	VENTURA COUNTY	VEN54132	VEN54132	0	0.0	0.0	SANTA CLARA AVE	OXNARD CITY LIMIITS	ROUTE 118	SANTA CLARA AVE IMPROVEMENTS - S PH11 BTW OXANRD CITY LIMITS & SR 118 WIDEN TO ADD EXTRA LANE IN EACH DIRECTION (FROM 2 TO 4 LANES TOTAL) GEOM 7 DRAIN IMPR. OVERLAN, MODIFY SIGNALS	ADD EXTRA LANES IN EACH DIRECTION FROM 2 TO 4 LANES)	√	√	√							
VE	L	VENTURA COUNTY	5A0716		118	0.0	0.0	SOMIS RD / SR-118 / DONLON DR			WIDEN INTERSECTION, ADD TURN LANES, RALIGN DONLON ROAD (COUNTY PORTION ONLY)	Exist Config: 2 lane state highway								√		
VE	L	VENTURA COUNTY	5A0722		0	0.0	0.0	VICTORIA AVE WIDENING IMPROVEMENT - A	Gonzales Road	Ventura City Limits	WIDEN FROM FOUR LANES TO SIX LANES	Exist Config: 4 lane arterial									√	
VE	L	VENTURA COUNTY	5A0726		0	0.0	0.0	VICTORIA AVE WIDENING IMPROVEMENT - B	Gonzales Road	Oxnard City Limits	WIDEN FROM FOUR LANES TO SIX LANES	Exist Config: 4 lane arterial									√	
VE	L	VENTURA COUNTY	5A0732		0	0.0	0.0	WENDY DR	Borchard Road	Thousand Oaks City Limits	RE-STRIPE FROM TWO TO FOUR LANES; INLCUDES REPLACEMENT OR WIDENING OF EXISTING BRIDGE	Exist Config: 2 lane major arterial								√		
VE	L	VENTURA COUNTY TRANS COMMISSION (VCTC)	VEN990613	VEN990613	0	0.0	0.0	RICE RD	RTE 1	HUENEME ROAD	EXTEND RICE AVE AS 4 LANE ROAD FROM RT 1 TO HUENEME ROAD	4 LANE ROAD	√	√	√							
VE	T	GOLD COAST TRANSIT	VEN090107	VEN090107	0	0.0	0.0	ROUTE 1, 6, 4a ,& New line			EIGHT (8) CNG-FUELED 25-FOOT TO 40-FOOT BUSES FOR EXPANSION. BUSES WILL BE USED ON ALL GOLD COAST LINES TO REDUCE SPARE RATIO AND INCREASE FREQUENCY WHERE WARRANTED BY DEMAND	Reduce Route 1 headway to 15-20 minutes, reduce Route 6 headway to 15-20 minutes, reduce Route 4A headway to 30 minutes, add new Route on Victoria from Channel Islands Blvd to Telegraph Rd, on Telegraph from Victoria to Ventura Transit Center (Telegraph/Mills),20-30 minute headway. Current scheduled for existing lines, and map of new line		√			√				
VE	T	GOLD COAST TRANSIT	VEN090201	VEN090201	0	0.0	0.0	FIXED ROUTE SHUTTLE SERVICE ROUTE40			MARKET/VALENTINE INDUSTRIAL PARK SHUTTLE SERVICE ON MARKET STREET, VALENTINE ROAD, AND TELEPHONE ROAD	FIXED-ROUTE BUS SERVICE ON TELEPHONE ROAD FROM VICTORIA TO MARKET, AND ON MARKET FROM TELEPHONE TO SPERRY. 15-MINUTE PEAK SERVICE, 30-MINUTE MIDDAY AND EVENING SERVICE. (MAP AND SCHEDULE E-MAILED TO SCAG 2/3/10.)		√		√					
\	T	SIMI VALLEY	VEN031202	VEN031202	0	0.0	0.0	SIMI VALLEY TRANSIT			SIMI VALLEY TRANSIT EXPANSION TO SERVE NEW MALL - DEMONSTRATION PROJECT		√	√	√							
VE	T	SOUTH COAST AREA TRANSIT	VEN057403	VEN057403	0	0.0	0.0	VENTURA HARBOR DEMONSTRATION SERVICE			DOWNTOWN VENTURA / VENTURA HARBOR DEMONSTRATION SERVICE (3-YEAR DEMONSTRATION)		√	√	√							
VE	T	THOUSAND OAKS	VEN056411	VEN056411	0	0.0	0.0	ELDERLY/DISABLED SHUTTLE DEMONSTRATION SERVICE	THOUSAND OAKS -- @ Serior Certer at 401 Hodencamp Road	KAISER HOSPITAL WOODLAND HILLS @ DE SOTO AVE	ELDERLY/DISABLED SHUTTLE DEMONSTRATION SERVICE FROM THOUSAND OAKS TO KAISER HOSPITAL WOODLAND HILLS		√	√	√							
VE	T	VENTURA COUNTY TRANS COMMISSION (VCTC)	5CR104		0	0.0	0.0	METROLINK COMMUTER RAIL			METROLINK COMMUTER RAIL SERVICE EXPANSION	APPROX. 2015 THROUGH 2035										√
VE	T	VENTURA COUNTY TRANS COMMISSION (VCTC)	5TL04		0	0.0	0.0	COUNTYWIDE TRANSIT			COUNTYWIDE TRANSIT SERVICE EXPANSION	THROUGH 2035										√

* S = State Hwy, L = Local Hwy, T = Transit
** The actual completion date may vary, e.g. a project completed in 2016 would have a network year of 2020.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS







www.scag.ca.gov

SCAG General Fact Sheet

WHAT IS SCAG?

"SCAG" stands for the Southern California Association of Governments. As a designated Joint Powers Authority (JPA) under California law, SCAG is an association of local governments and agencies who voluntarily come together on issues of common concern. Additionally, SCAG is a Metropolitan Planning Organization (MPO) encompassing six counties, six county transportation commissions, 190 cities, and the region's Native American Tribes, assisting with regional transportation and land use planning. Under federal and state mandates, SCAG is tasked with developing a Regional Transportation Plan (RTP) and a Federal Transportation Improvement Program (FTIP) every four years. Recently with the passage of SB 375 into law, SCAG has been given the added responsibility of developing a Sustainable Communities Strategy (SCS) to address greenhouse gas emissions as an element of the RTP.

BACKGROUND

SCAG was founded in 1965, when local elected officials from 56 cities and five counties convened to create a regional planning effort for Southern California's future. In 1992 SCAG expanded their 20-member Executive Committee to include a 70-member Regional Council, responsible for helping with new federal and state mandates, as well as to provide more broad-based representation of the region.

WHAT DOES SCAG DO?

In addition to being designated as Metropolitan Planning Organization (MPO) SCAG also serves as a Council of Governments (COG) and a Regional Transportation Planning Agency (RTPA). In these roles, SCAG is responsible for identifying Southern California's transportation priorities through development of Regional Transportation Plans. SCAG is also responsible for implementing the state Regional Housing Needs Assessment (RHNA) program on behalf of Southern California. SCAG also conducts extensive growth forecasting which is provided to local governments, including critical land use and demographic data to strengthen their planning efforts. SCAG also acts as an information clearinghouse, providing mapping, forecasting, regional statistics and data to members, stakeholders and the general public, upon request. With the recent passage of SB 375 into law, SCAG is also responsible for developing a Sustainable Communities Strategy (SCS) to address greenhouse gas emissions as an element of the RTP.

HOW ARE DECISIONS MADE AT SCAG?

SCAG's governing structure is as follows:

General Assembly (GA) – SCAG is governed by the General Assembly, which annually brings together the official representatives of SCAG's membership and helps set the agency's course for the coming year. Amendments to SCAG's Bylaws also may be considered at the General Assembly. In addition, members of the General Assembly consider adoption of SCAG's General Fund budget for the next fiscal year. Finally, SCAG's incoming President, Vice President and Second Vice President are elected.

Regional Council (RC) – Decision-making occurs through SCAG's Regional Council, a governing body comprised of elected officials representing the six counties and 190 cities in the SCAG region. The board may also include representatives from each of the County Transportation Commissions and the recognized tribal governments. SCAG's policy-making process is guided by the work of three Policy Committees: Transportation; Community, Economic and Human Development; and Energy and Environment and its operations are managed by the Executive/Administration Committee. Members of the Regional Council serve on one of three Policy Committees for two-year terms. Much of the discussion and debate on the "nuts and bolts" of an issue occur in the Policy Committees and all issues considered by the Regional Council must first originate through one or more of the committees. In addition to Regional Council members, Policy Committees also include members from stakeholder organizations throughout the region.

QUICK FACTS

Region-At-A-Glance

- Six Counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura
- 190 Cities
- 38,000 Square Miles
- 19 Million People
- 15 Subregions
- 17th Largest Economy in the World

By the Numbers

- 48.8% of Total State Population
- 14.1 million Registered Vehicles
  11.1 million Licensed Drivers
- 10,457 Total Freeway & Carpool Lane Miles / 38,871 Road Lane Miles
- 5.9 million Total Households
- $60,141 Median Household Income

For More Information

Please visit the SCAG website at: www.scag.ca.gov. To schedule presentations and for all media inquiries please contact Angela Rushen, Manager of Media & Public Affairs at (213) 236-1809 or rushen@scag.ca.gov.

THE SCAG REGION



ORGANIZATIONAL RESPONSIBILITIES

- Maintain a continuous, comprehensive, and coordinated planning process (the "3 Cs") resulting in a Regional Transportation Plan (RTP) and a Federal Transportation Improvement Program (FTIP)
- Develop a Sustainable Communities Strategy (SCS) to address greenhouse gas emissions as an elelment of the RTP.
- Development of demographic projections
- Development of integrated land use, housing, employment, transportation programs and strategies for the South Coast Air Quality Management Plan
- Co-lead agency for air quality planning in the Central Coast and Southeast Desert air basin districts
- Responsible, via the federal Clean Air Act; for determining conformity and compliance with the Air Plan
- Authorized regional agency for intergovernmental review of proposed programs for federal financial assistance and direct development activities
- Review of environmental impact reports for projects having regional significance to ensure they are in line with approved regional plans
- Develop an area wide, waste treatment management plan
- Responsible for preparation of the Regional Housing Needs Assessment
- Along with the San Diego Association of Governments, and the Santa Barbara County/Cities Area Planning Council, SCAG is responsible for preparing the Southern California Hazardous Waste Management Plan

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

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