BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN	)	Application No._____
CALIFORNIA EDISON COMPANY (U 338-E)	)	
for a Permit to Construct Electrical Facilities	)	
With Voltages Between 50 kV and 200 kV:	)	
Valley South Subtransmission Project	)	

PROPONENT'S ENVIRONMENTAL ASSESSMENT: VALLEY SOUTH 115 kV SUBTRANSMISSION PROJECT

VOLUME 2 of 4

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Acronyms and Abbreviations

°C	degrees Celsius
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
A.D.	anno domini
A-1	Light Agriculture
AB	Assembly Bill
ACSR	aluminum conductor steel reinforced
ADT	average daily traffic
AGL	above ground level
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
ANSI	American National Standards Institute
AP	Alquist-Priolo
A-P	Light Agriculture with Poultry
APLIC	Avian Power Line Interaction Committee
APM	Applicant Proposed Measures
AQMP	Air Quality Management Plan
Aspen	Aspen Environmental Group
B.P.	before present
BBI	Bloom Biological Inc.
BGEPA	Bald and Golden Eagle Protection Act
Bgs	below ground surface
BMP	best management practice
BRA	Biological Resources Assessment
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupation and Safety Health Administration
Caltrans	California Department of Transportation
CAPS	Criteria Area Plant Species

CARB	California Air Resources Board
CCR	California Code of Regulations
CDC	California Department of Conservation
CDF	State of California, Department of Finance
CDFW	California Department of Fish and Wildlife (formerly called the California Department of Fish and Game)
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGP	Statewide Construction General Permit
CGS	California Geological Survey
CH_4	methane
CIWMP	Countywide Integrated Waste Management Plan
CJUTCM	California Joint Utility Traffic Control Manual
CMP	Congestion Management Program
CMS	Congestion Management System
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent
COMM	Communications
CPRC	California Public Resources Code
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSSC	California Species of Special Concern
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels

DBESP	Determination of Biological Equivalent or Superior Preservation
DHS	United States Department of Homeland Security
DOGGR	Department of Conservation/Division of Oil, Gas, and Geothermal Resources
DPM	diesel particulate matter
DPR	California Department of Parks and Recreation
DWQ	Division of Water Quality
DWR	Department of Water Resources
ECC	Emergency Command Center
EDR	Environmental Data Resources, Inc.
EIC	Eastern Information Center
EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
ENA	Electrical Needs Area
EOP	Emergency Operations Plan
EPRI	Electric Power Research Institute
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FRC	fault return conductor
FTA	Federal Transit Administration
G.O.	General Order
GBN	ground-borne noise
GBV	ground-borne vibration
GHG	greenhouse gas
GIS	geographical information system
GPS	global positioning system
GWP	global warming potential
HCP	Habitat Conservation Plan
HOV	high-occupancy vehicle
HP	horsepower

HSWA	Hazardous and Solid Waste Act
Hz	Hertz
I	Interstate
I-15	Interstate 15
I-215	Interstate 215
IOU	investor-owned public utility
IPCC	Intergovernmental Panel on Climate Change
IRWMP	Integrated Regional Watershed Management Plan
Kcmil	thousand circular mil
Kdvg, Kgb, Kpvg, Kpvt	Cretaceous-aged igneous rocks
Kgb	Cretaceous-aged gabbro
KOP	Key Observation Point
kV	kilovolt
LACM	Natural History Museum of Los Angeles County
lbs/day	pounds per day
LDL	Larson Davis Laboratories
L_{dn}	day-night average noise level
L_{eq}	equivalent noise level
L_{max}	maximum noise level
L_{min}	minimum noise level
L_n	statistical descriptor
LOS	level of service
LST	localized significance threshold
LUP	Linear Underground/Overhead Projects
L_v, VdB	vibration velocity level
LWS	light weight steel
MBTA	Migratory Bird Treaty Act
MEER	Mechanical and Electrical Equipment Room
mg/L	milligrams per liter
Mgd	million gallons per day
micro in/sec	micro inch per second

MRZ	Mineral Resource Zones
MS4s	municipal separate storm sewer systems
MVA	mega volt-amperes
MWD	Metropolitan Water District of Southern California
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NEPA	National Environmental Policy Act
NEPS	Narrow Endemic Plant Species
NFIP	National Flood Insurance Program
NIPP	National Infrastructure Protection Plan
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRA	Natural Resource Assessment
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
O&M	Operations and Maintenance
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OHGW	overhead ground wire
OHP	Office of Historic Preservation
OHWM	ordinary high water mark
OPGW	Optical Ground Wire
PCE	passenger car equivalent
PEA	Proponent's Environmental Assessment
PM_{10}	particulate matter smaller than 10 microns
$PM_{2.5}$	particles (particulates) smaller than 2.5 microns diameter
Ppm	parts per million
PPV	peak particle velocity

PRC	Public Resources Code
PRSM	Paleontological Resources Sensitivity Map
PSE	Participating Special Entity
PUHSD	Perris Union High School District
PVC	polyvinyl chloride
Qof	Quaternary older fan
Qps	Pauba Formation
Qvoa	Quaternary very old alluvium
Qvof	Quaternary very old fan
Qya	Quaternary younger alluvium
Qyf	Quaternary younger fan
Qyv	Quaternary younger valley deposits
RCA	Regional Conservation Authority
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCHCA	Riverside County Habitat Conservation Agency
RCIP	Riverside County Integrated Project
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
RCWD	Rancho California Water District
RHNA	Regional Housing Needs Assessment
RMS	root mean square
ROW	right-of-way
ROW	right-of-way
RoWD	Report of Waste Discharge
R-R	Rural Residential
RTA	Riverside Transit Agency
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
S_a	spectral acceleration

SAC	stranded aluminum conductor
SARA	Superfund Amendments and Reauthorization Act
SARWQCB	Santa Ana Regional Water Quality Control Board
SBCM	San Bernardino County Museum
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SDRWQCB	San Diego Regional Water Quality Control Board
SF6	sulfur hexafluoride
SMARA	Surface Mining and Reclamation Act
SMGB	State Mineral and Geology Board
SO_2	sulfur dioxide
SoCalGas	Southern California Gas Company
SOI	Sphere of Influence
SO_X	sulfur oxides
SPCC	Spill Prevention, Control, and Countermeasure
SR	State Route
ssp.	subspecies
SWAT	Special Weapons and Tactics
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plans
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TCR	transportation concept reports
TDM	Transportation Demand Management
TDS	total dissolved solid
TMDL	total maximum daily load
TPA	Temporary Ponded Area
TPZ	timberland preserve zone
TRC	TRC Solutions Incorporated
Trmq and Trmu	Triassic-aged metamorphic rocks

TSCA	Toxic Substances Control Act of 1976
TSP	tubular steel pole
U.S.C.	United States Code
UBC	Uniform Building Code
USA	Underground Service Alert
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Services
USGS	United States Geological Survey
VOC	volatile organic compound
WDR	Waste Discharge Requirement
WEAP	Worker Environmental Awareness Program
Winchester MAC	Winchester Municipal Advisory Council
WRCMSHCP	Western Riverside County Multiple-Species Habitat Conservation Plan

Chapter 4
Environmental Impact Assessment Summary

This section examines the potential environmental impacts of the Valley South 115 kilovolt Subtransmission Project (Proposed Project) and alternatives. The analysis of each resource category begins with an examination of the existing physical setting (baseline conditions as determined pursuant to Section 15125(a) of the California Environmental Quality Act [CEQA] Guidelines) that may be affected by the Proposed Project. The effects of the Proposed Project are defined as changes to the environmental setting that are attributable to project construction and operation.[1]

Significance criteria are identified for each environmental issue area. The significance criteria serve as a benchmark for determining if a project would result in a significant adverse environmental impact when evaluated against the baseline. According to the CEQA Guidelines Section 15382, a significant effect on the environment means "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project." If significant impacts are identified, feasible mitigation measures are formulated to eliminate or reduce the level of the impacts and focus on the protection of sensitive resources.

CEQA Guidelines Section 15126.4(a)(3) states that mitigation measures are not required for effects which are not found to be significant. Therefore, where an impact is less than significant no mitigation measures have been proposed. In addition, compliance with laws, regulations, ordinances, and standards designed to reduce impacts to less than significant levels are not considered mitigation measures under CEQA. Where potentially adverse impacts may occur, Southern California Edison has proposed Applicant Proposed Measures to minimize the environmental impacts.

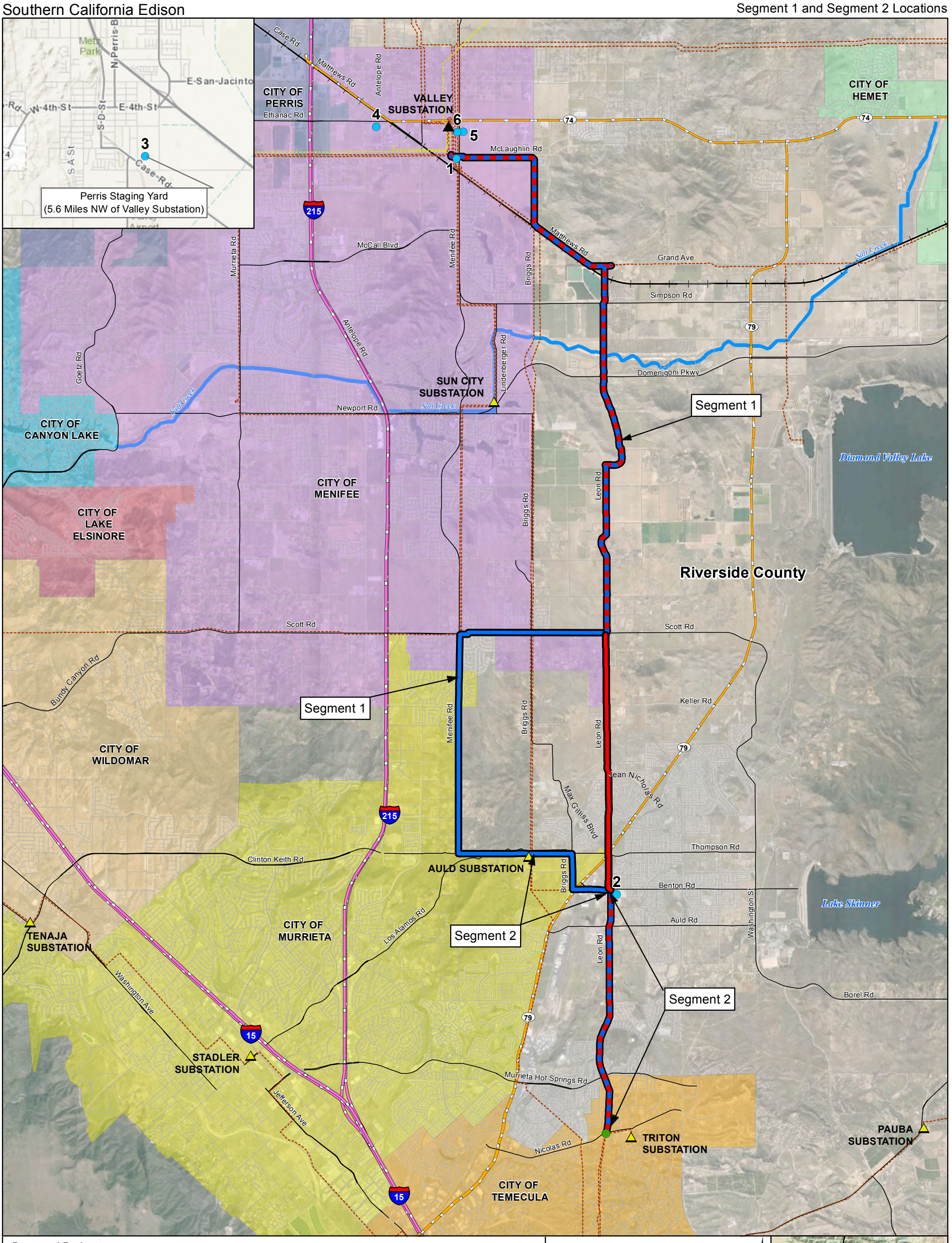
[1] The California Public Utilities Commission's Working Draft Proponent's Environmental Assessment (PEA) Checklist for Transmission Line and Substation Projects, dated November 2008 (Checklist), provides two options for applicants for formatting PEAs. One option is to include a Chapter 4 entitled "Environmental Setting" along with a separate Chapter 5 entitled "Environmental Impact Assessment Summary." The other option offered by the Checklist is for both sections to be combined into a single section. Southern California Edison has chosen to combine both the discussion of environmental setting with the discussion of environmental impacts into a single Chapter 4.

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.0**

Southern California Edison

Segment 1 and Segment 2 Locations



Proposed Project
- Proposed 115 kV Subtransmission Line
- Common to Both

Alternative Project
- Alternative 115 kV Subtransmission Line

Potential Material Staging Yards
- Staging Yards 1-6

Existing Facilities
- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Sources: SCE, 2014;
Riverside County, 2014;
Aerial Image:
Google Earth Pro, 2014

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Chapter 4

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Section 4.1
Aesthetics

4.1 Aesthetics

This section examines visual resources in the area of the Proposed Project to determine how it could affect the aesthetic character of the landscape. Visual resources are generally defined as the natural and built features of the landscape that can be viewed. Landforms, water, and vegetation patterns are among the natural landscape features that define an area's visual character, whereas buildings, roads and other structures reflect human modifications to the landscape. These natural and build landscape features are considered visual resources that contribute to the public's experience and appreciation of the environment. This section analyzes whether the Proposed Project would alter the perceived visual character of the environment and cause visual impacts. Alternatives to the Proposed Project are also discussed.

4.1.1 Environmental Setting

The Proposed Project consists of Segments 1 and 2 and is 15.4 miles in total length. The Proposed Project is located within unincorporated Riverside County and the cities of Menifee, Murrieta, and Temecula (Figure 4.0 Segment 1 and Segment 2 Locations). Segment 1 of the Proposed Project involves construction of a new 115 kV subtransmission line originating at Southern California Edison's (SCE's) existing Valley 500/115 kV Substation and connecting at a tubular steel pole (TSP) located at the southeast corner of Leon Road and Benton Road, for a total of 12 miles. Segment 1 of the Proposed Project would cross through the City of Menifee, unincorporated Riverside County, and a small portion of the City of Murrieta.

Segment 2 of the Proposed Project involves reconductoring a section of the existing Valley-Auld-Triton 115 kV Subtransmission Line. Segment 2 of the Proposed Project begins at the TSP located at the southeast corner of Leon Road and Benton Road and continues south to the existing Terminal TSP located on the south side of Nicolas Road, for a total of 3.4 miles. Segment 2 of the Proposed Project would cross through unincorporated Riverside County and the City of Temecula. Additionally, SCE may utilize an existing material staging yard outside of Segments 1 and 2 in the City of Perris.

This section describes the existing visual character and existing views of the Proposed Project and its vicinity, the scenic resources present in the surrounding area, and the light and glare conditions of the Proposed Project site and immediately adjacent properties.

4.1.1.1 Visual Character of the Proposed Project and Surrounding Region

The Proposed Project would run adjacent to existing roadways, mostly located within existing and newly acquired easements and franchise rights. Several land uses on and immediately

adjacent to the Proposed Project include electrical infrastructure (e.g., power poles), vacant land, agriculture, drainage basin, residential, schools, daycares, religious facilities, open space, recreation, public utilities, railroad, and commercial/retail.

Numerous 115 kV subtransmission lines are present within and surrounding the Proposed Project area. These 115 kV subtransmission lines supply power from Valley 500/115 kV Substation to distribution substations throughout the Proposed Project area. Along with 500 kV transmission line structures to the south, east, and northeast of Valley 500/115 kV Substation and communication tower structures, 115 kV subtransmission line structures define the region's visual character. The Proposed Project would follow portions of existing SCE facilities.

4.1.1.1.1 Valley 500/115 kV Substation

SCE's 500/115 kV Valley Substation is located on Menifee Road immediately south of State Route (SR) 74, in the City of Menifee. As described in Section 4.10, Land Use and Planning, the existing land use at the substation site is for electrical power facilities. Valley 500/115 kV Substation is located along a flat valley floor, with views of gently rolling hillsides, abrupt buttes, and rock outcroppings. The Lakeview Mountains to the north and the Dawson Mountains to the southeast of Valley 500/115 kV Substation create a strong visual backdrop, typical in Riverside County's Harvest Valley/Winchester Area Plan jurisdiction within which Valley 500/115 kV Substation is situated. Previously disturbed vacant parcels immediately surround the substation. Beyond these vacant parcels, residential, park, and school land uses are found north and south of the substation site. Furthermore, some commercial, retail, and manufacturing land uses are found along SR-74 and adjacent streets (along Menifee Road and Palomar Road). Wooden and steel electrical poles are visible along SR-74 and streets adjacent to the substation site.

4.1.1.1.2 Segments 1 and 2 of the Proposed Project

As described in Section 4.10, Land Use and Planning, Segment 1 of the Proposed Project is located within six Specific Plan areas (two of which extend into the City of Menifee) and three Area Plan areas within unincorporated Riverside County. Segment 2 of the Proposed Project is located within four Specific Plan areas and one Area Plan area within unincorporated Riverside County, and one Specific Plan area within the City of Temecula. Segment 1 of the Proposed Project is located within the Harvest Valley/Winchester Area Plan, the Sun City/Menifee Valley Area Plan, and the Southwest Area Plan, and Segment 2 of the Proposed Project is located within the Southwest Area Plan. A brief description of each plan area is provided below to further describe the existing visual character of the Proposed Project area and surrounding region. The locations of the Specific Plans and Area Plans within the Proposed Project area are depicted on Figure 4.10-3 Specific Plans and Figure 4.10-4 Area Plan Designations in Section 4.10, Land Use and Planning.

The Harvest Valley/Winchester area is located in the central portion of western Riverside County and is bordered by the cities of Perris and Menifee to the west, the Lakeview Mountains to the north, the City of Hemet and Dawson Mountains to the east, and Domenigoni Valley to the south (Riverside County, 2008c). The Harvest Valley/Winchester area consists of several unincorporated communities: Harvest Valley, Romoland, Homeland, Green Acres, and

Winchester. This area contains a wide variety of features, from flat valley floors and rolling foothills to abrupt buttes, hillsides, and rock outcroppings (Riverside County, 2008c). The major physical features defining the Harvest Valley/Winchester area are the Dawson and Lakeview Mountains, Diamond Valley Lake framed by the Domenigoni Mountains and Rawson Mountains, and Double Butte Mountain (Riverside County, 2008c).

Several highways, major roads, and railroads are present in the Harvest Valley Winchester area. SR-74 and the Burlington Northern/Santa Fe Railroad line run in an east-west direction through the northern portion of the area. SR-79 runs in a north-south direction through the central portion of the area. SR-74 and Menifee Road have views of the Lakeview and Dawson mountains and Double Butte Mountain (Riverside County, 2008c). Double Butte Mountain is a steep, dual-peaked mountain, centrally located between Winchester and Homeland, east of the Proposed Project.

The Sun City/Menifee area is bounded by the Southwest area to the south, Elsinore to the west, Mead Valley to the north, and the Harvest Valley/Winchester area to the east. The cities of Perris, Lake Elsinore, Canyon Lake, and Murrieta frame this 30,000 acre valley on the north, west, and south. The Menifee Valley mainly consists of a flat valley floor surrounded by hillside and mountainous features, with rugged outcroppings scattered throughout the area that break up the unvaried landscape (Riverside County, 2008e). This area is characterized by pockets of rural residential and very low density development, scattered through the periphery of the valley, with occasional estate development in the hillside area. The Menifee Valley is identified in the Sun City/Menifee Area Plan as being well suited to accommodate growth that fulfills the Riverside County Vision because of its flat nature (Riverside County, 2008e).

The Southwest area is located in the southwest portion of Riverside County and is bordered by San Diego County, the Santa Margarita Mountains and the Agua Tibia range to the south, the Santa Ana Mountains to the west, and the Black Hills to the east (Riverside County, 2008d). The Southwest area has several unincorporated communities, including Glen Oaks Hills/Valle de los Caballos, Pauba/Wolf Valley, Pechanga Indian Reservation, and Santa Rosa Plateau/De Luz. The Southwest area also includes the cities of Murrieta and Temecula. The physical features of the Southwest area that define the visual character include the Santa Rosa Plateau (located on the east side of the Santa Ana Mountains, immediately west of the cities of Murrieta and Temecula), Vail Lake (located in the Black Hills about 15 miles east of the City of Temecula, just north of SR-79), Cleveland National Forest (located along the southeastern boundary of the Southwest area), Lake Skinner (located in the northeastern corner of the Southwest area surrounded by Rawson Mountain, Bachelor Mountain, Black Mountain, and various rolling hills and agricultural uses), and Temecula Valley vineyards, wineries, and citrus groves (located east of the City of Temecula, extending westward) (Riverside County, 2008d; Google Earth, Pro, 2012 and 2014).

Material Staging Yards

Six potential material staging yards are associated with the Proposed Project. As described in Section 4.10, Land Use and Planning, these potential material staging yards are located on vacant land or on SCE property. Both Material Staging Yards 5 and 6 are located on SCE property. Material Staging Yard 5 is currently being used as a material/maintenance yard and Material

Staging Yard 6 is currently being used as an electrical power facility. All six of the potential material staging yards have been used by SCE or its contractors in the past as staging yards. With the exceptions of Material Staging Yard 3 (located in the City of Perris just north of Perris Valley Airport in an industrial area) and Material Staging Yard 4 (located in the City of Menifee, approximately 350 feet south of Ethanac Road on the west side of Antelope Road), these potential material staging yards would be located on or adjacent to Valley 500/115 kV Substation or the Proposed Project. Refer to Figure 3.6 Staging Yards in Chapter 3, Project Description, for the locations of these six potential material staging yards. The visual character of these potential material staging yards are the same as for the Valley 500/115 kV Substation and the Proposed Project area, described above.

4.1.1.2 Existing Views of the Proposed Project Area

Locations of images presented in this section are shown on Figure 4.1-1 Locations of Key Observation Points (KOPs) and Context Photographs. Existing views of the Proposed Project area, shown north to south, are provided in Figure 4.1-2 Context Photographs A and B, Figure 4.1-3 Context Photographs C and N (Context Photographs D through M depict the Alternative Project and are in Section 4.1.6), and Figure 4.1-4 Context Photographs O, P, and Q. These views were selected from various public vantage points to provide visual context of the existing visual quality and character of the Proposed Project area. Specifically, the photographs include views of Valley 500/115 kV Substation, residential streets, open space areas, and agricultural areas, and they show the visual features of the Proposed Project area (such as the flat valley floors, rolling foothills, abrupt buttes, hillsides, and rock outcroppings).

4.1.1.3 Scenic Resources

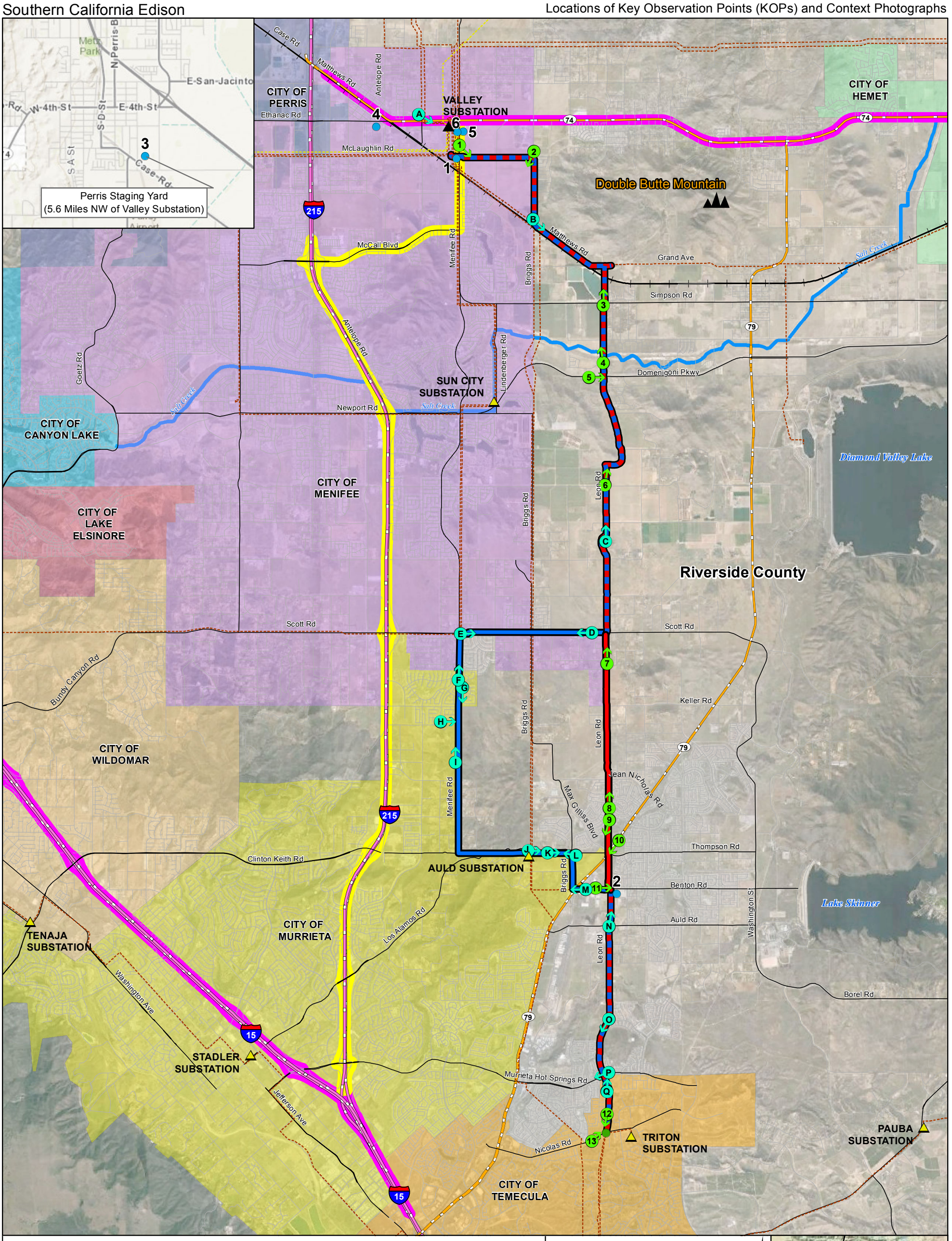
In general, scenic resources include areas that are visible to the general public and are considered visually attractive. Scenic resources in the Proposed Project area include hillsides and ridges that rise above urban or rural areas or highways. Double Butte Mountain, for example, contributes to the visual quality and character within the Harvest Valley/Winchester area (Riverside County, 2008c). Riverside County contains abundant natural visual resources, including low-lying valleys, mountain ranges, rock formations, rivers, and lakes (Riverside County, 2008a).

Scenic resources are important assets to the residents of the individual cities within Riverside County (Riverside County, 2008e). According to the Open Space and Conservation Element of the City of Menifee General Plan, as the City of Menifee grows, it is important to establish guidance for the protection and thoughtful development of Menifee's hillsides and natural rock outcroppings (City of Menifee, 2013).

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.1-1**

Southern California Edison

Locations of Key Observation Points (KOPs) and Context Photographs



Proposed Project
- Proposed 115 kV Subtransmission Line
- Common to Both

Alternative Project
- Alternative 115 kV Subtransmission Line

Potential Material Staging Yards
- Staging Yards 1-6
- Eligible State Scenic Highway
- Eligible County Scenic Highway

Existing Facilities
- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Key Observation Points (KOPs)
- Location of Key Observation Points and ID Number (arrow indicates photograph direction)

Context Photograph Points
- Location of Context Photograph and ID Letter (arrow indicates photograph direction)

Sources: SCE, 2014; Riverside County, 2014; City of Menifee, 2013
Aerial Image: Google Earth Pro, 2014

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Chapter 4

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Figure 4.1-2 Locations of Key Observation Points (KOPs) and Context Photographs



A: Segment 1 of the Proposed Project - View from Palomar Road (just north of SR-74), looking southeast toward Valley 500/115 kV Substation.



B: Segment 1 of the Proposed Project - View near Briggs Road (just north of Matthews Road), looking southeast toward Double Butte Mountain and Matthews Road.

Figure 4.1-3 Context Photographs C and N



C: Segment 1 of the Proposed Project - View from the top of a small knoll along Leon Road between Craig Avenue and Garbani Road, looking north.



N: Segment 2 of the Proposed Project - View from the intersection of Auld Road and Leon Road, looking north/northeast.

Figure 4.1-4 Context Photographs O, P, and Q



O: Segment 2 of the Proposed Project - View near Promontory Parkway and Leon Road, looking south/southwest.



P: Segment 2 of the Proposed Project - View from Murrieta Hot Springs Road, east of Chandler Road, looking west/southwest.



Q: Segment 2 of the Proposed Project - View from Suzi Lane, east of Shree Road, looking north.

The Open Space and Conservation Element indicates that the City of Menifee is a community with a dynamic topography, where hills and small mountains can be found throughout the City of Menifee alongside low-lying plains and waterways. Specifically, the City of Menifee's prominent natural hillsides are one of the city's most identifiable features. The steepest slopes and largest cluster of hillsides can be found north of Menifee Lakes, traveling northward across McCall Boulevard (City of Menifee, 2013). Quail Valley also has a significant number of steep hillsides that influence development patterns in the City of Menifee. The two tallest peaks – Quail Hill at 2,250 feet and Bell Mountain (in the City of Menifee's southeast area) at 1,850 feet – are important landmarks (City of Menifee, 2013). The City of Menifee is also home to a large collection of natural rock formations and pilings which further define the visual character of the City of Menifee (City of Menifee, 2013). In addition, according to the Community Design Element of the City of Menifee General Plan, the built environment plays a role equally important to that of the natural environment in defining the city's visual character (City of Menifee, 2013). Menifee largely consists of a collection of distinctive communities, and it is important to the city to maintain the character of these areas while developing or enhancing features that create a cohesive city image. This element focuses on strengthening the city's community design identity (i.e., the collection of gateways, neighborhoods, corridors, development, rural areas, activity centers, and design amenities) that compose the city's image (City of Menifee, 2013).

According to the Conservation Element of the Murrieta General Plan 2035 (City of Murrieta, 2011), the City of Murrieta's natural setting offers scenic views and vistas of features that have both scenic and ecological value. For example, a variety of rolling hillsides, mountain ranges, the valley floor, and varied natural vegetation contribute to the visual character of Murrieta, as well as the surrounding region. Hogbacks Mountain, a conspicuous mountain ridge east of the Interstate (I) 215 freeway, is a prominent visual feature within the Murrieta landscape that can be seen from many vantage points (City of Murrieta, 2011). This ridgeline crosses the eastern portion of the City of Murrieta and supports areas of relatively undisturbed natural vegetation along the western slope. Views of the Santa Rosa Plateau occur along the I-15 and I-215 freeways, as well as from lands located to the west of the Hogbacks Mountain. Views from these locations also include the largely undisturbed ridgelines that extend to the north and south of the Santa Rosa Plateau, combined with hillside areas supporting chaparral habitat. Oak woodland habitat and a variety of canyons are present along the foothills of the Santa Ana Mountains and add to the existing visual character.

According to the Open Space/Conservation Element of the City of Temecula General Plan (City of Temecula, 2005b), the rolling hills, golf courses, wineries, and open space help define the visual character of the City of Temecula and should be protected and enhanced. Natural features within the City of Temecula provide a scenic setting for the community. Specifically, natural features within the city include the western escarpment and southern ridgelines, hillsides in the northern area, natural drainage courses, and environmental resources of the Santa Margarita River. The Open Space/Conservation Element indicates that these natural features should be protected from insensitive development and activities (City of Temecula, 2005b). The Open Space/Conservation Element also indicates that public views to these areas should be maintained to the extent possible (City of Temecula, 2005b).

The scenic resources within unincorporated and incorporated Riverside County can be viewed from the county and local city roadways. Several roadways have been officially recognized as designated or eligible state (California Department of Transportation [Caltrans]) or county scenic highways (Riverside County, 2008b).

Although no designated scenic highways are located within the Proposed Project area, various portions of the highways in the vicinity have been nominated for eligible state scenic highway or eligible county scenic highway status. For example, portions of the I-15 (in the cities of Wildomar and Murrieta) and SR-74 (in the City of Menifee and Riverside County) are eligible state scenic highways (Caltrans, 2014). A portion of the I-215 (in the cities of Menifee and Murrieta) (Riverside County, 2008b) is also an eligible county scenic highway. In addition, a portion of Menifee Road (between SR-74 and McCall Boulevard) is considered an eligible county scenic highway (City of Menifee, 2013).

4.1.1.4 Light and Glare

Existing sources of light and glare within the Proposed Project area are from the following: light fixtures and traffic along SR-74, SR-79, and other roadways; and interior and exterior lighting from residential, commercial, and business structures and parking areas. Another source of light and glare within the Proposed Project area is from Valley 500/115 kV Substation. There is a mixture of lighting at Valley 500/115 kV Substation, including interior and exterior lighting from buildings, lighting from switchracks, and sensor lights throughout the substation. In addition, another source of light and glare near the Proposed Project is the French Valley Airport, located at the southern termination point of Segment 2 of the Proposed Project, approximately 0.45 of a mile to the west. Specifically, the airplanes, buildings, and light towers in the airport are sources of light and glare to the south of the Proposed Project area.

4.1.2 Regulatory Setting

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

4.1.2.1 Federal

Federal Aviation Administration

The Federal Aviation Administration (FAA) standards for marking and lighting structures to promote aviation safety are applicable to any temporary or permanent structures, including all appurtenances that exceed an overall height of 200 feet above ground level (AGL) or exceed any obstruction standard contained in Title 14 Code of Federal Regulations (CFR), Part 77. The maximum height for any of the subtransmission structures would be 115 feet and construction cranes may reach heights of approximately 145 feet for short durations during temporary construction of the TSPs. Although the Proposed Project would not exceed an overall height of 200 feet AGL or exceed any obstruction standard contained in Title 14 CFR, Part 77, SCE could be required to file a Notice of Proposed Construction or Alteration (Form 7460-1) with the FAA.

SCE would file Federal Aviation Administration (FAA) notifications for Proposed Project structures, as required. With respect to Proposed Project structures, the FAA will conduct its own analysis and may recommend no changes to the design of the proposed structures; or may request redesigning the proposed structures near the airports to reduce the height of such structures; or marking the structures, including the addition of aviation lighting; or placement of marker balls on wire spans. SCE would evaluate the FAA recommendations for reasonableness and feasibility, and in accordance with Title 14 Part 77, SCE may petition the FAA for a discretionary review of its determination to address any issues with the FAA determination. FAA agency determinations for permanent structures typically are valid for 18 months, and therefore such notifications would be filed upon completion of final engineering and before construction commenced.

4.1.2.2 State

California Department of Transportation's (Caltrans) Scenic Highway Program

The Scenic Highway Program in the State of California is aimed at the protection and long-term preservation of highway corridors with scenic value to ensure the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the Caltrans for scenic highway approval, and receives the designation. A city or county may propose adding routes with outstanding scenic elements to the list of eligible highways; however, additions can only be made through legislative action. There are no designated state scenic highways located in the vicinity of the Proposed Project.

4.1.2.3 Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (G.O.) 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters." Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county and cities' regulations are not applicable as county and cities do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local regulations is provided for informational purposes only.

Riverside County General Plan

<u>Multipurpose Open Space Element</u>

Scenic Resources

The following Riverside County General Plan - Multipurpose Open Space Element policy (Riverside County, 2008e) is relevant to the Proposed Project's aesthetics and visual resources considerations:

- Policy OS 21.1: Identify and conserve the skylines, view corridors, and outstanding scenic vistas within Riverside County

Scenic Corridors

The following Riverside County General Plan - Multipurpose Open Space Element policies (Riverside County, 2008e) to protect and maintain resources in corridors along scenic highways are relevant to the Proposed Project's aesthetics and visual resources considerations:

- Policy OS 22.1: Design developments within designated scenic highway corridors to balance the objectives of maintaining scenic resources with accommodating compatible land uses
- Policy OS 22.3: Encourage joint efforts among federal, state, and county agencies, and citizen groups to ensure compatible development within scenic corridors
- Policy OS 22.4: Impose conditions on development within scenic highway corridors requiring dedication of scenic easements consistent with the Scenic Highways Plan, when it is necessary to preserve unique or special visual features

Land Use Element

The following Riverside County General Plan - Land Use Element policies (Riverside County, 2008a) are relevant to the Proposed Project's aesthetics and visual resources considerations:

- Policy LU 13.1: Preserve and protect outstanding scenic vistas and visual features for the enjoyment of the traveling public
- Policy LU 13.3: Ensure that the design and appearance of new landscaping, structures, equipment, signs, or grading within [d]esignated and [e]ligible [s]tate and [c]ounty [s]cenic [h]ighway corridors are compatible with the surrounding scenic setting or environment
- Policy LU 13.5: Require new or relocated electric or communication distribution lines, which would be visible from [d]esignated and [e]ligible [s]tate and [c]ounty [s]cenic [h]ighways, to be placed underground
- Policy LU 13.8: Avoid the blocking of public views by solid walls

Circulation Element

The following Riverside County General Plan - Circulation Element (Riverside County, 2008b) policies are relevant to the Proposed Project's aesthetics and visual resources considerations:

- Policy C 19.1: Preserve scenic routes that have exceptional or unique visual features in accordance with Caltrans' Scenic Highways Plan

- Policy C 25.2: Locate new and relocated utilities underground when possible. All remaining utilities shall be located or screened in a manner that minimizes their visibility by the public

Mount Palomar Nighttime Lighting Policy

The Proposed Project falls within the Mount Palomar Nighttime Lighting Policy Area (Riverside County, 2008c, 2008d, and 2008f). Mount Palomar Observatory is located in San Diego County approximately 19 miles southeast of the Proposed Project. The observatory requires unique nighttime lighting standards to allow the night sky to be viewed clearly. This policy is included within the Harvest Valley/Winchester Area Plan (Policy HVWAP 9.1), Sun City/Menifee Valley Area Plan (Policy SCMVAP 12.1), and Southwest Area Plan (Policy SWAP 13.1), as described below.

Harvest Valley/Winchester Area Plan

The following Harvest Valley/Winchester Area Plan policies (Riverside County, 2008c) are relevant to the Proposed Project's aesthetics and visual resources considerations:

- Policy HVWAP 9.1: Adhere to the lighting requirements specified in [Riverside] 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
- Policy HVWAP 14.1: Protect the scenic highways in the Harvest Valley/Winchester planning area from change that would diminish the aesthetic value of adjacent properties in accordance with the Scenic Corridors sections of the General Plan Land Use, Multipurpose Open Space, and Circulation Elements

Sun City/Menifee Valley Area Plan

The following Riverside County General Plan - Sun City/Menifee Valley Area Plan (Riverside County, 2008f) policies are relevant to the Proposed Project's aesthetics and visual resources considerations:

- Policy SCMVAP 12.1: Adhere to the [Riverside] County lighting requirements for standards that are intended to limit light leakage and spillage that may interfere with the operations of the Palomar Observatory
- Policy SCMVAP 17.1: Protect the scenic highways in the Sun City/Menifee Valley Area Plan from change that would diminish the aesthetic value of adjacent properties in accordance with the Scenic Corridors sections of the General Plan Land Use, Multipurpose Open Space, and Circulation Elements

Southwest Area Plan

The following Riverside County General Plan - Southwest Area Plan policies (Riverside County, 2008d) are relevant to the Proposed Project's aesthetics and visual resources considerations:

- Policy SWAP 13.1: Adhere to the lighting requirements of [Riverside County] ordinances for standards that are intended to limit light leakage and spillage that may interfere with the operations of the Palomar Observatory
- Policy SWAP 19.1: Protect the scenic highways in the Southwest planning area from change that would diminish the aesthetic value of adjacent properties in accordance with the Scenic Corridors sections of the General Plan Land Use, Multipurpose Open Space, and Circulation Elements

City of Menifee General Plan

Land Use Element

The following City of Menifee General Plan - Land Use Element policy (City of Menifee, 2013) is relevant to Segment 1 of the Proposed Project's aesthetics and visual resources considerations:

- Policy LU-3.5: Facilitate the shared use of right-of-way, transmission corridors, and other appropriate measures to minimize the visual impact of utilities infrastructure throughout Menifee

Open Space and Conservation Element

The following City of Menifee General Plan - Open Space and Conservation Element policies (City of Menifee, 2013) are relevant to Segment 1 of the Proposed Project's aesthetics and visual resources considerations:

- Policy OCS-3.1: Identify and preserve the view corridors and outstanding scenic vistas within the city
- Policy OCS-3.4: Support the preservation of natural vegetation and rock outcroppings during and after the construction process

Circulation Element

The following City of Menifee General Plan - Circulation Element policy (City of Menifee, 2013) is relevant to Segment 1 of the Proposed Project's aesthetics and visual resources considerations:

- Policy C-6.5: Ensure that the design and appearance of new landscaping, structures, equipment, signs, or grading within eligible county scenic highway corridors are compatible with the surrounding scenic setting or environment

Community Design Element

The following City of Menifee General Plan - Community Design Element policy (City of Menifee, 2013) is relevant to Segment 1 of the Proposed Project's aesthetics and visual resources considerations:

- Policy CD-6.5: Limit light leakage and spillage that may interfere with the operations of the Palomar Observatory

City of Menifee Municipal Code

The following provisions from the City of Menifee's Municipal Code (City of Menifee, 2014) are relevant to Segment 1 of the Proposed Project's aesthetics and visual resources considerations:

> Dark Sky; Light Pollution (Chapter 6.01): The City of Menifee establishes lighting standards for specific types of lamps, shielding, hours of operation, and outdoor advertising displays. Low-pressure sodium lamps are preferred. All outdoor lights, with certain exceptions, must be shielded. All outdoor lighting used for illumination for walkways, private roadways and streets, equipment yards, parking lot and outdoor security may remain on all night; decorative lighting must be off between 11:00 PM and sunrise; and advertising lighting may remain on until midnight

City of Murrieta General Plan

Conservation Element

The following City of Murrieta General Plan - Conservation Element policies (City of Murrieta, 2011) are relevant to the Proposed Project's aesthetics and visual resources considerations:

- Policy CSV-5.1: Promote compliance with hillside development standards and guidelines to maintain the natural character and the environmental and aesthetic values of sloped areas
- Policy CSV-9.1: Identify and protect native trees, trees of historic or cultural significance, and mature trees, consistent with the Tree Preservation Ordinance

City of Perris General Plan

The City of Perris General Plan does not contain any specific aesthetic or visual resource goals or policies relevant to the Proposed Project.

City of Temecula General Plan

Land Use Element

The following City of Temecula General Plan – Land Use Element policies (City of Temecula, 2005a) are relevant to Segment 2 of the Proposed Project's aesthetics and visual resources considerations:

- Policy 6.1: Preserve the natural aesthetic quality of hillsides and reduce hazards associated with hillside development within the Planning Area

Open Space/Conservation Element

The following City of Temecula General Plan – Open Space/Conservation Element policies (City of Temecula, 2005b) are relevant to Segment 2 of the Proposed Project's aesthetics and visual resources considerations:

- Policy 5.8: Require re-vegetation of graded slopes concurrent with project development to minimize erosion and maintain the scenic character of the community

Community Design Element

The following City of Temecula General Plan – Community Design Element policies (City of Temecula, 2005c) are relevant to Segment 2 of the Proposed Project's aesthetics and visual resources considerations:

- Policy 2.5: Limit light and glare pollution through design standards for outdoor lighting, the use of low intensity lights, and lighting that supports the continued use of the Mt. Palomar Observatory
- Policy 5.6: Promote and implement underground utilities (cable, power, etc.) where feasible

4.1.3 Significance Criteria

The significant criteria for assessing the impacts to aesthetics come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources within a state scenic highway, including, but not limited to: trees, rock outcroppings, and historic buildings
- Substantially degrade the existing visual character or quality of the site and its surroundings
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

4.1.4 Impact Analysis

Methodology

Photographic documentation of the Proposed Project area was performed to help create an understanding of the area's existing visual character and for use in visual simulation analysis. Context photographs were taken from a variety of publicly accessible locations throughout the Proposed Project area and vicinity (refer to Figure 4.1-2 Context Photographs A and B, Figure 4.1-3 Context Photographs C and N, and Figure 4.1-4 Context Photographs O, P, and Q). The locations of these context photographs are shown previously in Figure 4.1-1 Locations of Key Observation Points (KOPs) and Context Photographs.

Specific photographs were selected to establish KOPs and to subsequently perform a visual simulation analysis. These KOPs are located in publicly accessible locations throughout the Proposed Project area. These locations represent views from Menifee Road, Briggs Road near Heritage High School, Leon Road and Simpson Road, Salt Creek Trail, Domenigoni Parkway

near Leon Road, Leon Road near Holland Road, Leon Road near Scott Road, Leon Road at Lantana Way, Old Leon Road (Old Leon Road for reference purposes only), SR-79/Winchester Road near Thompson Road, Benton Road and Penfield Lane, Leon Road near Nicolas Road, and Nicolas Road near Joseph Road. A total of 13 visual simulations were prepared for views from KOPs to illustrate the potential visual effects of the Proposed Project's facilities on viewers at these locations. The visual simulations present computer-generated, photo-realistic images of the Proposed Project's facilities as they would appear from each KOP. The "before project" (existing conditions) and "after project" (visual simulations) photographs of the Proposed Project are shown further below in Section 4.1.4.3.

The methodology used for the visual analysis included:

- Review of local (e.g., Riverside County, cities of Murrieta, Menifee, and Temecula) planning documents
- Field observations of the Proposed Project area, conducted in March 2012, January 2013, May 2014, and July 2014
- Ground-level photographs
- Selecting and photographing KOPs
- Computer-generated, photo-realistic images of the Proposed Project after its construction
- Assessment of the magnitude of the changes to the existing visual baseline posed by the Proposed Project

Refer to Appendix I, Visual Simulation Methodology, which provides a detailed description of the methodology used for Proposed Project visual simulations.

4.1.4.1 Would the project have a substantial adverse effect on a scenic vista?

Construction

No Impact. There are no designated scenic vistas within the Proposed Project area. Therefore, construction of the Proposed Project would not have an effect on a scenic vista. No impact would occur.

Operation

No Impact. As noted above, there are no designated scenic vistas within the Proposed Project area. Therefore, Operations and Maintenance (O&M) of the Proposed Project would not have an effect on a scenic vista. No impact would occur.

4.1.4.2 Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Construction

No Impact. Although no officially designated state scenic highways are within the Proposed Project area, SR-74 is an eligible state scenic highway located less than 1 mile from Segment 1

of the Proposed Project. Also, the portion of Menifee Road that Segment 1 of the Proposed Project crosses is an eligible county scenic highway. As shown in Figure 4.1-5 KOP 1 (View from Menifee Road near the Intersection of Private Road [SCE access road/farm road], Looking Southeast), Segment 1 of the Proposed Project construction activities and associated equipment would be visible from Menifee Road. The construction activities would occur within existing SCE rights-of-way or adjacent to existing roadways, where no scenic resources are found. Scenic resources within the vicinity of Segment 1 of the Proposed Project, such as Double Butte Mountain, would not be affected by construction of Segment 1 of the Proposed Project. It should be noted that there are no eligible state or county scenic highways within the vicinity of Segment 2 of the Proposed Project. Therefore, construction activities associated with the Proposed Project would not damage scenic resources, nor would they damage scenic resources within a state scenic highway. No impact would occur.

Operation

No Impact. As noted above, although no officially designated state scenic highways are within the Proposed Project area, SR-74 is an eligible state scenic highway located less than 1 mile from Segment 1 of the Proposed Project. Also, the portion of Menifee Road that Segment 1 of the Proposed Project crosses is an eligible county scenic highway. During O&M of the Proposed Project, routine inspections and emergency repair would require the use of vehicles and equipment. SCE inspects the subtransmission overhead facilities in a manner consistent with CPUC G.O. 165, a minimum of once per year, or as needed, via ground observation, in order to ensure system reliability. Maintenance could include activities such as repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, replacing poles and towers, tree trimming, brush and weed control, and access road maintenance. O&M activities would occur within existing SCE rights-of-way or adjacent to existing roadways, where no scenic resources are found. The scenic resources within the Proposed Project area, such as Double Butte Mountain, would not be affected by O&M of the Proposed Project. Therefore, O&M of the Proposed Project would not damage scenic resources, nor would it damage scenic resources within a state scenic highway. No impact would occur.

4.1.4.3 Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Construction

Less Than Significant Impact. Segment 1 of the Proposed Project would include construction of a new 115 kV subtransmission line (12 miles in length) and associated components, removal and reconfiguration of a number of existing pole structures, and modifications to the existing Valley 500/115 kV Substation. Construction of Segment 2 of the Proposed Project involves reconductoring a 3.4-mile section of the existing Valley-Auld-Triton 115 kV Subtransmission Line. The majority of existing structures along Segment 2 of the Proposed Project would not be replaced or modified, with the exception of three locations at Leon Road and Benton Road, Leon Road and Allen Road, and Leon Road and Nicolas Road. During construction, the temporary presence of SCE crews, various types of heavy equipment (e.g., cranes, dump trucks, graders) and activity, including any staging and the generation of waste, would be expected to temporarily interrupt the existing visual character and quality of the area. Construction activities would be

visible from the residences, trails, businesses, and surface streets surrounding the Proposed Project area. Refer to the context photographs provided previously for a depiction of existing visual character and quality of the Proposed Project area. The general staging activities, earthwork activities (such as grading and trenching), use of cranes (to remove and install poles), and construction-related waste generated during construction activities may impact potential sensitive receptors and their views of surrounding scenic resources (e.g., Double Butte Mountain), including the occupants of the nearest residences, trail users, and motorists located near or passing by the construction area. Overall, construction of the Proposed Project is expected to occur over a 16-month period; however, because of the linear nature of the Proposed Project, individual construction activities at any specific location would take considerably less time. In addition, to minimize impacts to the existing visual character and quality from sensitive receptors, SCE would incorporate standard practices such as maintaining a clean construction site and ensuring that construction-related waste is obscured from the public view to reduce the potential unsightly aspects associated with construction activities. With incorporation of these practices, impacts associated with the potential for the Proposed Project to substantially degrade the existing visual character or quality of the site and its surroundings would be less than significant.

KOP 1 Existing View



KOP 1 Visual Simulation



Figure 4.1-5
KOP 1
(View from Menifee Road near the Intersection of Private Road, looking Southeast)

KOP 2 Existing View



Figure 4.1-6
KOP 2
(View from Briggs Road near Heritage High School, looking Southwest)

KOP 2 Visual Simulation



KOP 3 Existing View



KOP 3 Visual Simulation



Figure 4.1-7
KOP 3
(View from Leon Road and Simpson Road, looking North)

KOP 4 Existing View



KOP 4 Visual Simulation



Figure 4.1-8
KOP 4
(View along Leon Road at Salt Creek Crossing, looking Northwest)

KOP 5 Existing View



KOP 5 Visual Simulation



Figure 4.1-9
KOP 5
(View from Eastbound Domenigoni Parkway, just West of the Intersection of Leon Road and Domenigoni Parkway, looking East)

KOP 6 Existing View

Note: The above ground height of existing wood poles presented is approximately 43 feet; the height of the human figure adjacent to the pole is approximately 6 feet and is presented for height scale.



KOP 6 Visual Simulation

Note: The proposed subtransmission route is located approximately 40 feet east of the existing distribution route. The height of the human figure adjacent to the proposed approximately 75-foot pole is approximately 6 feet and is presented for height scale as well as displaying a shift in the location of the first pole in the "Existing View" photo.



Figure 4.1-10
KOP 6
(View from Leon Road, just North of Holland Road, looking North/Northeast)

KOP 7 Existing View



KOP 7 Visual Simulation



Figure 4.1-11
KOP 7
(View from Leon Road, just South of Scott Road and immediately North of Fowler Drive, looking North)

KOP 8 Existing View



KOP 8 Visual Simulation



Figure 4.1-12
KOP 8
(View from Neighborhood Trail along Leon Road at Lantana Way, looking North)

KOP 9 Existing View



Figure 4.1-13
KOP 9
(View from Neighborhood Trail along Old Leon Road, looking Southwest)

KOP 9 Visual Simulation



KOP 10 Existing View



KOP 10 Visual Simulation



Figure 4.1-14
KOP 10
(View from SR-79/Winchester Road, North of Thompson Road, looking Southwest)

KOP 11 Existing View



KOP 11 Visual Simulation



Figure 4.1-15
KOP 11
(View from Benton Road and Penfield Lane, looking East)

KOP 12 Existing View



KOP 12 Visual Simulation



Figure 4.1-16
KOP 12
(View from an Unpaved Trail parallel to Leon Road, North of Nicolas Road, looking South)

KOP 13 Existing View



KOP 13 Visual Simulation



Figure 4.1-17
KOP 13
(View along Nicolas Road, East of Joseph Road, looking Northeast)

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Operation

Significant and Unavoidable Impact. Although the Proposed Project primarily involves upgrades to existing subtransmission and distribution lines, pole installations and replacements would result in different levels of change to existing views depending on their proximity to the electrical lines. A total of 13 visual simulations were produced at KOPs, to facilitate this analysis and represent a range of viewpoints in the area, as presented in the following figures:

- Figure 4.1-5 KOP 1 (View from Menifee Road near the Intersection of Private Road [SCE access road/farm road], looking Southeast
- Figure 4.1-6 KOP 2 (View from Briggs Road near Heritage High School, looking Southwest)
- Figure 4.1-7 KOP 3 (View from Leon Road and Simpson Road, looking North)
- Figure 4.1-8 KOP 4 (View along Leon Road at Salt Creek Crossing, looking Northwest)
- Figure 4.1-9 KOP 5 (View from Eastbound Domenigoni Parkway, just West of the Intersection of Leon Road and Domenigoni Parkway, looking East)
- Figure 4.1-10 KOP 6 (View from Leon Road, just North of Holland Road, looking North/Northeast)
- Figure 4.1-11 KOP 7 (View from Leon Road, just South of Scott Road and immediately North of Fowler Drive, looking North)
- Figure 4.1-12 KOP 8 (View from Neighborhood Trail along Leon Road at Lantana Way, looking North)
- Figure 4.1-13 KOP 9 (View from Neighborhood Trail along Old Leon Road, looking Southwest)
- Figure 4.1-14 KOP 10 (View from SR-79/Winchester Road, North of Thompson Road, looking Southwest)
- Figure 4.1-15 KOP 11 (View from Benton Road and Penfield Lane, looking East)
- Figure 4.1-16 KOP 12 (View from an Unpaved Trail parallel to Leon Road, North of Nicolas Road, looking South), and
- Figure 4.1-17 KOP 13 (View along Nicolas Road, East of Joseph Road, looking Northeast)

See Figure 4.1-1 Locations of Key Observation Points [KOPs] and Context Photographs shown previously for the locations of the KOPs.

Figure 4.1-5 KOP 1 (View from Menifee Road near the Intersection of Private Road [SCE access road/farm road], looking Southeast)

Less Than Significant Impact. The Proposed Project would not substantially degrade the view of Double Butte Mountain or the surrounding valley in the background from this location, as Segment 1 of the Proposed Project would follow the existing SCE Valley-Auld 115 kV Subtransmission Line along a private road (SCE access road/farm road) between Menifee Road and Briggs Road, and the approximately 1,500 feet of new subtransmission line nearest to Menifee Road would be installed underground. Any visual resource changes associated with the Proposed Project would be minor because of the presence of the existing line along a private road, and the remaining approximately 0.75 of a mile of the line extending to Briggs Road would be installed primarily on existing poles, with reconfigured pole heads. One new Riser TSP and

approximately four light weight steel (LWS) poles would be installed to replace five existing LWS poles where the line rises to an overhead position; this, and other planned minor modifications, would also represent a minor change. The new poles would not substantially affect the views of Double Butte Mountain and the surrounding valley, especially given the larger scale of the butte and surrounding valley in comparison to the new poles. In addition, the brown and silver coloring of the new poles would blend with the brown and gray, rocky slopes of Double Butte Mountain and brown and green slopes of the surrounding valley. The impact would be less than significant.

Figure 4.1-6 KOP 2 (View from Briggs Road near Heritage High School, looking Southwest)

Less Than Significant Impact. As shown in this figure, the Proposed Project would not substantially degrade the view of the surrounding valley and distant hills in the background from this location, as the new subtransmission line would follow the existing SCE Valley-Auld 115 kV Subtransmission Line along a private road (in the middle ground of the image) and Briggs Road (on the left side of the image). In addition, only a reconfiguration of the pole heads and replacement of one guy stub pole would occur at this location. Therefore, the visual change associated with the Proposed Project would be minor. The impact would be less than significant.

Figure 4.1-7 KOP 3 (View from Leon Road and Simpson Road, looking North)

Less Than Significant Impact. As shown in this figure, the Proposed Project would result in a visible change to the views along Leon Road of Double Butte Mountain in the distance from this location. At this location, there are two existing poles located on the northwest corner of Leon Road at Simpson Road, however the new subtransmission line would be installed on new wood poles and one new TSP along the east side of Leon Road. The new poles would mainly be noticeable to motorists and would partially obstruct views of Double Butte Mountain and the surrounding valley to the north. This portion of Segment 1 of the Proposed Project, which extends approximately 0.5 of a mile along Leon Road, would be seen for a short distance by motorists. The new poles would slightly diminish the existing visual character and quality of the site from this view. However, the new poles would not substantially affect the views of Double Butte Mountain and the surrounding valley, especially given the larger scale of the butte and surrounding valley in comparison to the new poles. In addition, the brown and silver coloring of the new poles would blend with the brown and gray, rocky slopes of Double Butte Mountain and brown and green slopes of the surrounding valley. Also, the new poles would blend with other built features in this view, such as the existing wood poles and associated power lines. Therefore, the Proposed Project would not substantially degrade the existing visual character and quality of the site from this view. The impact would be less than significant.

Figure 4.1-8 KOP 4 (View along Leon Road at Salt Creek Crossing, looking Northwest)

Less Than Significant Impact. As shown in this figure, Segment 1 of the Proposed Project crosses the Salt Creek Recreational Trail/levee road. The Salt Creek Recreational Trail currently receives minimal, informal use due to the lack of existing development in the area it traverses; however, this trail is categorized as a Class I Bike Path/Regional Trail in the Riverside County General Plan and Harvest Valley/Winchester Area Plan. The Proposed Project would result in a visible change from this location, as the new subtransmission line would be installed on new

poles. The taller poles would partially obstruct views of Double Butte Mountain and the surrounding valley, in the far distance; however, these visual changes would be minor because the new subtransmission line would be installed on poles that would replace existing wood poles. In addition, the new poles would not substantially affect the views of Double Butte Mountain and the surrounding valley seen in the backdrop to the south and west of this view. Moreover, the brown and silver coloring of the new poles would blend with the brown and gray, rocky slopes of Double Butte Mountain and brown and green slopes of the surrounding valley. Therefore, the Proposed Project would not substantially degrade the visual character and quality of this location and its surroundings. The impact would be less than significant.

Figure 4.1-9 KOP 5 (View from Eastbound Domenigoni Parkway, just West of the Intersection of Leon Road and Domenigoni Parkway, looking East)

Less Than Significant Impact. As shown in this figure, the Proposed Project would result in a visible change to the views along Domenigoni Parkway of the Domenigoni Mountains and San Jacinto Mountains in the background. At this location, there are a total of three existing poles (one wood pole on the northwest corner of Leon Road and Domenigoni Parkway, and one wood pole and a guy stub pole on the southwest corner of Leon Road and Domenigoni Parkway). These existing poles partially obstruct views of the Domenigoni Mountains and San Jacinto Mountains located to the east. The Proposed Project would replace the wood pole on the northwest corner of Leon Road and Domenigoni Road with a new TSP, and would replace the one wood pole and guy stub pole with a new TSP. The number of poles would be reduced from three to two in this view, though the new TSPs would be taller and have more overhead electrical lines than the existing wood poles. The new poles would be mainly noticeable to motorists and would slightly increase the obstructed views of the Domenigoni Mountains and San Jacinto Mountains to the east. This portion of Segment 1 of the Proposed Project, which extends approximately 0.10 of a mile along Leon Road, would be seen for a short distance by motorists. The new poles would slightly diminish the existing visual character and quality of the site from this view. However, the new poles would not substantially affect the views of the Domenigoni Mountains and San Jacinto Mountains. In addition, the silver coloring of the new poles would blend with the brown and green slopes of the Domenigoni Mountains and San Jacinto Mountains. Also, the new poles would blend with other built features in this view, such as the existing street lamps and traffic light poles along Domenigoni Parkway and Leon Road. Therefore, the Proposed Project would not substantially degrade the existing visual character and quality of the site from this view. The impact would be less than significant.

Figure 4.1-10 KOP 6 (View from Leon Road, just North of Holland Road, looking North/Northeast)

Less Than Significant Impact. As shown in this figure, the Proposed Project would result in a visible change to the views along unimproved Leon Road of open space/agricultural land and a hillside with rock outcroppings in the background. At this location, there are a number of wood poles that parallel Leon Road on the east side of the road as it heads north and meanders around the hillside to the east/northeast. The existing wood poles would be replaced with new wood poles that would be slightly taller, spaced more closely together, and have more overhead electrical lines than the existing wood poles. In addition, two of the existing wood poles where the road bends around the hillside would be replaced with two new TSPs. The new poles would

be mainly noticeable to motorists and recreation users in this rural area along the unimproved Leon Road and the unpaved regional trail that runs parallel to Leon Road, respectively. The new poles would slightly increase the obstruction of views of the hillside with rock outcroppings and the surrounding open space/agricultural land. However, these visual changes would be minor because the new subtransmission line would be installed on poles that would replace existing wood poles. In addition, the new poles would not substantially affect the views of the open space/agricultural land and hillside with rock outcroppings. Also, the brown and silver coloring of the new poles would blend with the brown, rocky slopes of the hillside and surrounding open space/agricultural land. Therefore, the Proposed Project would not substantially degrade the existing visual character and quality of the site from this view. The impact would be less than significant.

Figure 4.1-11 KOP 7 (View from Leon Road, just South of Scott Road and immediately North of Fowler Drive, looking North)

Less Than Significant Impact. As shown in this figure, the Proposed Project would result in a visible change to the views along Leon Road of a hillside with rock outcroppings and Double Butte Mountain in the background. At this location, there are a number of wood poles that parallel Leon Road mainly on the west side of the road along existing residences, with some poles shown on the east side further up the road as it heads north. These existing wood poles are adjacent to residential uses and a regional trail that runs parallel to Leon Road. The existing wood poles would be replaced with new wood poles that would be slightly taller and spaced more closely together. In addition, two of the existing wood poles located further north on Leon Road at Scott Road (one on the west side and the other on the east side of Leon Road) would be replaced with TSPs. The new poles would be noticeable to trail users, residences, and motorists, and would partially obstruct the views of the hillside and Double Butte Mountain along Leon Road (on which the KOP is located) and from nearby residences. However, these visual changes would be minor because the new subtransmission line would be installed on poles that would replace existing wood poles. In addition, the new poles would not substantially affect the views of the hillside and Double Butte Mountain to the north. Also, the brown and silver coloring of the new poles would blend with the brown and gray, rocky slopes of the hillside and Double Butte Mountain. Therefore, the Proposed Project would not substantially degrade the existing visual character and quality of the site from this view. The impact would be less than significant.

Figure 4.1-12 KOP 8 (View from Neighborhood Trail along Leon Road at Lantana Way, looking North)

Significant and Unavoidable Impact. As shown in this figure, the Proposed Project would result in a substantial change to views from a neighborhood trail and residences along Leon Road from this location as it would install new wood poles where no above ground electrical poles currently exist. At this location, there are no existing electrical poles or other electrical infrastructure with the exception of some street lamps that are dispersed on either side of Leon Road. The existing view consists of an unpaved neighborhood trail in a residential area surrounded by landscaped grass and ornamental shrubs in the center of the view. A short, white fence separates the neighborhood trail from Leon Road in the left portion of the view. A line of landscaped trees can be seen on the far left and far right of the view, buffering the residential areas from Leon Road. The view offers a wide expanse of open sky with largely unobstructed

views of Double Butte Mountain located in the background, with the exception of street lamps along either side of Leon Road. Segment 1 of the Proposed Project would be installed on new wood poles on the east side of Leon Road, directly parallel to the neighborhood trail and residences. The new wood poles would be taller than street lamps and trees and would dominate the center portion of the view. Given the height and scale of the new wood poles, they would be noticeable to trail users, residents, and motorists, and would obstruct the views of the open sky and Double Butte Mountain to the north from the neighborhood trail (on which the KOP is located) and from nearby residences. Therefore, the Proposed Project would substantially degrade the visual character and quality of the site from this view. The impact would be significant and unavoidable.

Figure 4.1-13 KOP 9 (View from Neighborhood Trail along Old Leon Road, looking Southwest)

Less Than Significant Impact. As shown in this figure, the Proposed Project would result in a visible change from this location, as the Proposed Project would be installed on new wood poles along the west side of the road. The new poles would be noticeable to trail users, residents, and motorists, and would partially obstruct the views of the surrounding valley from the neighborhood trail (on which the KOP is located) and from nearby residences. However, the increased pole height and shorter distance between the poles would not substantially affect the views of the surrounding valley seen in the backdrop to the south and west of this view. Although the new wood poles would be taller than the existing poles, the new poles would have the same brown color and similar appearance as the existing poles they would replace. Therefore, the Proposed Project would not substantially degrade the existing visual character and quality of the site. The impact would be less than significant.

Figure 4.1-14 KOP 10 (View from SR-79/Winchester Road, North of Thompson Road, looking Southwest)

Less Than Significant Impact. As shown in this figure, the Proposed Project would not substantially degrade the views of the open space areas along SR-79/Winchester Road and surrounding valley and distant hills as there is an existing line of wood poles along vacated Leon Road and across SR-79/Winchester Road. The Proposed Project would replace the existing wood poles with new, taller wood poles and have more overhead electrical lines which would partially obstruct views of the surrounding valley and distant hills in the background. However, any visual resource changes associated with the Proposed Project would be minor as the new wood poles would have the same brown color and similar appearance as the existing poles. Also, the new poles would blend with other built features in this view, such as the existing street lamps and traffic light poles along SR-79/Winchester Road and Leon Road. In addition, the new wood poles would blend with the brown and green slopes of the surrounding valley and distant hills from this view. Therefore, the Proposed Project would not substantially degrade the visual character and quality of the site from this view. The impact would be less than significant.

Figure 4.1-15 KOP 11 (View from Benton Road and Penfield Lane, looking East)

Less Than Significant Impact. As shown in this figure, the Proposed Project would not substantially degrade the view of the surrounding mountains and valleys in the background from this location, as there are already existing wood poles and LWS poles on either side of Benton

Road and at the intersection of Benton Road and Leon Road further east that partially obstruct views of the surrounding mountains and valleys in the background. Segment 2 of the Proposed Project would only involve reconfiguration of one of the LWS pole heads on the south side of Benton Road and installation of a new guy stub pole and TSP on the north side of Benton Road. While the new TSP and guy stub pole would slightly increase the obstruction of views of the surrounding mountains and valleys from this location, the visual change would be minor. Therefore, the Proposed Project would not substantially degrade the existing visual character and quality of the site from this view. The impact would be less than significant.

Figure 4.1-16 KOP 12 (View from an Unpaved Trail parallel to Leon Road, North of Nicolas Road, looking South)

Less Than Significant Impact. As shown in this figure, the Proposed Project would not substantially degrade the views of open space and hills along the unpaved trail (that runs parallel to Leon Road). At this location there are existing wood poles, LWS poles, and TSPs on the east side of Leon Road that partially obstruct views of the open space and hills along the unpaved trail. Segment 2 of the Proposed Project would involve replacing two wood poles with new wood poles that would be slightly taller than the existing wood poles. While the new wood poles would slightly increase the obstruction of views of the open space and hills from this location, the visual change would be minor. Therefore, the Proposed Project would not substantially degrade the existing visual character and quality of the site from this view. The impact would be less than significant.

Figure 4.1-17 KOP 13 (View along Nicolas Road, East of Joseph Road, looking Northeast)

Less Than Significant Impact. As shown in this figure, the Proposed Project would not substantially degrade the views of open space, hills, and the San Jacinto Mountains along Nicolas Road from this location. At this location, there are existing wood poles and TSPs on either side of Nicolas Road and on the east side of Leon Road. The existing wood poles and TSPs partially obstruct views of the open space, hills, and San Jacinto Mountains along Nicolas Road. Segment 2 of the Proposed Project would only involve replacing two wood poles with new wood poles that would be slightly taller than the existing wood poles. While the new wood poles would slightly increase the obstruction of views of the open space, hills, and San Jacinto Mountains from this location, the visual change would be minor. Therefore, the Proposed Project would not substantially degrade the existing visual character and quality of the site from this view. The impact would be less than significant.

Visual Character and Quality Impact Summary

Significant and Unavoidable Impact. As discussed above, O&M of the Proposed Project would result in a noticeable change to views of the Proposed Project area. Although there are a number of existing poles and overhead electrical lines throughout the Proposed Project area, the Proposed Project, Segment 1 in particular, would replace a number of existing poles with taller poles. Some of these taller replacement poles would have less spacing between each pole and would have more overhead electrical lines than the existing poles, which would result in greater obstruction of views of the scenic open space, hills, mountains (such as Double Butte Mountain), and rock outcroppings from surrounding roadways, trails, and residences. The replacement poles

would have an appearance similar to the existing poles and their brown and silver color would blend with the built features and surrounding scenic resources (e.g., the brown and gray, rocky slopes of Double Butte Mountain), as illustrated above in KOPs 1 through 7 and 9 through 13. However, a portion of Segment 1 of the Proposed Project near a neighborhood trail and residences along Leon Road at Lantana Way (KOP 8) would introduce new wood poles where no above ground electrical poles currently exist and would substantially degrade the visual character and quality of the area at this location. As described above, the new wood poles would be taller than the existing street lamps and trees and would dominate the center portion of the view at this location. Given the height and scale of the new wood poles, they would be noticeable to trail users, residents, and motorists, and would partially obstruct the views of the open sky and Double Butte Mountain to the north from the neighborhood trail (on which KOP 8 is located) and from nearby residences. In light of this, impacts would be significant and unavoidable.

4.1.4.4 Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Construction

Less Than Significant Impact. Under normal circumstances, construction of the Proposed Project would occur during daylight hours over the course of approximately 16 months. However, the possibility would exist that construction could occur at night, and temporary, artificial illumination would be required. Lighting would be used to protect the safety of the construction workers, but efforts would be made to minimize its effect on any nearby receptors and the Mount Palomar Observatory. Thus, construction activities associated with the Proposed Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, the impact would be less than significant.

Operation

Less Than Significant Impact. O&M of the Proposed Project would require minimal new lighting. Specifically, new lighting would be installed on the new switchrack at the Valley 500/115 kV Substation. However, the new lights would not create a substantial amount of new light or glare as they would be comparable to the lights installed on the existing switchracks located at the Valley 500/115 kV Substation. In addition, the non-specular 954 thousandths circular mil (kcmil) stranded aluminum conductor (SAC) would be installed as the new 115 kV subtransmission conductor for the Proposed Project. The term non-specular is used to infer that the surface of an aluminum conductor, any type aluminum conductor, has been either mechanically or chemically treated to produce reduced reflectivity (Southwire Company, LLC, 2014). Therefore, any glare associated with the new 115 kV subtransmission conductor would be minimized with the installation of non-specular 954 kcmil SAC. Thus, O&M of the Proposed Project would not create a new source of substantial light or glare, nor would it adversely affect use of the Mount Palomar Observatory, which is located approximately 19 miles away. The impact would be less than significant.

4.1.5 Applicant Proposed Measures

The Proposed Project's impacts to visual quality and character are less than significant for KOPs 1-7 and 9-13. However, impacts associated with KOP 8 are considered significant and unavoidable, and no reasonable avoidance or minimization measures are available to reduce this finding to a less than significant level.

4.1.6 Alternative 2

The Alternative Project would be approximately 19 miles in total length and would extend approximately 4 miles longer than the Proposed Project. Segment 1 of the Alternative Project would follow a route identical to that of Segment 1 of the Proposed Project for the first approximately 8 miles, and then would turn west at Scott Road for approximately 2 miles to the intersection of Menifee Road. Segment 1 of the Alternative Project would continue south on Menifee Road for approximately 3 miles, following an existing 115 kV subtransmission line to the intersection of unimproved Clinton Keith Road. From Clinton Keith Road, it would extend east for approximately 1 mile until its termination point near SCE's Auld 115/12 kV Substation, for a total of approximately 14 miles.

Segment 2 of the Alternative Project would begin at an existing TSP located east of Auld 115/12 kV Substation and would connect to the existing Valley-Auld-Triton 115 kV Subtransmission Line paralleling Los Alamos Road for approximately 0.5 of a mile until it reaches Briggs Road where it would turn south for approximately 0.5 of a mile. It would then span SR-79 in an easterly direction and parallel Benton Road for approximately 0.5 of a mile before merging with Segment 2 of the Proposed Project. At this location, Segment 2 of the Alternative Project would follow the same approximately 3-mile route as Segment 2 of the Proposed Project, for a total of 5 miles.

The Alternative Project along the shared approximately 8-mile and 3-mile portions of Segment 1 and Segment 2 would include the same improvements as the Proposed Project. Therefore, impacts along these shared areas would be the same as the Proposed Project. The following discussion describes the resources and impacts where the Alternative Project would differ from the Proposed Project.

Existing views of the Alternative Project area are provided in Figure 4.1-18 Context Photographs D and E, Figure 4.1-19 Context Photographs F and G, Figure 4.1-20 Context Photographs H and I, Figure 4.1-21 Context Photographs J and K, and Figure 4.1-22 Context Photographs L and M.

Segment 1 of the Alternative Project

For the remaining approximately 6 miles (from the intersection of Scott Road and Leon Road until its termination point near Auld 115/12 kV Substation), Segment 1 of the Alternative Project would traverse through the City of Menifee, unincorporated Riverside County, and portions of the City of Murrieta. It would follow existing roadways, with the exception of one portion of the

route that would follow existing SCE facilities to the intersection of unimproved Clinton Keith Road.

Segment 2 of the Alternative Project

For the first approximately 2 miles (from a TSP located east of Auld 115/12 kV Substation continuing east and southeast until it reaches the TSP located at the southeast corner of Leon Road and Benton Road), Segment 2 of the Alternative Project would traverse through the City of Murrieta and unincorporated Riverside County. It would follow the existing Valley-Auld-Triton 115 kV Subtransmission Line and existing roadways.

Although the physical specifications of the Alternative Project would be similar as those of the Proposed Project (similar pole types, poles of similar height, similar spacing between poles, etc.), it would be approximately 4 miles longer than the Proposed Project, thereby resulting in a greater "visual footprint." Due to the larger area covered by the project's facilities, impacts associated with the Alternative Project are expected to be greater than the Proposed Project.

Figure 4.1-18 Context Photographs D and E



D: Segment 1 of the Alternative Project - View from Scott Road, west of Leon Road, looking west.



E: Segment 1 of the Alternative Project - View from the intersection of Scott Road and Menifee Road, looking east.

Figure 4.1-19 Context Photographs F and G



F: Segment 1 of the Alternative Project - View from the intersection of Menifee Road and Mapleton Road, looking north.



G: Segment 1 of the Alternative Project - View from the intersection of Petunia Street and Summersweet Place, looking south toward a gated trail.

Figure 4.1-20 Context Photographs H and I



H: Segment 1 of the Alternative Project - View from Musa Lane, southeast of Whitewood Road, looking east.



I: Segment 1 of the Alternative Project - View from a knoll just west of Menifee Road, between Keller Road and Baxter Road, looking north.

Figure 4.1-21 Context Photographs J and K



J: Segment 2 of the Alternative Project - View from Liberty Lane, just north of Auld 115/12 kV Substation, looking east.



K: Segment 2 of the Alternative Project - View from existing Valley-Auld-Triton 115 kV Subtransmission Line, south of the intersection of Los Alamos Road and Suzi Reid Way, looking east.

Figure 4.1-22 Context Photographs L and M



L: Segment 2 of the Alternative Project - View from Briggs Road, just south of the intersection of Los Alamos Road and Briggs Road, looking west.



M: Segment 2 of the Alternative Project - View from Temeku Street, just south of Benton Road, looking west.

4.1.7 References

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Section 4.2
Agriculture and Forestry Resources

4.2 Agriculture and Forestry Resources

This section describes agriculture and forestry resources in the area of the Valley South 115 kilovolt (kV) Subtransmission Project (Proposed Project), as well as the potential impacts and project alternatives.

4.2.1 Environmental Setting

The Proposed Project consists of Segments 1 and 2 and is 15.4 miles in total length. The Proposed Project is located within unincorporated Riverside County and the cities of Menifee, Murrieta, and Temecula (Figure 4.0 Segment 1 and Segment 2 Locations). Segment 1 of the Proposed Project involves construction of a new 115 kV subtransmission line originating at Southern California Edison's (SCE's) existing Valley 500/115 kV Substation and connecting at a tubular steel pole (TSP) located at the southeast corner of Leon Road and Benton Road, for a total of 12 miles. Segment 1 of the Proposed Project would cross through the City of Menifee, unincorporated Riverside County, and a small portion of the City of Murrieta.

Segment 2 of the Proposed Project involves reconductoring a section of the existing Valley-Auld-Triton 115 kV Subtransmission Line. Segment 2 of the Proposed Project begins at the TSP located at the southeast corner of Leon Road and Benton Road and continues south to the existing Terminal TSP located on the south side of Nicolas Road, for a total of 3.4 miles. Segment 2 of the Proposed Project would cross through unincorporated Riverside County and the City of Temecula. Additionally, SCE may utilize an existing material staging yard outside of Segments 1 and 2 in the City of Perris.

A summary of the existing agricultural uses within Riverside County and the Proposed Project area is discussed below.

4.2.1.1 Existing Agricultural Uses within Riverside County

One of Riverside County's most important land uses in terms of historic character and economic strength is its widespread and diverse agriculture lands (Riverside County, 2008a). In Riverside County, agriculture production is one of the largest industries in dollar value and competes successfully in the global economy (Riverside County, 2008a). Agricultural use not only provides important employment opportunities for many Riverside County residents, but also defines the unique character of numerous communities. Agriculture also helps to define the edges of and provides separation between developed areas.

According to the 2012 Riverside County Agricultural Production Report, the gross value for agricultural crops in 2012 was $1,252,730,071, which represents a decrease of 2.3 percent from the previous year (Riverside County Agricultural Commissioner's Office, 2012). Nursery stock ranked as the top valued crop in Riverside County for 2012, followed by milk, table grapes, hay, eggs, and bell peppers (Riverside County Agricultural Commissioner's Office, 2012).

In western Riverside County, approximately 110,269 acres of its land is used for agriculture (LSA Associates, Best, Best, and Krieger, United States Fish and Wildlife Service, California Department of Fish and Game, and DUDEK & Associates, 2003). The City of Menifee, the fourth largest city in Riverside County in terms of land area (with a total land area of 29,818 acres), has approximately 6 percent of its land used for agricultural purposes (City of Menifee, 2010). In addition, the City of Murrieta (with a total land area of approximately 21,510 acres) has approximately 4.7 percent of its land used for agriculture (City of Murrieta, 2010). Also, the City of Perris (with a total land area of approximately 18,427 acres) uses or had used approximately 52 percent of its land for agriculture (City of Perris, 2005a and 2005b). The City of Temecula, (with a total land area of approximately 23,794 acres) has approximately 53 percent of its land designated for agricultural purposes, but much of the land has already been developed or entitled prior to the City's incorporation (City of Temecula, 2002).

4.2.1.2 Summary of State-Designated Farmland in Riverside County

A summary of the State-designated agricultural land in Riverside County is provided below in Table 4.2-1 Summary of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance in Riverside County. A distribution of the various State-designated farmland classifications within the Proposed Project area is shown in Figure 4.2-1 FMMP Farmland Classifications.

Table 4.2-1 Summary of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance in Riverside County

Category	Inventoried Acreage in Riverside County	Percent of Total Acreage in Riverside County
Prime Farmland	122,929	2.6
Farmland of Statewide Importance	44,650	1.0
Unique Farmland	37,132	0.8
Farmland of Local Importance[1]	229,148	4.9
Total Important Farmland	**433,859**	**9.3**

Category	Inventoried Acreage in Riverside County	Percent of Total Acreage in Riverside County

Notes:

Includes unincorporated and incorporated cities in Riverside County.

[1] According to the Multipurpose Open Space Element of the Riverside County General Plan (2008a), Riverside County defines Farmland of Local Importance as the following:

- Lands with soils that would be classified as Prime or Statewide Important Farmlands but lack available irrigation water.
- Lands planted in 1980 or 1981 in dry land grain crops such as barley, oats, and wheat.
- Lands producing major crops for Riverside County but that are not listed as Unique Farmland crops. Such crops are permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelon.
- Dairy lands including corrals, pasture, milking facilities, and hay and manure storage areas if accompanied with permanent pasture or hayland of 10 acres or more.
- Lands identified by the County with Agriculture land use designations or contracts.
- Lands planted with jojoba that are under cultivation and are of producing age.

Source: Riverside County, 2013

4.2.1.3 Agricultural Uses and State-Designated Farmland within the Proposed Project Area

4.2.1.3.1 Valley 500/115 kV Substation

Valley 500/115 kV Substation is an existing 500/115 kV substation, located immediately south of State Route (SR) 74 on Menifee Road, in the City of Menifee. There are no existing agricultural uses within the substation property. The substation parcel itself is designated by the California Department of Conservation (CDC) Farmland Mapping and Monitoring Program (FMMP) as Urban and Built-Up Land.

4.2.1.3.2 Proposed 115 kV Subtransmission Line

Segment 1 of the Proposed Project would be approximately 12 miles long and would be oriented primarily north to south between Valley 500/115 kV Substation (located in the City of Menifee) and connecting at a TSP, located at the southeast corner of Leon Road and Benton Road in unincorporated Riverside County. It would cross through the City of Menifee, unincorporated Riverside County, and a small portion of the City of Murrieta. As described in Section 4.10, Land Use and Planning, there are existing agricultural uses within and immediately adjacent to portions of Segment 1 of the Proposed Project.

According to Figure 4.2-1 FMMP Farmland Classifications, Segment 1 of the Proposed Project crosses portions of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, with the immediate Proposed Project area consisting mostly of Farmland of Local Importance.

Agricultural lands covered by Williamson Act contracts are illustrated in Figure 4.2-2 Williamson Act Lands and Agricultural Preserves. There are two Agricultural Preserve parcels that carry "Williamson Act – Prime Agricultural Land" status located adjacent to Leon Road.

The parcel located on Leon Road between Grand Avenue and Simpson Road (shown as Site 1 on Figure 4.2-2) is approximately 350 by 1,255 feet in size, with a total area of approximately 10.2 acres. The parcel located on Leon Road between Garbani Road and Wickerd Road (shown as Site 2 on Figure 4.2-2) is approximately 2,560 by 2,530 feet in size, with a total area of approximately 149.4 acres.

There are several Agricultural Preserve parcels located adjacent to Segment 1 of the Proposed Project along Matthews Road and Leon Road.

Segment 2 of the Proposed Project begins at the TSP located at the southeast corner of Leon Road and Benton Road and continues southerly to the existing Terminal TSP located on the south side of Nicolas Road, for a total of 3.4 miles. Segment 2 of the Proposed Project would cross through unincorporated Riverside County and the City of Temecula. As described in Section 4.10, Land Use and Planning, there are existing agricultural uses within and immediately adjacent to portions of Segment 2 of the Proposed Project.

According to Figure 4.2-1 FMMP Farmland Classifications, Segment 2 of the Proposed Project crosses portions of Farmland of Local Importance and Grazing Land. There is one Agricultural Preserve parcel that carries "Williamson Act-Prime Agricultural Land" status (shown as Site 3 in Figure 4.2-2 Williamson Act Lands and Agricultural Preserves) located adjacent to Leon Road, south of Allen Road. Site 3 is approximately 2,660 by 2,600 feet in size, with a total area of approximately 158.8 acres.

There are three Agricultural Preserve parcels located adjacent to Segment 2 of the Proposed Project along Leon Road and Chandler Lane.

4.2.1.3.3 Access Roads/Locations

SCE would utilize a combination of through roads and spur roads accessed from a network of existing paved and unpaved public and private roads. For Segment 1 of the Proposed Project, SCE would also use and maintain one existing permanent unpaved access road 400 feet in length on the easterly side of Leon Road starting approximately 300 feet south of Craig Road. This access road is currently located within land designated as Farmland of Local Importance. Typically, access to all other pole site locations would be achieved by utilizing overland travel from the edge of existing paved or dirt roads approximately 50 feet to each pole site. These access locations would traverse the proposed and/or dedicated public street rights-of-way along Menifee Road, Briggs Road, Matthews Road, Case Road, Grand Avenue, Scott Road, Leon Road, Old Leon Road, Simpson Road, Holland Road, Pennycress Lane, Thompson Road, Max Gillis Boulevard, Newport Road/Domenigoni Parkway, SR-79, Benton Road, Antelope Road, Ethanac Road, SR-74, and a private road (SCE access road/farm road) between Menifee and Briggs Roads to gain access to each pole site and/or material staging yard within locations where designated farmland is currently located. For Segment 2 of the Proposed Project, SCE would utilize existing access roads and there are no new access roads anticipated.

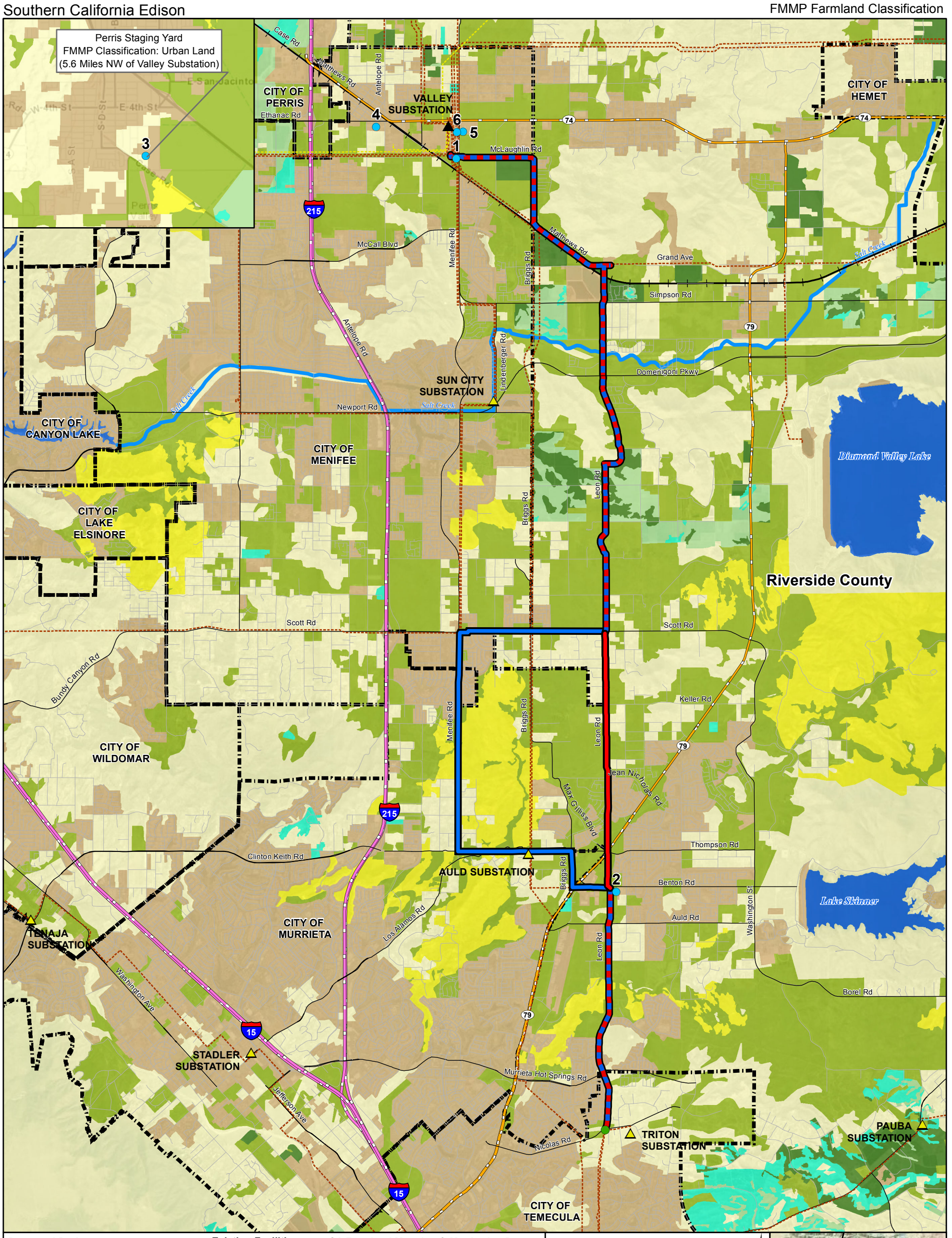
4.2.1.3.4 Proposed Material Staging Yards

Six potential material staging yards are associated with the Proposed Project. As described in Section 4.10, Land Use and Planning, these potential material staging yards are located on vacant

land or on SCE property. Material Staging Yards 1, 5, and 6 are located on SCE property and currently are being used as material/maintenance yards. All six of the potential material staging yards have been used by SCE or its contractors in the past as staging yards.

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.2-1**

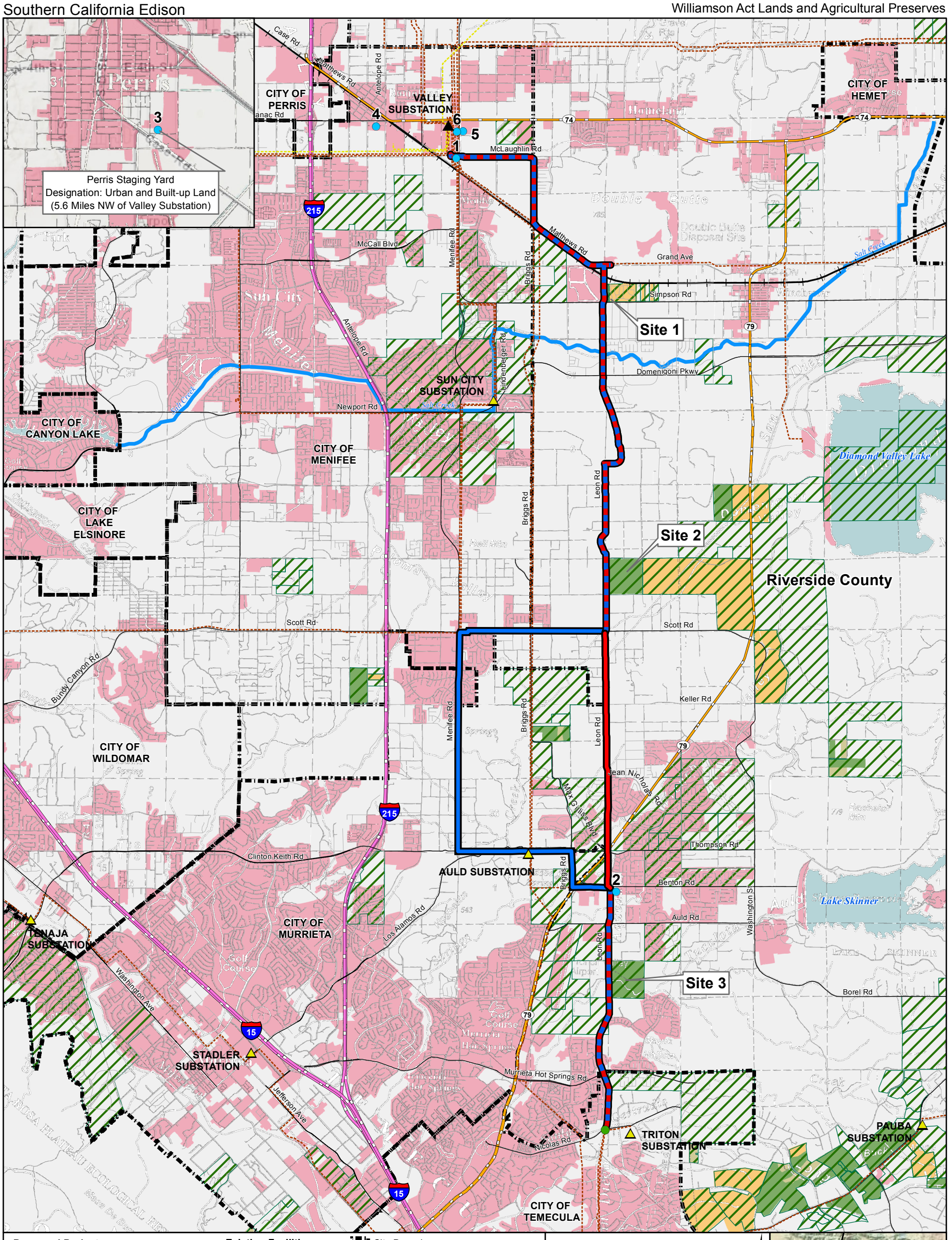
Southern California Edison FMMP Farmland Classification



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.2-2**

Southern California Edison

Williamson Act Lands and Agricultural Preserves



With the exception of Material Staging Yard 3 (located in the City of Perris just north of Perris Valley Airport in an industrial area) and Material Staging Yard 4 (located in the City of Menifee, approximately 350 feet south of Ethanac Road on the west side of Antelope Road), these staging yards would be located on or adjacent to the Valley 500/115 kV Substation or the Proposed 115 kV subtransmission line.

While there are no existing agricultural uses within any of the six potential material staging yards, Material Staging Yards 1 and 2 are designated by the FMMP as Farmland of Local Importance.

4.2.1.4 Local Agriculture Zoning Designations

The Proposed Project would be located on three zoning designations that are zoned for agricultural uses per the Riverside County Zoning Ordinance: Rural-Residential (R-R), Light Agriculture with Poultry (A-P), and Light Agriculture (A-1). The Proposed Project is also located within two zoning designations that permit agriculture as an allowable use: One Family Dwelling (R-1) and Specific Plan (S-P) (Riverside County, 2010).

The agricultural designations within the Proposed Project are presented in Table 4.2-2 FMMP Designations, Agricultural Preserves, Williamson Act Contracts, and Agricultural Zoning by Proposed Project Component.

4.2.1.5 Existing Forest Land and Designated Forest Land

There are two major forests in Riverside County: the Cleveland National Forest and the San Bernardino National Forest (Riverside County, 2008a). Both of the major forests in Riverside County are part of the Sierran mountain range. These forests occur on all of the higher mountain ranges of the Pacific Coast region, from southern Oregon to northern Baja California. At lower elevations, these forests commonly border mixed evergreen forest, oak woodland, and chaparral (Riverside County, 2008a). The Cleveland National Forest and San Bernardino National Forest are located more than 20 miles away from the Proposed Project area. No forest land or timberland is located within the Proposed Project area (CAL FIRE, 2003). In addition, there are no forest land zoning or timberland zoning designations within the Proposed Project area (CAL FIRE, 2003).

4.2.2 Regulatory Setting

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

4.2.2.1 Federal

There are no federal regulations related to agriculture and forestry resources that would apply to the Proposed Project.

4.2.2.2 State

California Land Conservation Act (Williamson Act) (Government Code § 51200 et seq.)

The California Land Conservation Act of 1965 (Williamson Act) preserves open spaces and agricultural land in exchange for property tax breaks. It discourages urban sprawl and prevents landowners from developing their property for the greater land value of commercial and/or residential uses. The Williamson Act is a state program implemented at the county level that allows agricultural landowners to contractually agree to retain land included in an agricultural preserve in agricultural and/or open space uses for a period of 10 years and, in return, to pay reduced property taxes. The term of the contract automatically renews each year unless the landowner opts to not renew or to cancel, so that the contract always has a 10-year period left. The Proposed Project crosses Williamson Act lands, as shown in Figure 4.2-2 Williamson Act and Agricultural Preserves.

California Government Code Section 51238

California Government Code Section 51238 includes the provisions related to the Williamson Act that state, "notwithstanding any determination of compatible uses by the county or city pursuant to this article, unless the board or council after notice and hearing makes a finding to the contrary, the erection, construction, alteration, or maintenance of gas, electric, water, communication, or agricultural laborer housing facilities are hereby determined to be compatible uses within any agricultural preserve."

California Government Code Sections 51100-51155

Chapter 6.7 of the California Government Code (Sections 51100-51155) regulates timberlands within the state. "Timberland production zone" is defined in Section 51104(g) as an area that has been zoned pursuant to Government Code Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. In this context, "compatible uses" include any use that "does not significantly detract from the use of the property for, or inhibit, growing and harvesting timber" (Government Code Section 51104[h]). Watershed management, grazing and the erection, construction, alteration, or maintenance of electric transmission facilities are examples of compatible uses. With respect to the general plans of cities and counties, "timberland preserve zone" means "timberland production zone."

Table 4.2-2 FMMP Designations, Agricultural Preserves, Williamson Act Contracts, and Agricultural Zoning by Proposed Project Component

Project Component Location	Jurisdiction	FMMP Designation	Agricultural Preserves	Williamson Act Contract	Agriculture-Related Zoning
Valley 500/115 kV Substation					
Valley 500/115 kV Substation, located immediately south of SR-74 on Menifee Road	City of Menifee	Urban and Built-Up Land	None	None	Rural Residential
Segment 1 of the Proposed Project					
From the south side of the existing Valley 500/115 kV Substation, extending easterly on a private road to Briggs Road	City of Menifee	Farmland of Local Importance Prime Farmland	None	None	Specific Plan Zone Rural Residential
From the intersection of a private road and Briggs Road, extending south on Briggs Road to Matthews Road	City of Menifee; Riverside County	Farmland of Local Importance Other Land	None	None	Specific Plan Zone
From the intersection of Briggs Road and Matthews Road, extending south-easterly and adjacent to Matthews Road to Grand Avenue	Riverside County	Farmland of Local Importance Prime Farmland Urban and Built-Up Land	South side of Matthews Road	None	Specific Plan Zone Light Agriculture with Poultry Rural Residential

Project Component Location	Jurisdiction	FMMP Designation	Agricultural Preserves	Williamson Act Contract	Agriculture-Related Zoning
From the intersection of Grand Avenue and Leon Road, extending south on Leon Road to Scott Road	Riverside County	Urban and Built-Up Land Prime Farmland Farmland of Local Importance Farmland of Statewide Importance Unique Farmland Other Land	East side of Leon Road between Grand Avenue and Simpson Road East side of Leon Road between Garbani Road and Wickerd Road	Site 1 (East side of Leon Road between Grand Avenue and Simpson Road) Site 2 (East side of Leon Road between Garbani Road and Wickerd Road)	Rural Residential One-Family Dwellings Specific Plan Zone Light Agriculture
From the intersection of Scott Road and Leon Road, continuing south on Leon Road to SR-79	City of Menifee; Riverside County; City of Murrieta Sphere of Influence (SOI)[2]	Other Land Farmland of Local Importance Urban and Built-Up Land	West side of Leon Road between Jean Nicolas Road and SR-79	None	Rural Residential Specific Plan Zone One-Family Dwellings Light Agriculture
From the intersection of SR-79 and Leon Road, continuing south on Leon Road to a TSP, located at the southeast corner of Leon Road and Benton Road	Riverside County; City of Murrieta; City of Temecula SOI[3]	Farmland of Local Importance	West side of Leon Road between SR-79 and Benton Road	None	Specific Plan Zone

Project Component Location	Jurisdiction	FMMP Designation	Agricultural Preserves	Williamson Act Contract	Agriculture-Related Zoning
Segment 2 of the Proposed Project					
From a TSP located at the southeast corner of Leon Road and Benton Road, continuing south along Valley-Auld-Triton 115 kV Subtransmission Line to the intersection of Allen Road and Leon Road	Riverside County; City of Temecula SOI[4]	Farmland of Local Importance Other Land	West side of Leon Road between Auld Road and Allen Road	None	Light Agriculture
From the intersection of Allen Road and Leon Road, continuing south along Valley-Auld-Triton 115 kV Subtransmission Line (parallel to Leon Road) near Promontory Parkway	Riverside County; City of Temecula SOI[4]	Farmland of Local Importance Grazing Land	East side of Leon Road and south of Allen Road	Site 3 (East side of Leon Road and south of Allen Road)	Light Agriculture Specific Plan Zone
From Leon Road near Promontory Parkway, continuing south along Valley-Auld-Triton 115 kV Subtransmission Line (parallel to Leon Road and trails) to the intersection of Murrieta Hot Springs Road and Chandler Lane	Riverside County; City of Temecula SOI[4]	Other Land Urban and Built-Up Land	East and west side of Leon Road roughly between Promontory Parkway and McGowan's Pass	None	Specific Plan Zone

Project Component Location	Jurisdiction	FMMP Designation	Agricultural Preserves	Williamson Act Contract	Agriculture-Related Zoning
From the intersection of Murrieta Hot Springs Road and Chandler Lane, continuing south along Valley-Auld-Triton 115 kV Subtransmission Line (parallel to Chandler Lane and trail) to the Terminal TSP located on the south side of Nicolas Road, approximately 250 feet west of Los Chorus Ranch Road	Riverside County; City of Temecula	Farmland of Local Importance Other Land	East of Chandler Lane and south of Murrieta Hot Springs Road	None	Specific Plan Zone
Material Staging Yards					
Material Staging Yard 1, located at the southwest corner of a private road and Menifee Road	City of Menifee	Farmland of Local Importance	None	None	Rural Residential
Material Staging Yard 2, located approximately 700 feet west of Van Gaale Lane on the south side of Benton Road	Riverside County; City of Temecula SOI[4]	Farmland of Local Importance	None	None	None
Material Staging Yard 3, located approximately 150 feet north of Case Road, 250 feet east of G Street on Walker Avenue	City of Perris	Urban and Built-Up Land	None	None	None
Material Staging Yard 4, located approximately 350 feet south of Ethanac Road on the west side of Antelope Road	City of Menifee	Urban and Built-Up Land	None	None	Rural Residential

Project Component Location	Jurisdiction	FMMP Designation	Agricultural Preserves	Williamson Act Contract	Agriculture-Related Zoning
Material Staging Yard 5, located on the east side of Menifee Road just south of SR-74	City of Menifee	Urban and Built-Up Land	None	None	Rural Residential
Material Staging Yard 6, located within the existing Valley 500/115 kV Substation property on Menifee Road immediately south of SR-74	City of Menifee	Urban and Built-Up Land	None	None	Rural Residential

Notes:

Agriculture-related zoning includes agriculture zoning designations or zoning designations that permits agricultural uses. All zoning designations are Riverside County zoning designations; there are no City of Murrieta agriculture zoning designations or zoning designations that permit agricultural uses within the Proposed Project.

[1] Although the City of Menifee is an incorporated city and recently adopted a General Plan, it defers to Riverside County's Zoning Code.

[2] This portion of Segment 1 of the Proposed Project is located within the City of Murrieta's Sphere of Influence (SOI). Although Riverside County is responsible for administration of land use decisions within the SOI (see page 3-2 of the City of Murrieta's General Plan Land Use Element), it still is considered part of the City of Murrieta's "Planning Area," and thus is acknowledged accordingly.

[3] This portion of Segment 1 of the Proposed Project is located within the City of Temecula's SOI. Although Riverside County is responsible for administration of land use decisions within the SOI (see page LU-38 of the City of Temecula's General Plan Land Use Element), it still is considered part of the City of Temecula's "Planning Area," and thus is acknowledged accordingly. According to the City of Temecula's General Plan Land Use Element, the City of Temecula must be consulted regarding any proposed development projects within their SOI.

[4] This portion of Segment 2 of the Proposed Project is located within the City of Temecula's SOI. Although Riverside County is responsible for administration of land use decisions within the SOI (see page LU-38 of the City of Temecula's General Plan Land Use Element), it still is considered part of the City of Temecula's "Planning Area," and thus is acknowledged accordingly. According to the City of Temecula's General Plan Land Use Element, the City of Temecula must be consulted regarding any proposed development projects within their SOI.

Sources: City of Menifee, 2010; City of Murrieta, 2010; City of Perris, 2011; Riverside County, 2006, 2008a, 2008b, 2010, 2012; City of Temecula, 2005a, 2005b, 2014a, and 2014b.

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California Public Resource Code Section 12220(g)

The California Public Resources Code governs forestry, forests, and forest resources, as well as range and forage lands, within the state. "Forest land" is defined by Public Resources Code Section 12220(g) as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." "Timberland" is defined by Public Resources Code §4526 as, "land, other than land owned by the federal government..., which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees."

Forest Taxation and Reform Act (Stats. 1976, Ch. 176)

Commercial timberlands are afforded protection through the state's Forest Taxation Reform Act of 1976, which mandates the creation of timberland preserve zones (TPZs) to restrict and protect commercial timber resources. The Proposed Project does not cross any TPZ land (FindLaw, 2013).

California Farmland Mapping and Monitoring Program

The CDC, under the Division of Land Resource Protection, has established the FMMP which monitors the conversion of the state's farmland to and from agricultural use. The FMMP map series identifies eight classifications and uses a minimum mapping unit size of 10 acres. The FMMP also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The FMMP maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" every two years (CDC, 2007). Important farmlands are divided into the following five categories based on their suitability for agriculture:

- **Prime Farmland**. Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date
- **Farmland of Statewide Importance**. Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date
- **Unique Farmland**. Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date
- **Farmland of Local Importance.** Land of importance to the local agricultural economy as determined by a local advisory committee (LAC) convened in each county by the FMMP in cooperation with the USDA-SCS and the county board of supervisors.
- **Grazing Land.** Land on which the existing vegetation is suited to the grazing of livestock

The Proposed Project crosses mapped farmlands as shown in Figure 4.2-1 FMMP Farmland Classifications.

4.2.2.3 Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (G.O.) 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters." Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county and cities' regulations are not applicable as the county and cities do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local regulations is provided for informational purposes only.

Riverside County General Plan

The Harvest Valley/Winchester Area Plan, Sun City/Menifee Valley Area Plan, the Southwest Area Plan, the Land Use Element, and the Multipurpose Open Space Element govern the land use and agricultural resources in Riverside County, including the Proposed Project area. The following policies identified in the General Plan Land Use Element and Multipurpose Open Space Element would be relevant to the Proposed Project (Riverside County, 2008a):

- Policy LU 5.4: Ensure that development and conservation land uses do not infringe upon existing public utility corridors, including fee owned rights-of-way and permanent easements, whose true land use is that of "public facilities." This policy would ensure that the "public facilities" designation governs over what otherwise may be inferred by the large scale general plan maps
- Policy LU 16.1: Encourage retaining agriculturally designated lands where agricultural activity can be sustained at an operational scale, where it accommodates lifestyle choice, and in locations where impacts to and from potentially incompatible uses, such as residential uses, are minimized, through incentives such as tax credits
- Policy LU 16.2: Protect agricultural uses, including those with industrial characteristics (dairies, poultry, hog farms, etc.) by discouraging inappropriate land division in the immediate proximity and allowing only uses and intensities that are compatible with agricultural uses
- Policy LU 16.4: Encourage conservation of productive agricultural lands. Preserve prime agricultural lands for high-value crop production
- Policy LU 16.5: Continue to participate in the California Land Conservation Act (the Williamson Act) of 1965
- OS 7.3: Encourage conservation of productive agricultural lands and preservation of prime agricultural lands

The following policy from the Southwest Area Plan is related to agriculture resources and relevant to the Proposed Project; no other goals or policies from the other planning areas were found to be relevant to the Proposed Project.

- SWAP 15.1: Protect farmland and agricultural resources in the Southwest planning area through adherence to the Agricultural Resources section of the General Plan Multipurpose Open Space Element and the Agriculture section of the General Plan Land Use Element, as well as the provisions of the Citrus/Vineyard Policy Area

Riverside County Zoning Ordinance

The Proposed Project would be located on three agricultural zoning designations that are zoned for agricultural uses per the Riverside County Zoning Ordinance: A-1, A-P, and R-R.

- In the A-1 zone, public utility facilities are subject to the approval of a plot plan pursuant to Section 18.30
- In the A-P zone, public utility facilities are an allowable use
- In the R-R zone, public utility facilities are an allowable use and include "structures and the pertinent facilities necessary and incidental to the development and transmission of electrical power and gas such as hydroelectric power plants, booster or conversion plants, transmission lines, pipelines and the like" (Riverside County, 2010)

Riverside County Integrated Project

The Riverside County Integrated Project (RCIP) is a program to coordinate future conservation, transportation, housing, and economic needs in Riverside County, including the update of the 2003 Riverside County General Plan. The vision of the RCIP reflects the importance of agricultural uses and the sensitivity of development in and around agricultural areas (Riverside County, 2006):

> Agricultural land that remains economically viable, either as a permanent or temporary economic resource, is well protected by policies, ordinances, and design regulations applicable to new development that may be planned nearby.

City of Menifee General Plan

The following policy identified in the City of Menifee General Plan Open Space and Conservation Element would be relevant to the Proposed Project (City of Menifee, 2013):

- Policy OCS-6.1: Protect both existing farms and sensitive uses around them as agricultural acres transition to more developed land uses

City of Murrieta General Plan

The City of Murrieta General Plan 2035 does not contain any specific agricultural resource goals or policies relevant to the Proposed Project.

City of Perris General Plan

The following goals and policies identified in the City of Perris General Plan Conservation Element would be relevant to the Proposed Project (City of Perris, 2005a):

- Goal I. Orderly conversion of agricultural lands to other approved land uses
  - Policy I.A. Establish growth management strategies to ensure the proper timing and economic provisions for utilities, major streets and other facilities so that orderly development would occur

City of Temecula General Plan

The City of Temecula General Plan 2005 does not contain any specific agricultural resource goals or policies relevant to the Proposed Project.

4.2.3 Significance Criteria

The significance criteria for assessing the impacts to aesthetics come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- 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
- Conflict with existing zoning for agricultural use, or a Williamson Act contract
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])
- Result in the loss of forest land or conversion of forest land to non-forest use
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use

4.2.4 Impact Analysis

Methodology

To evaluate potential impacts on agriculture and forest resources, maps developed by the CDC FMMP were reviewed to determine whether the Proposed Project would convert Farmland (Prime Farmland, Unique Farmland, Farmland of Local Importance, or Farmland of Statewide Importance) to non-agricultural uses. Williamson Act data and zoning regulations were reviewed to determine where the Proposed 115 kV subtransmission line crosses lands under Williamson Act contracts or otherwise is zoned for agricultural or forest use. Project activities during construction and Operations and Maintenance (O&M) were evaluated within the context of existing agricultural zoning and farmland protections to determine whether the project may result in changes that would directly or indirectly lead to conversion of Farmland or timber resources to non-agricultural or non-forest use.

Direct and indirect impacts were estimated by identifying the total number of project features, project feature location, and farmland classification within each project feature location. Project features include pole installation, removal, and reconfiguring of existing pole structures; material staging yards; pulling and tensioning setup areas; underground trenching of conduit; and several other features. The number of project features within each farmland classification was identified through geospatial analysis of data provided by Riverside County. Permanent acres of disturbance resulting from the Proposed Project were estimated by multiplying the total number of features by unit disturbance (in acres), as presented in Chapter 3, Project Description (see Table 3.5).

4.2.4.1 Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, to nonagricultural use?

Construction

Less Than Significant Impact. The Proposed Project would cause temporary disturbance to Farmland due to site preparation associated with construction activities. Specifically, temporary impacts would occur from construction methods that would be used to install the Proposed 115 kV subtransmission line (including the removal and reconfiguration of existing pole structures and reconductoring activities) and associated components. Staging yards would be sited to avoid conversion of Farmland to other uses. Construction vehicle traffic along private roads, agricultural roads, and access and spur roads would result in a temporary increase in traffic that may result in short-duration disruptions of farming and grazing activities. Although agricultural activities may be temporarily impacted, no Farmland would be converted to nonagricultural use during construction activities. At the conclusion of construction, the majority of disturbed areas would be returned to as close to pre-construction conditions as feasible, or to the conditions agreed upon between the landowner and SCE. Therefore, the temporary impacts of construction are considered to be a less than significant impact.

Operation

Less Than Significant Impact. The Proposed 115 kV subtransmission line would be located primarily adjacent to existing SCE facilities and would follow a combination of existing roadways or existing and newly acquired easements and franchise rights (the "Right-of-Way"). The Proposed Project would permanently convert 5.3 acres of Farmland to nonagricultural use because of the installation of anchors, the use and maintenance of a permanent unpaved access road, and installation of subtransmission structures (see Table 4.2-3 Permanently Converted Farmland, for impact acreages). Installation of anchors would account for approximately 1.3 acres of total Farmland disturbance. Installation of subtransmission source line poles would account for approximately 3.8 acres of total Farmland disturbance. In addition, SCE would utilize and maintain one existing permanent unpaved access road, which would account for the loss of approximately 0.2 acre of Farmland of Local Importance.

Table 4.2-3 Permanently Converted Farmland

Proposed Project Feature/Farmland Category	Acres Permanently Disturbed
Anchors	
Prime Farmland	0.1
Farmland of Statewide Importance	0.0
Unique Farmland	0.0
Farmland of Local Importance	1.2
Total Farmland Disturbed for Anchors	**1.3**
Subtransmission Source Line Poles	
Prime Farmland	0.3
Farmland of Statewide Importance	0.2
Unique Farmland	0.0
Farmland of Local Importance	3.3
Total Farmland Disturbed for Subtransmission Source Line Poles	**3.8**
Permanent Access Road	
Prime Farmland	0.0
Farmland of Statewide Importance	0.0
Unique Farmland	0.0
Farmland of Local Importance	0.2
Total Farmland Disturbed for Access Road Use and Maintenance	**0.2**
Total Farmland Disturbed for the Proposed Project	**5.3**
Source: Compiled by AECOM in 2014	

The conversion of 5.3 acres of lands identified as Farmland would represent a loss of 0.0012 percent of the approximately 433,859 acres of Farmland identified in Riverside County. The impact from converting such a small percentage of the Farmland identified in Riverside County to non-agricultural use would be less than significant.

O&M of the Proposed Project would consist of routine maintenance and emergency repair of the facilities, and could include activities such as repairing conductors, washing or replacing insulators, repairing or replacing other hardware components, replacing poles, tree trimming, brush and weed control, and access road maintenance. O&M could result in disturbance to agricultural lands, but as with construction disturbance to agricultural lands, would represent such a de minimis loss relative to the total farmland identified in Riverside County that the impact would be less than significant.

4.2.4.2 Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Construction

Less Than Significant Impact. The Proposed Project would traverse land zoned for agriculture (A-1, A-P, and R-R) by Riverside County.

In the A-1 zone, public utility facilities are subject to the approval of a plot plan pursuant to Section 18.30; in the A-P zone, public utility facilities are an allowable use; and in the R-R zone, public utility facilities are an allowable use and include "structures and the pertinent facilities necessary and incidental to the development and transmission of electrical power and gas such as hydroelectric power plants, booster or conversion plants, transmission lines, pipelines and the like" (Riverside County, 2008). Because public utility facilities are a compatible use, a less than significant impact would occur.

As described in Section 4.2.1.3, the Proposed Project would cross three Agricultural Preserve parcels that carry active Williamson Act – Prime Agricultural Land status, known as Sites 1, 2, and 3. Site 1 is located on the east side of Leon Road between Grand Avenue and Simpson Road. Segment 1 of the Proposed Project preliminarily would follow the east side of Leon Road in this location and would be within this 10.2-acre parcel of active Williamson Act/Agricultural Preserve land. The second Agricultural Preserve parcel that carries Williamson Act – Prime Agricultural Land status is known as Site 2 and located on the east side of Leon Road between Garbani Road and Wickerd Road. Segment 1 of the Proposed Project would also preliminarily follow the east side of Leon Road in this location and would be within this 149.4-acre parcel of active Williamson Act/Agricultural Preserve land. Site 3 is located on the east side of Leon Road just south of Allen Road. The existing Valley-Auld-Triton 115 kV Subtransmission Line proposed for reconductoring (Proposed Project [Segment 2]) currently follows the east side of Leon Road in this location and is within this 158.8-acre parcel of active Williamson Act/Agricultural Preserve land. Temporary impacts would occur from construction methods that would be used to install the Proposed Project, including the removal and reconfiguration of existing pole structures and associated components. After the completion of construction, temporarily disturbed areas would be restored and returned to agricultural use. Therefore, temporary construction activities would not conflict with existing zoning for agricultural use or Williamson Act contracts. Therefore, the impacts would be less than significant.

Operation

Less Than Significant Impact. The Proposed Project would be operated and maintained on lands zoned for agricultural use and lands under Williamson Act contracts. The installation of approximately five wood poles and one TSP within Site 1 on Leon Road between Grand Avenue and Simpson Road would permanently disturb approximately 0.26 of an acre of this parcel. The parcel is approximately 350 by 1,255 feet in size, with a total area of approximately 10 acres.

The installation of approximately 13 wood poles and three anchors within Site 2 on Leon Road between Garbani Road and Wickerd Road would permanently disturb approximately 0.48 of an acre of this parcel. The parcel is approximately 2,560 by 2,530 feet in size, with a total area of approximately 149 acres.

The reconductoring of approximately 12 existing LWS poles within Site 3 would not result in any permanent disturbance within this parcel. The wood guy stub pole proposed for removal and replacement located on the west side of Leon Road at the Allen Road intersection, falls outside the boundary of Site 3.

Government Code Section 51238.1 (a) requires that for a use to be compatible with Williamson Act enrollment, it must not disrupt the purpose of the Williamson Act contract, which is primarily to preserve agricultural lands. According to the CDC, a compatible use cannot significantly compromise the long-term productive agricultural capability of the land, displace an agricultural use, impair continuing agricultural uses on the site or adjacent contracted sites, nor lead to the loss of agricultural uses on adjacent lands (CDC, 2011). The permanent disturbance from installing new structures within Sites 1 and 2 would be approximately 0.5 percent of the total area of both parcels. Because the Proposed Project would convert such a small percentage of Williamson Act land to non-agricultural use, and would not impair continuing agricultural activities within each parcel, O&M of the Proposed Project is not expected to conflict with any applicable Williamson Act contract. Therefore, impacts would be less than significant.

Pertaining to the several Agricultural Preserve parcels located adjacent to the Proposed Project along Matthews Road, Leon Road, and Chandler Lane, California Government Code 51238(a) indicates that, unless local organizations declare otherwise, the erection, construction, alteration, or maintenance of gas, electric, water, or communications facilities are compatible uses within any agricultural preserve. Therefore, impacts would be less than significant.

4.2.4.3 Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?

Construction

No Impact. The Proposed Project is not zoned as forest land or timberland for timber production. Proposed Project construction would not cause the rezoning of lands zoned for forest land or timberland, nor would it conflict with timber production. The Proposed Project

development would not conflict with existing forest land or timberland zoning. Therefore, no impact would occur.

Operation

No Impact. The Proposed Project is not zoned as forest land or timberland for timber production. Proposed Project O&M would not cause the rezoning of lands zoned for forest land or timberland, nor would it conflict with timber production. The Proposed Project development would not conflict with existing forest land or timberland zoning. Therefore, no impact would occur.

4.2.4.4 Would the project result in the loss of forest land or conversion of forest land to non-forest use?

Construction

No Impact. As described previously in Section 4.2.1.5, Existing Forest Land and Designated Forest Land, there is currently no forest land located within the vicinity of the Proposed Project (CAL FIRE, 2003; Riverside County, 2008). Proposed Project construction would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

Operation

No Impact. Currently, no forest land is located within the vicinity of the Proposed Project. Proposed Project O&M would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

4.2.4.5 Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

Construction

No Impact. Temporary construction activities associated with the Proposed Project are not anticipated to involve changes to the existing environment that would result in the conversion of Farmland to non-agricultural use. No forest land is located within the Proposed Project area, and the Proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact would occur.

Operation

No Impact. O&M of the Proposed Project would consist of routine maintenance, including equipment testing, equipment monitoring, and repair, as well as emergency and routine procedures for service continuity. These routine maintenance activities would not result in changes to the environment that could result in the conversion of farmland to nonagricultural use. Because no forest land is located within the vicinity of the Proposed Project, the Proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use.

The Proposed Project would not induce growth but instead is designed to respond to existing growth and demand trends and therefore, would not be expected to involve any other changes in the existing environment that would result in the conversion of Farmland to non-agricultural or conversion of forest land to non-forest use. Therefore, no impact would occur.

4.2.5 Applicant Proposed Measures

Because no significant impacts to agriculture or forestry would occur as a result of the Proposed Project, no avoidance or minimization measures are proposed.

4.2.6 Alternative 2

The Alternative Project would be approximately 19 miles in total length and would extend approximately 4 miles longer than the Proposed Project. Segment 1 of the Alternative Project would follow a route identical to that of Segment 1 of the Proposed Project for the first approximately 8 miles, and then would turn west at Scott Road for approximately 2 miles to the intersection of Menifee Road. Segment 1 of the Alternative Project would continue south on Menifee Road for approximately 3 miles, following an existing 115 kV subtransmission line to the intersection of unimproved Clinton Keith Road. From Clinton Keith Road, it would extend east for approximately 1 mile until its termination point near SCE's Auld 115/12 kV Substation, for a total of approximately 14 miles.

Segment 2 of the Alternative Project would begin at an existing TSP located east of Auld 115/12 kV Substation and would connect to the existing Valley-Auld-Triton 115 kV Subtransmission Line paralleling Los Alamos Road for approximately 0.5 of a mile until it reaches Briggs Road where it would turn south for approximately 0.5 of a mile. It would then span SR-79 in an easterly direction and parallel Benton Road for approximately 0.5 of a mile before merging with Segment 2 of the Proposed Project. At this location, Segment 2 of the Alternative Project would follow the same approximately 3-mile route as Segment 2 of the Proposed Project, for a total of 5 miles.

The Alternative Project along the shared approximately 8-mile and 3-mile portions of Segment 1 and Segment 2 would include the same improvements as the Proposed Project. Therefore, impacts along these shared areas would be the same as the Proposed Project. The following discussion describes the resources and impacts where the Alternative Project would differ from the Proposed Project.

Segment 1 of the Alternative Project

For the remaining approximately 6 miles (from the intersection of Scott Road and Leon Road until its termination point near Auld 115/12 kV Substation), Segment 1 of the Alternative Project would traverse through the City of Menifee, unincorporated Riverside County, and portions of the City of Murrieta. It would follow existing roadways, with the exception of one portion of the

route that would follow existing SCE facilities to the intersection of unimproved Clinton Keith Road.

Segment 1 of the Alternative Project would cross Farmland of Local Importance and Grazing Land and would not be located on lands subject to Williamson Act contract. There are no agricultural preserves adjacent to Segment 1 of the Alternative Project.

Segment 2 of the Alternative Project

For the first approximately 2 miles (from a TSP located east of Auld 115/12 kV Substation continuing east and southeast until it reaches the TSP located at the southeast corner of Leon Road and Benton Road), Segment 2 of the Alternative Project would traverse through the City of Murrieta and unincorporated Riverside County. It would follow the existing Valley-Auld-Triton 115 kV Subtransmission Line and existing roadways.

Segment 2 of the Alternative Project would cross Farmland of Local Importance and would be adjacent to agricultural preserves along Briggs Road and Benton Road; however, none of these parcels carry Williamson Act status.

Impacts with respect to Williamson Act lands for the Alternative Project would be less than those for the Proposed Project. However, the Alternative 115 kV subtransmission line would be approximately 4 miles longer than the Proposed 115 kV subtransmission line and would likely include more subtransmission structures, which would disturb a small amount of additional farmland as compared to the Proposed Project. For both construction and O&M of the Alternative Project, impacts would be less than significant.

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Section 4.3
Air Quality

4.3 Air Quality

This section describes air quality in the area of the Valley South 115 kilovolt (kV) Subtransmission Project (Proposed Project), as well as the potential impacts and project alternatives.

4.3.1 Environmental Setting

The Proposed Project consists of Segments 1 and 2 and is 15.4 miles in total length. The Proposed Project is located within unincorporated Riverside County and the cities of Menifee, Murrieta, and Temecula (Figure 4.0 Segment 1 and Segment 2 Locations). Segment 1 of the Proposed Project involves construction of a new 115 kV subtransmission line originating at Southern California Edison's (SCE's) existing Valley 500/115 kV Substation and connecting at a tubular steel pole (TSP) located at the southeast corner of Leon Road and Benton Road, for a total of 12 miles. Segment 1 of the Proposed Project would cross through the City of Menifee, unincorporated Riverside County, and a small portion of the City of Murrieta.

Segment 2 of the Proposed Project involves reconductoring a section of the existing Valley-Auld-Triton 115 kV Subtransmission Line. Segment 2 of the Proposed Project begins at the TSP located at the southeast corner of Leon Road and Benton Road and continues south to the existing Terminal TSP located on the south side of Nicolas Road, for a total of 3.4 miles. Segment 2 of the Proposed Project would cross through unincorporated Riverside County and the City of Temecula. Additionally, SCE may utilize an existing material staging yard outside of Segments 1 and 2 in the City of Perris.

The Proposed Project is located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), which encompasses 10,473 square miles, consisting of the four-county South Coast Air Basin (SCAB) and Riverside County portions of the Salton Sea Air Basin and the Mojave Desert Air Basin. The SCAB, which is a subarea of the SCAQMD's jurisdiction, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The 6,745-square mile SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties.

Air quality in a region is primarily affected by the type and amount of contaminants emitted into the atmosphere. However, topographical and meteorological conditions, such as temperature, wind, humidity, precipitation, cloud cover, and influx of solar radiation, substantially affect the dispersion or trapping of the emitted pollutants, thus playing a major role in the prevailing air quality conditions. Within the SCAB, frequent formation of inversion layers traps the air

pollutants in the basin, leading to increased pollution episodes. The SCAB has low mixing heights and light winds, which are conducive to the accumulation of air pollutants.

Temperature has a substantial impact on wind flow, pollutant dispersion, vertical mixing, and photochemistry within the region. Annual average temperatures throughout the SCAB vary from low to middle 60 degrees Fahrenheit (ºF). January is the coldest month throughout the SCAB, with average minimum temperatures of 47ºF in downtown Los Angeles and 36ºF in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100ºF. More than 90 percent of the rainfall in the region occurs from November through April. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thundershowers near the coast and slightly heavier shower activity in the eastern portion of the region and near the mountains. Rainy days comprise 5 percent to 10 percent of all days in the SCAB, with the frequency being higher near the coast. Meteorological data was obtained from the Riverside Municipal Airport, located approximately 22 miles northwest of the Proposed Project area, and represents general historic meteorological conditions. That station recorded annual average high and low temperatures of 78.9°F and 50.3°F, respectively, from 1996 to 2008. The average annual rainfall measured during the same period was 7 inches (Western Regional Climate Center, 2013).

SCAQMD monitors levels of various pollutants using a network of monitoring stations throughout the SCAB. The closest ambient air monitoring station to the Proposed Project is the Perris monitoring station, located at 237-1/2 North D Street in Perris, approximately 5 to 10 miles northwest of the Proposed Project area depending on location along the alignment. This station monitors ambient concentrations of ozone (O_3) and particles smaller than 10 microns diameter (PM_{10}). The next closest ambient air monitoring station to the Proposed Project is the Lake Elsinore monitoring station, located at 506 West Flint Street, Lake Elsinore, in Western Riverside County, approximately 12 miles to the west of the Proposed Project area. This station monitors ambient concentrations of carbon monoxide (CO), nitrogen dioxide (NO_2), and particles smaller than 2.5 microns diameter ($PM_{2.5}$). Monitoring data for sulfur dioxide (SO_2) was obtained from the Rubidoux monitoring station, located at 5888 Mission Boulevard in Riverside, approximately 24 miles northwest of the Proposed Project area. Background ambient air quality data from 2011 through 2013, which represents the most recent three years of available data, have been compared to the most stringent of either the California Ambient Air Quality Standards (CAAQS) or the National Ambient Air Quality Standards, and these data are presented in Table 4.3-1 Background Air Quality Data (2011–2013).

Air basins in California have been formally designated as attainment or nonattainment for each CAAQS, based on monitoring data for the most recent three years of data, as presented in Table 4.3-1 Background Air Quality Data (2011–2013).

Table 4.3-1 Background Air Quality Data (2011–2013)

Pollutant (Units)	Ambient Air Quality Standards		Maximum Observed Concentration (Number of Days Standard Exceeded)		
	State Standard	Federal Standard	2011	2012	2013
CO (ppm)					
1-Hour	20	35			--
8-Hour	9.0	9	0.67	0.52	
O_3 (ppm)					
1- Hour	0.09	N/A	0.125 (44)	0.111 (28)	0.108 (17)
8-Hour	0.070	0.075	0.112 (54)	0.093 (46)	0.090 (34)
NO_2 (ppm)					0.038
1-Hour	0.18	0.100	0.050	0.048	--
Annual Arithmetic Mean	0.030	0.053	0.010	0.010	
SO_2 (ppm)					--
1-Hour	0.25	0.075	--	--	--
24-Hour	0.04	0.14	0.001	0.001	
PM_{10} ($\mu g/m^3$)					
24-Hour	50	150	65.0	62.0	70.0
Annual Arithmetic Mean	20	N/A	29.2	26.5	33.6
$PM_{2.5}$ ($\mu g/m^3$)[1]					
24-Hour	--	35	40.7	24.9	23.1
Annual Arithmetic Mean	12	12.0	10.8	10.5	--
Lead ($\mu g/m^3$)					
30-Day Average	1.5	N/A	--	--	--
Calendar Quarter	--	1.5	--	--	--
Rolling 3-Month Average	--	0.15	--	--	--
Sulfates ($\mu g/m^3$)					
24-Hour	25	N/A	--	--	--

Notes:
$\mu g/m^3$ = micrograms per cubic meter; N/A = not available; ppm = parts per million;
-- = Insufficient (or no) data available at monitoring stations within Western Riverside County to determine the value.
Data for O_3 and PM_{10} are from the Perris monitoring station; data for CO, $PM_{2.5}$, and NO_2 are from the Lake Elsinore monitoring station; data for SO_2 are from the Rubidoux monitoring station.
Source: CARB, 2014a

The following are descriptions of the state attainment designations:

- **Unclassified**: A pollutant is designated as unclassified if the data are incomplete and do not support a designation of attainment or nonattainment
- **Attainment**: A pollutant is designated attainment if the CAAQS for that pollutant was not violated at any site in the area
- **Nonattainment**: A pollutant is designated nonattainment if there was at least one violation of a CAAQS for that pollutant in the area
- **Nonattainment/Transitional**: This is a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the CAAQS for that pollutant

The following are descriptions of the federal attainment designations:

- **Attainment**: Any area that meets the national primary or secondary air quality standard for the pollutant
- **Nonattainment**: Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant
- **Unclassifiable**: Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant

Area designations for SCAB are presented in Table 4.3-2 SCAB Attainment Status.

Table 4.3-2 SCAB Attainment Status

Pollutant	State Designation	Federal Designation
CO	Attainment	Attainment[2]
O_3[1]	Nonattainment (1-hour) Nonattainment (8-hour)	Nonattainment (1-hour)[1] Nonattainment (8-hour)[1]
PM_{10}	Nonattainment	Attainment[2]
$PM_{2.5}$	Nonattainment	Nonattainment
NO_2	Attainment	Attainment[2]
SO_2	Attainment	Attainment
Lead	Attainment (Riverside County)	Attainment (Riverside County)

Notes:

[1] Federal nonattainment designations for O_3 are categorized into six classifications including marginal, moderate, serious, severe-15, severe-17, or extreme. The federal designation classification within the SCAB is extreme nonattainment for 1-hour ozone (concentration values of 0.280 ppm and above) and extreme nonattainment for 8-hour ozone (concentration values of 0.175 ppm and above).

[2] Areas designated nonattainment for one of the NAAQS but that later met the standard are redesignated to attainment

Pollutant	State Designation	Federal Designation
and described as "maintenance" areas. To ensure the air quality in the area continues to meet the NAAQS, local air districts are required to developed and implement Maintenance Plans.		
Source: CARB 2014b, USEPA, 2014		

4.3.2 Regulatory Setting

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

4.3.2.1 Federal

Federal Clean Air Act as Amended, 40 Code of Federal Regulations Part 60

These statutes provide the United States Environmental Protection Agency (USEPA) with the authority to set ambient air quality standards and grant a waiver for California to set stricter standards. Other states have the choice of adopting federal standards or the more stringent CAAQS.

USEPA also requires each state to prepare a State Implementation Plan that outlines the state regulations and programs that will be implemented to demonstrate how a state will attain or maintain the ambient air quality standards within a given period of time. Through the Clean Air Act (as amended), USEPA also implements on- and off-road engine emission reduction programs that periodically phase-in engine efficiency requirements and/or ancillary engine or exhaust equipment that result in cleaner emissions from on- and off-road equipment.

4.3.2.2 State

California Clean Air Act

Through these statutes, the California Air Resources Board (CARB) has the authority to develop ambient air quality standards for the state. CARB also is responsible for setting vehicle emission standards and fuel specifications, and for regulating emissions from other sources, such as consumer products and certain types of mobile equipment (e.g., lawn and garden equipment, industrial forklifts). CARB also implements the Off-road Mobile Sources Emission Reduction Program, as further described below, to reduce emissions from off-road equipment. CARB also implements the Portable Equipment Registration Program, a program that evaluates portable equipment and provides a registry for qualifying equipment to be exempt from obtaining separate air quality permits to operate within each air basin.

California's Diesel Programs

Risk Reduction Plan

CARB intends to reduce diesel particulate matter (DPM) emissions from on- and off- road vehicle operations by 85 percent, from year 2000 levels by 2020. As part of California's Diesel Risk Reduction Plan, CARB has passed numerous regulations including retrofit regulations and new engine standards for diesel-fueled vehicles, to reduce diesel emissions from vehicles and equipment that are already in use.

Diesel Fuels

California Diesel Fuel Regulations (Title 13 California Code of Regulations [CCR] §§2281–2285; Title 17 CCR §93114) provide standards for diesel fuel.

Regulation for In-Use, Off-Road Diesel-Fueled Fleets

CARB's In-Use Off-road Diesel-Fueled Fleets Regulation (Title 13 CCR §§2449, 2449.1, 2449.2) establishes various requirements for owners of off-road diesel vehicles with engines having a minimum power of 25 horsepower, including reporting and recordkeeping, limits on nonessential idling, and emission performance requirements, effective January 2014. The purpose of this regulation is to reduce oxides of nitrogen (NO_X), DPM, and other criteria pollutant emissions from in-use, off-road diesel-fueled vehicles.

4.3.2.3 Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (G.O.) 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters." Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county and cities' regulations are not applicable as the county and cities do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local regulations is provided for informational purposes only.

South Coast Air Quality Management District

In addition to supporting the CARB and USEPA air quality programs, SCAQMD also develops plans and implements control measures for regulated pollutants in the SCAB, primarily those affecting stationary sources such as factories and plants. The SCAQMD is required to update plans for improving air quality in the basin as needed or every three years. SCAQMD's Final 2012 Air Quality Management Plan (AQMP) (SCAQMD, 2012) is the latest document designed to satisfy requirements of both federal and state clean air laws. The plan outlines policies and practices intended to achieve attainment levels for criteria pollutants and avoid future levels that exceed applicable standards.

SCAQMD Rule 403, Fugitive Dust is designed to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions. Rule 403, Fugitive Dust prohibits construction activities from generating visible dust in the atmosphere beyond the property line (SCAQMD, 2005). The rule requires earthmoving activities to use the best available control measures specified in the rule to minimize fugitive dust emissions. Available control measures include, but are not limited to: stabilizing disturbed areas with water, using a chemical stabilizer, or covering an area with a tarp or other suitable cover; and requiring that materials transported off-site to be covered or stabilized with at least 6 inches of freeboard space from the top of the container. These types of dust control actions are required for all projects within the SCAB that are capable of generating fugitive dust.

Riverside County General Plan

Several air quality policies are contained within the Land Use and Multipurpose Open Space elements of the Riverside County General Plan and establish goals to maintain consistency with the SCAQMD AQMP, reduce motor vehicle emissions, and protect sensitive receptors from health risks related to poor air quality conditions (Riverside County, 2008).

City of Menifee General Plan

The Open Space and Conservation Element of the City of Menifee's General Plan contains goals and policies related to reducing impacts to air quality at the local level by minimizing pollution and particulate matter (City of Menifee, 2013). Specifically, these goals and policies include the following: meeting state and federal clean air standards by minimizing particulate emissions from construction activities; buffering sensitive land uses from major air pollutant emission sources; complying with regional, state, and federal standards and programs for control of all airborne pollutants and noxious odors, regardless of source; supporting the Riverside County Regional Air Quality Task Force, the Southern California Association of Government's Regional Transportation Plan/Sustainable Communities Strategy, and the SCAQMD AQMP to reduce air pollution at the regional level; and complying with the mandatory requirements of Title 24 Part 11 of the California Building Standards Code and Title 24 Part 6 Building and Energy Efficiency Standards (City of Menifee, 2013).

City of Murrieta General Plan

The City of Murrieta adopted the 2035 General Plan in 2011, which includes goals to maintain consistency with the SCAQMD AQMP and improve transportation measures to reduce motor vehicle related air quality impacts. Specific policies have been established to reduce air quality impacts during construction including but not limited to: maintaining compliance with SCAQMD's Rule 403 Fugitive Dust; implementing best management practices for Operations and Maintenance (O&M) of construction vehicles; and, reducing unnecessary vehicle idling in compliance with CARB's In-Use Off-Road Diesel Fueled Fleet regulations.

City of Perris General Plan

The City of Perris approved the Comprehensive General Plan 2030, Conservation Element, which includes goals and measures to improve air quality within the local jurisdiction, in 2005 (City of Perris, 2008).

City of Temecula General Plan

The City of Temecula General Plan was adopted in 1993 and updated in 2005 (City of Temecula, 2005). The Air Quality Element contains specific goals, policies, and implementation programs aimed at achieving improvements to air quality, integration of air quality issues into land use planning decisions, reducing air pollutant emissions from automobiles, and conserving energy.

4.3.3 Significance Criteria

The significance criteria for assessing the impacts to air quality come from the California Environmental Quality Act (CEQA) Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O_3 precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

Thresholds for Construction Emissions

The SCAQMD adopted the CEQA Air Quality Handbook in 1993 (SCAQMD, 1993). The purpose of the handbook is to provide lead agencies, consultants, and project applicants with a framework and uniform methods for preparing air quality evaluations for environmental documents. For the purposes of evaluating the air quality impacts of a project under CEQA, the SCAQMD has established quantitative thresholds that are used to evaluate a project's impacts. The significance thresholds for construction activities are listed in Table 4.3-3 SCAQMD Construction Air Quality Significance Thresholds and include both emissions and concentration-related significance thresholds. The SCAQMD is in the process of developing an "Air Quality Analysis Guidance Handbook" to replace the CEQA Air Quality Handbook. While the new handbook is being prepared, the SCAQMD provides supplemental and updated information on its CEQA Handbook webpage. Although these are guidelines only, and their use is not required or mandated by the SCAQMD, they are considered appropriate for evaluating potential air quality impacts from construction of a project.

Table 4.3-3 SCAQMD Construction Air Quality Significance Thresholds

Pollutant	Construction
Criteria Pollutants Mass Daily Thresholds	
NO_X	100 lbs/day
VOC	75 lbs/day
PM_{10}	150 lbs/day
$PM_{2.5}$	55 lbs/day
SO_X	150 lbs/day
CO	550 lbs/day
Lead	3 lbs/day

Thresholds for Operational Emissions

As shown in Table 4.3-4 SCAQMD Operational Air Quality Significance Thresholds, the SCAQMD has also established quantitative thresholds that are used to evaluate a project's operational impacts.

Table 4.3-4 SCAQMD Operational Air Quality Significance Thresholds

Pollutant	Operation
Criteria Pollutants Mass Daily Thresholds	
NO_x	55 lbs/day
VOC	55 lbs/day
PM_{10}	150 lbs/day
$PM_{2.5}$	55 lbs/day
SO_x	150 lbs/day
CO	550 lbs/day
Lead	3 lbs/day

Thresholds for Localized Significance

SCAQMD has also developed a localized significance threshold (LST) methodology to evaluate the potential localized impacts of criteria pollutants from construction and operational activities (SCAQMD, 2003). The LST methodology requires an analysis to determine whether emissions of specified criteria pollutants would cause ambient air quality standards to be exceeded at the nearest off-site receptor.

SCAQMD has developed LST lookup tables that utilize the allowable concentrations of pollutants combined with distances from the construction or operational areas to calculate allowable emission rates. The lookup tables are specific for the source/receptor area in the SCAB because they also include pollutant background and meteorological data specific to the area. Table 4.3-5 Localized Significance Thresholds, shows the maximum allowable emissions from SCAQMD's look-up tables (please see Appendix E, Construction Emission Calculations, for details).

Table 4.3-5 Localized Significance Thresholds

Pollutant	Nearest Receptor Distance (meters)	Allowable Emissions Interpolation[1] (lbs/day)[2]
Substation Modifications[3]		
CO	205	4,469
NO_x	205	341
PM_{10}	205	69
$PM_{2.5}$	205	21
Subtransmission Line Construction[4]		
CO	25	750
NO_x	25	162
PM_{10}	25	4
$PM_{2.5}$	25	3
Subtransmission Line Construction at Valley 500/115 kV Substation[4]		
CO	205	4,469
NO_x	205	341
PM_{10}	205	69
$PM_{2.5}$	205	21

Pollutant	Nearest Receptor Distance (meters)	Allowable Emissions Interpolation[1] (lbs/day)[2]
Distribution Relocation[4]		
CO	25	750
NO_x	25	162
PM_{10}	25	4
$PM_{2.5}$	25	3
Telecommunications Construction[5]		
CO	25	750
NO_x	25	162
PM_{10}	25	4
$PM_{2.5}$	25	3

Notes:

1 Allowable emissions are from Appendix C to Final Localized Significance Methodology, SCAQMD, revised October 2009, downloaded from http://www.aqmd.gov/ceqa/handbook/LST/LST.html

2 Interpolated emissions = Emissions 1 + (Receptor distance - Distance 1) x (Emissions 2 - Emissions 1)/(Distance 2 - Distance 1)

3 Closest sensitive receptor is located approximately 200 meters north of the northern fence line of Valley 500/115 kV Substation. Allowable emissions are for a 5-acre site.

4 Closest sensitive receptor is located within 25 meters of the Proposed 115 kV subtransmission line and areas where distribution relocation would occur. Allowable emissions are for a 1-acre site.

5 Closest sensitive receptor is located with 150 and 200 meters from either Triton Substation or Valley 500/115 kV Substation. Allowable emissions are for a 1-acre site.

Source: Data compiled by AECOM in 2014

4.3.4 Impact Analysis

4.3.4.1 Would the project conflict with or obstruct implementation of the applicable air quality plan?

Construction

No Impact. Growth projections from local general plans adopted by cities in the SCAB and vehicle-miles-traveled projections developed by the Southern California Association of Governments are some of the inputs used to develop the AQMP. A project's conformity with the AQMP can be assessed by comparing the scope of the Proposed Project with the General Plan designation in which it would be located. A project that results in an increase in population

above that which was forecasted would be inconsistent with the AQMP. Because construction of the Proposed Project would not result in a population increase, the Proposed Project would not conflict with the growth projections used to develop the 2012 AQMP. Please see Section 4.13, Population and Housing, for a discussion of economic and population growth.

Furthermore, the emissions associated with Project construction would be temporary and would represent a very small fraction of the regional emission inventories included in the 2012 SCAQMD AQMP. Construction equipment would be operated in compliance with all applicable SCAQMD requirements, including fugitive dust control measures as set forth in SCAQMD Rule 403.

The Proposed Project's construction emissions are not expected to substantially contribute to the regional emissions and would not conflict with the growth projections in the AQMP, and therefore, the Proposed Project would not conflict with or obstruct implementation of the AQMP and there would be no impact.

Operation

No Impact. O&M would not differ in scope or scale from operations-related activities currently conducted along the 115 kV subtransmission line. The emissions associated with Project operation would represent a very small fraction of the regional emission inventories included in the 2012 SCAQMD AQMP. Operations equipment such as pick-up trucks would be operated in compliance with all applicable SCAQMD requirements, including fugitive dust control measures set forth in SCAQMD Rule 403. Thus, operation-related emissions are not expected to substantially contribute to the regional emissions and the Project would not conflict with or obstruct implementation of the AQMP.

Furthermore, because O&M of the Proposed Project would not result in a population increase, the Proposed Project would not conflict with the growth projections used to develop the 2012 AQMP. Please see Section 4.13, Population and Housing, for a discussion of economic and population growth.

O&M of the Proposed Project would not conflict with the implementation of the AQMP, and there would be no impact.

4.3.4.2 Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Construction

Regional Impacts

Less Than Significant Impact. Emissions during construction would be produced by off-road construction equipment, on-road motor vehicles, and earth-moving activities that generate fugitive dust. The methodology used to evaluate sources of construction emissions is discussed below.

Peak daily construction emissions from the operation of diesel-fueled off-road equipment were estimated using equipment-specific emission factors. The emission factors were obtained from CARB's OFFROAD (2011) model and represent the fleet-wide average emission factors within the SCAB during 2018, the approximate year of construction start.

Estimated emissions associated with diesel-fueled off-road equipment and on-road motor vehicles at potential staging yards are based on use of up to four staging yards per day for the duration of the Proposed Project. SCE identified six potential staging yard locations that could be used during Proposed Project construction. However, SCE determined that only two sites would be utilized. The final decision on which sites to use would be evaluated and decided upon by SCE's contractor prior to the start of construction. Emissions from the operation of one yard were multiplied by a factor of four to represent emissions from multiple yards. SCE's analysis of the emissions associated with four staging yards is thus conservative considering it is unlikely that SCE would ever use more than two staging yards. Schedule assumptions, hours of operation, equipment type, and detailed emission calculations are provided in Appendix E, Construction Emission Calculations, of the PEA.

Peak daily emissions from the operation of gasoline-fueled and diesel-fueled on-road motor vehicles, such as personnel commute vehicles, haul trucks, dump trucks and flat-bed trucks were estimated using CARB's On-Road EMFAC2007 mobile source emission factors, obtained from the SCAQMD website (SCAQMD, 2008b). For this analysis, it has been assumed that field/ construction personnel would travel a roundtrip distance of 60 miles, based on an assumed trip origin within 30 miles of the Proposed Project. Haul and delivery truck trips are based on proximity to any of the potential material staging yards anticipated to be used during construction activities.

Fugitive dust emissions from earthmoving activities vary as a function of parameters such as soil silt content, soil moisture, wind speed, and acreage of disturbance area. Emissions from earthmoving activities are typically associated with material handling activities including haul truck loading and unloading, scraper unloading, bulldozer activity, and grading. Fugitive dust emissions were estimated using USEPA's Compilation of Air Pollutant Factors (AP-42), from Chapters 11 and 13, Section 11.9.1, Western Surface Coal Mining (per Chapter 13.2.3 Heavy Construction Operations) and Section 13.2.4, Aggregate Handling and Storage Piles, and based on miles traveled, material loading (in tons per day), and hours of operation.

Additional fugitive dust emissions would be generated due to travel on unpaved roads. The methodology utilized to quantify fugitive dust emissions from travel on unpaved roads is based on the USEPA's AP-42 Chapter 13, Section 13.2.2, Unpaved Roads. Based on geographic information system data, the analysis assumed the roundtrip distance on unpaved roadways would be approximately 6.9 miles per vehicle per day. Of the 6.9 miles of unpaved roadways, approximately 2.7 miles occur on public roadways and 4.2 miles occur on private roadways or rights-of-way.

Maximum daily emissions during construction, including operation of both on-site and off-site sources, were calculated for comparison with the SCAQMD's mass daily emissions CEQA significance thresholds (see Table 4.3-3 SCAQMD Construction Air Quality Significance Thresholds), as presented in Table 4.3-6 Peak Daily Construction Emissions.

This analysis conservatively assumes that the peak daily emissions during construction of each component of the Proposed Project could potentially occur concurrently on the same worst-case scenario day, and therefore, the peak daily emissions from each component have been added together to represent the worst-case maximum daily emissions during construction of the entire Proposed Project. Each component's peak daily construction emissions are listed in Table 4.3-6 Maximum Daily Construction Emissions, and the maximum daily construction emissions are compared to the SCAQMD mass daily emissions CEQA significance thresholds for construction emissions. Even though this scenario in which the peak day of all four construction components is not likely to occur, in order to present a conservative analysis, the worst-case maximum daily emissions are presented and compared to the applicable thresholds.

To minimize the impacts of Proposed Project emissions, SCE would implement Applicant Proposed Measures (APMs) AIR-1, APM AIR-2 and APM AIR-3, which would reduce NOx and PM_{10} emissions below the SCAQMD's mass daily emissions CEQA significance thresholds of 100 and 150 lb/day, respectively. Construction emissions would further be reduced by complying with the local general plans' applicable air quality measures (as presented in Section 4.3.2.3, Local), and CARB's diesel programs, which would include restrictions on off-road equipment engine idling to less than five minutes.

In addition, as discussed above, SCAQMD has developed and implemented Rule 403, Fugitive Dust, to reduce the amount of particulate matter entrained in the ambient air as a result of human-made fugitive dust sources, by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.

Table 4.3-6 Maximum Daily Construction Emissions, lbs/day[1]

Construction Component	VOC	CO	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Peak Daily Emissions from Substation Modification	3.75	23.06	21.85	0.07	3.26	0.91
Peak Daily Emissions from Subtransmission Line Construction	11.42	64.21	36.51	0.19	72.77	9.12
Peak Daily Emissions from Distribution Relocation	4.32	26.33	25.39	0.07	36.14	3.88
Peak Daily Emissions from Telecommunications Construction	2.10	12.60	13.09	0.03	1.07	0.08
Maximum Daily Emissions =	**21.59**	**126.20**	**96.84**	**0.37**	**113.23**	**13.99**
SCAQMD Mass Daily Thresholds	75	550	100	150	150	55
Would the Proposed Project with Implementation of Applicant Proposed Measures exceed the SCAQMD Threshold?[2]	No	No	No	No	No	No

Construction Component	VOC	CO	NO_X	SO_X	PM_{10}	$PM_{2.5}$

Notes:

[1] Assumptions and detailed calculations are provided in Table 2 of Appendix E, Construction Emission Calculations of the PEA.

[2] Peak daily and maximum daily emissions include APM's described in Section 4.3.5. "Uncontrolled" peak daily emissions, or peak daily emissions without the reductions achieved through implementation of APMs, are presented in Appendix E (Appendix E-2).

Source: Data compiled by AECOM in 2014

Compliance with the regulatory requirements described above, and implementation of APM AIR-1, APM AIR-2, and APM AIR-3, would reduce regional air quality impacts below a level of significance. Therefore, regional air quality impacts would be considered less than significant.

Localized Impacts

Less Than Significant Impact. As shown in Table 4.3-7 Construction Localized Significance Threshold Analysis, maximum daily on-site construction emissions would not exceed the maximum allowable emissions for any pollutant. Therefore, construction of the Proposed Project would not cause or contribute to a localized exceedance of an air quality standard. The impact would be less than significant.

Table 4.3-7 Construction Localized Significance Threshold Analysis

Pollutant	Maximum Daily On-site Emissions (lbs/day)	Nearest Receptor Distance (meters)	Allowable Emissions Interpolation[1] (lbs/day)[2]	Allowable Exceeded?
Substation Modifications[3]				
CO	14.86	205	4,469	No
NO_x	9.79	205	341	No
PM_{10}	1.51	205	69	No
$PM_{2.5}$	0.40	205	21	No
Subtransmission Line Construction[4]				
CO	16.53	25	750	No
NO_x	17.80	25	162	No
PM_{10}	4.93	25	4	No
$PM_{2.5}$	0.72	25	3	No
Subtransmission Line Construction at Valley 500/115 kV Substation[4]				

Pollutant	Maximum Daily On-site Emissions (lbs/day)	Nearest Receptor Distance (meters)	Allowable Emissions Interpolation[1] (lbs/day)[2]	Allowable Exceeded?
CO	20.96	205	4,469	No
NO_x	26.05	205	341	No
PM_{10}	3.16	205	69	No
$PM_{2.5}$	1.37	205	21	No
Distribution Relocation[4]				
CO	19.98	25	750	No
NO_x	22.17	25	162	No
PM_{10}	0.90	25	4	No
$PM_{2.5}$	0.31	25	3	No
Telecommunications Construction[5]				
CO	9.78	25	750	No
NO_x	12.36	25	162	No
PM_{10}	0.62	25	4	No
$PM_{2.5}$	0.03	25	3	No

Notes:

[1] Allowable emissions are from Appendix C to Final Localized Significance Methodology, SCAQMD, revised October 2009, downloaded from http://www.aqmd.gov/ceqa/handbook/LST/LST.html

[2] Interpolated emissions = Emissions 1 + (Receptor distance - Distance 1) x (Emissions 2 - Emissions 1)/(Distance 2 - Distance 1)

[3] Closest sensitive receptor is located approximately 200 meters north of the northern fence line of Valley 500/115 kV Substation. Allowable emissions are for a 5-acre site

[4] Closest sensitive receptor is located within 25 meters of the Proposed 115 kV subtransmission line and areas where distribution relocation would occur. Allowable emissions are for a 1-acre site.

[5] Closest sensitive receptor is located with 150 and 200 meters from either Triton Substation or Valley 500/115 kV Substation. Allowable emissions are for a 1 acre site.

Source: Data compiled by AECOM in 2014

Operation

Regional Impacts

Less Than Significant Impact. O&M emission sources include personnel vehicle trips associated with routine maintenance activities along the alignment of the Proposed 115 kV subtransmission line or at existing substations proposed for modification. Criteria pollutant

emissions from maintenance trips were estimated using CARB's On-Road EMFAC2007 mobile source emission factors, obtained from the SCAQMD's website (SCAQMD, 2008b). For this analysis, it has been assumed that maintenance personnel would travel a roundtrip distance of 60 miles, based on trip origin within 30 miles of the Proposed Project.

Maximum daily emissions during O&M were calculated for comparison with the SCAQMD's mass daily emissions CEQA significance thresholds (see Table 4.3-4 SCAQMD Operational Air Quality Significance Thresholds) to evaluate whether the O&M activities could cause or contribute to regional violations of air quality standards.

Table 4.3-8 Maximum Daily O&M Emissions compares peak daily O&M emissions with the SCAQMD's mass daily emissions CEQA significance thresholds.

Table 4.3-8 Maximum Daily O&M Emissions, lbs/day

Source	VOC	CO	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Motor Vehicle Exhaust	0.04	0.35	0.03	0.00	0.01	0.01
Motor Vehicle Fugitive PM	N/A	N/A	N/A	N/A	15.82	1.57
Total	**0.04**	**0.35**	**0.03**	**0.00**	**0.01**	**0.01**
SCAQMD Mass Daily Thresholds	55	550	55	150	150	55
Would the Proposed Project exceed the Thresholds (Y/N)?	No	No	No	No	No	No
Source: Data compiled by AECOM in 2014						

The estimated maximum daily emissions during O&M of the Proposed Project are much less than the corresponding SCAQMD mass daily emissions CEQA significance thresholds and emissions of these pollutants during O&M and would therefore not contribute to regional air quality violations. Impacts would be less than significant.

Localized Impacts

Less Than Significant Impact. The emissions associated with O&M of the Proposed Project would not occur at a single location and would not cause or contribute to a localized exceedance of an air quality standard. Therefore, this impact would be less than significant.

4.3.4.3 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O_3 precursors)?

Construction

Less Than Significant Impact. The SCAB is classified as nonattainment for O_3, PM_{10} and $PM_{2.5}$. Table 4.3-6 Maximum Daily Construction Emissions shows that peak daily emissions, with implementation of APM AIR-1, APM AIR-2, and APM AIR-3, would not exceed the SCAQMD's mass daily emissions CEQA significance thresholds. Therefore, construction of the Proposed Project would not result in a cumulatively considerable net increase of criteria pollutant emissions. Thus, the cumulative impact from these emissions is expected to be less than significant.

Operation

Less Than Significant Impact. As presented in Table 4.3-8 Maximum Daily O&M Emissions, the Proposed Project would not result in the generation of criteria pollutant emissions which exceed the SCAQMD thresholds for O&M activities. These thresholds are designed to identify those projects which may result in significant levels of air pollution and to assist the region in attaining applicable state and federal ambient air quality standards. Because O&M of the Proposed Project would not exceed any SCAQMD air quality significance threshold, its O&M would not result in substantial levels of emissions, and these emissions are not cumulatively considerable or cumulatively significant. The impact would be less than significant.

4.3.4.4 Would the project expose sensitive receptors to substantial pollutant concentrations?

Construction

Less Than Significant Impact. According to SCAQMD, sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The nearest sensitive receptors are residential properties within 50 feet of the Proposed Project on Leon Road, Bow Bridge Drive, and Promontory Parkway. Table 4.3-7 Construction Localized Significance Threshold Analysis includes additional information on the nearest sensitive receptors and distances from the Proposed Project components.

Construction activities would include operation of diesel-fueled off-road equipment, resulting in emissions of DPM, a recognized Toxic Air Contaminant (TAC). However, because carcinogenic DPM health risk is estimated using the annual average concentration over long exposure periods (40 to 70 years), the Office of Environmental Health Hazard Assessment (OEHHA) does not suggest estimating carcinogenic health risk for exposure periods less than nine years. Construction of the Proposed Project, over an estimated duration of approximately 16 months, would be substantially less than the nine-year exposure period indicated by OEHHA. The most

conservative distance to evaluate exposure to sensitive receptors is 25 meters (80 feet). As presented in Table 4.3-7 Construction Localized Significance Threshold Analysis, emissions generated during construction of the Proposed Project would not exceed the LSTs and, therefore, would not substantially affect nearby receptors. The impact would be less than significant.

Operation

Less Than Significant Impact. The Proposed Project would not result in a new source of substantial TAC emissions because, as described above, the only source of emissions would be from routine maintenance vehicle operations for the Proposed 115 kV subtransmission line (see Table 4.3-8 Peak Daily O&M Emissions). The impact would be less than significant.

4.3.4.5 Would the project create objectionable odors affecting a substantial number of people?

Construction

Less Than Significant Impact. Construction of the Proposed Project would not cause a substantial amount of objectionable odors. Some odors associated with the Proposed Project would result during short-term, temporary construction from on- and off-road equipment exhaust, but these emissions would disperse very quickly in the open area. Therefore, the impact would be less than significant.

Operation

Less Than Significant Impact. O&M of the Proposed Project would not cause objectionable odors and would not create objectionable odors affecting a substantial number of people. Minimal odors from vehicle exhaust could occur during O&M activities, but these potential odors would be sporadic and dispersed over distances of 60 miles or more. Therefore, the impact would be less than significant.

4.3.5 Applicant Proposed Measures

The following APM(s) would be implemented to reduce air quality impacts associated with the Proposed Project:

APM AIR-1 – Construction crew vehicle speeds on non-public unpaved roadways would be restricted to 15 miles per hour.

APM AIR-2 – Dust suppression would be implemented on all active non-public unpaved access roadways (e.g. using water or chemical suppressant).

APM AIR-3 – Off-road diesel construction equipment with a rating between 100 and 750 horsepower will be required to use engines compliant with USEPA Tier 3 non-road engine standards. In the event a Tier 3 engine is not available, that engine would be equipped with a Tier 2 engine and documentation would be provided from a local rental company stating that

the rental company does not currently have the required diesel-fueled off-road construction equipment or that the vehicle is specialized and is not available to rent. Similarly, if a Tier 2 engine is not available, that engine would be equipped with a Tier 1 engine and documentation would be provided.

4.3.6 Alternative 2

The Alternative Project would be approximately 19 miles in total length and would extend approximately 4 miles longer than the Proposed Project. Segment 1 of the Alternative Project would follow a route identical to that of Segment 1 of the Proposed Project for the first approximately 8 miles, and then would turn west at Scott Road for approximately 2 miles to the intersection of Menifee Road. Segment 1 of the Alternative Project would continue south on Menifee Road for approximately 3 miles, following an existing 115 kV subtransmission line to the intersection of unimproved Clinton Keith Road. From Clinton Keith Road, it would extend east for approximately 1 mile until its termination point near SCE's Auld 115/12 kV Substation, for a total of approximately 14 miles.

Segment 2 of the Alternative Project would begin at an existing TSP located east of Auld 115/12 kV Substation and would connect to the existing Valley-Auld-Triton 115 kV Subtransmission Line paralleling Los Alamos Road for approximately 0.5 of a mile until it reaches Briggs Road where it would turn south for approximately 0.5 of a mile. It would then span SR-79 in an easterly direction and parallel Benton Road for approximately 0.5 of a mile before merging with Segment 2 of the Proposed Project. At this location, Segment 2 of the Alternative Project would follow the same approximately 3-mile route as Segment 2 of the Proposed Project, for a total of 5 miles.

The Alternative Project along the shared approximately 8-mile and 3-mile portions of Segment 1 and Segment 2 would include the same improvements as the Proposed Project. Therefore, impacts along these shared areas would be the same as the Proposed Project. The following discussion describes the resources and impacts where the Alternative Project would differ from the Proposed Project.

Segment 1 of the Alternative Project

For the remaining approximately 6 miles (from the intersection of Scott Road and Leon Road until its termination point near Auld 115/12 kV Substation), Segment 1 of the Alternative Project would traverse through the City of Menifee, unincorporated Riverside County, and portions of the City of Murrieta. It would follow existing roadways, with the exception of one portion of the route that would follow existing SCE facilities to the intersection of unimproved Clinton Keith Road.

Segment 2 of the Alternative Project

For the first approximately 2 miles (from a TSP located east of Auld 115/12 kV Substation continuing east and southeast until it reaches the TSP located at the southeast corner of Leon

Road and Benton Road), Segment 2 of the Alternative Project would traverse through the City of Murrieta and unincorporated Riverside County. It would follow the existing Valley-Auld-Triton 115 kV Subtransmission Line and existing roadways.

The Alternative Project is approximately 4 miles longer than the Proposed Project. Therefore, compared to the Proposed Project, construction and O&M of the Alternative Project would include an incrementally greater quantity of equipment and vehicles over a longer time period and occur in closer proximity to residences, schools and other places where humans are located. Thus, impacts related to air quality would be incrementally greater for the Alternative Project. SCE would implement APM AIR-1, APM AIR-2 and APM AIR-3 to reduce fugitive dust and NOx emissions during construction and O&M. Therefore, impacts associated with the Alternative Project would be greater; however, the peak daily equipment and workforce estimates assumed would be similar to those assumed for the Proposed Project and therefore maximum daily emissions would be similar to the Proposed Project and would remain less than significant.

4.3.7 References

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Section 4.4
Biological Resources

4.4 Biological Resources

This section describes the biological resources in the area of the Valley South 115 kilovolt (kV) Subtransmission Project (Proposed Project), as well as the potential impacts and project alternatives.

Additional detail on biological resources survey methodologies, survey findings, and impacts for both the Proposed Project and Alternative Project can be found in the Biological Resources Assessment (BRA) prepared by TRC Solutions, Incorporated (TRC) in 2013 (TRC, 2013), specifically for Segment 1 of the Proposed Project and Segment 1 of the Alternative Project. AECOM Environment (AECOM) prepared a BRA Addendum to address biological resources associated with Segment 2 of the Proposed Project and Segment 2 of the Alternative Project (AECOM, 2014a).

4.4.1 Environmental Setting

The Proposed Project consists of Segments 1 and 2 and is 15.4 miles in total length. The Proposed Project is located within unincorporated Riverside County and the cities of Menifee, Murrieta, and Temecula (Figure 4.4-1 Location Map). Segment 1 of the Proposed Project involves construction of a new 115 kV subtransmission line originating at Southern California Edison's (SCE's) existing Valley 500/115 kV Substation and connecting at a tubular steel pole (TSP) located at the southeast corner of Leon Road and Benton Road, for a total of 12 miles. Segment 1 of the Proposed Project would cross through the City of Menifee, unincorporated Riverside County, and a small portion of the City of Murrieta.

Segment 2 of the Proposed Project involves reconductoring a section of the existing Valley-Auld-Triton 115 kV Subtransmission Line. Segment 2 of the Proposed Project begins at the TSP located at the southeast corner of Leon Road and Benton Road and continues south to the existing Terminal TSP located on the south side of Nicolas Road, for a total of 3.4 miles. Segment 2 of the Proposed Project would cross through unincorporated Riverside County and the City of Temecula. Additionally, SCE may utilize an existing material staging yard outside of Segments 1 and 2 in the City of Perris.

Methodology

At the request of SCE, surveys for biological resources were conducted by TRC and its subcontractors in 2012 and 2013 for Segment 1 of the Proposed Project, and by AECOM and its subcontractors in 2013 and 2014 for Segment 2 of the Proposed Project. For detailed information

related to biological resource surveys performed by TRC and AECOM, refer to the BRAs included as Appendix F BRA Segment 1 and Segment 2.

Some areas could not be physically accessed due to fences indicating private property. To avoid unauthorized trespass onto these areas, biologists conducted visual surveys using binoculars when feasible. After April 16, 2014, pedestrian or visual biological surveys were not conducted on two inaccessible properties within the Proposed Project. The locations of these properties are depicted in Figure 4.4-9 Special Status Plant Species, Figure 4.4-12 Special Status Bird Species, and Figure 4.4-13 Special Status Mammal Species Figure 4.4-13 Amphibian and Reptile Species. The first property begins at Allen Road and extends south from Auld Road, past Borel Road until just north of the water tower. The second property occurs just south of Nicolas Road near the terminal TSP. Thus, surveys for resources conducted after April 16 did not take place on these properties or buffer areas. Table 4.4-1 Biological Resource Surveys Conducted for the Proposed Project and Corresponding Survey Buffers indicates surveys that were conducted prior to April 16, 2014, and did include the later inaccessible properties. Additional information regarding surveys that were or were not conducted on the inaccessible properties is included in Appendix F BRA Segment 1 amd Segment 2.

Study and Survey Areas

Background research and field surveys presented in this document focus on the area within a 500-foot buffer (250 feet from the estimated centerline of existing roads) where construction would occur for the 15.4 mile Proposed Project (hereafter, Proposed Project Study Area). The Proposed Project Study Area totals approximately 1,113 acres. The approximate boundaries of the Proposed Project Study Area and outlying material staging areas are shown in Figure 4.4-2 Proposed Project Study Area.

Database records were examined from a wider area to provide broader context. Some surveys extended outside the Proposed Project Study Area for species that are more mobile or for species that required protocol surveys for a broader survey area. This 1,000-foot buffer (500-foot distance from the estimated centerline) and a 0.5 mile buffer (for nesting raptors in 2012 only) is hereafter referred to as the Proposed Project Survey Area. See Table 4.4-1 Biological Resource Surveys Conducted for the Proposed Project and Corresponding Survey Buffers.

Literature and Desktop Review

Prior to performing biological field surveys, literature research was conducted on special status species distribution and records; conservation planning efforts; protected areas; designated United States Fish and Wildlife Service (USFWS) Critical Habitat; and geomorphic, hydrological, and soil conditions within the Proposed Project and surroundings. Specifically, records from the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CNDDB, 2012; CDFW, 2014a) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2014) within 3 miles of the Proposed Project and within the nine surrounding United States Geological Survey (USGS) map quadrangles were reviewed for documented and potential occurrences of any special status species or habitats. The Riverside County Integrated Project internet parcel report generator

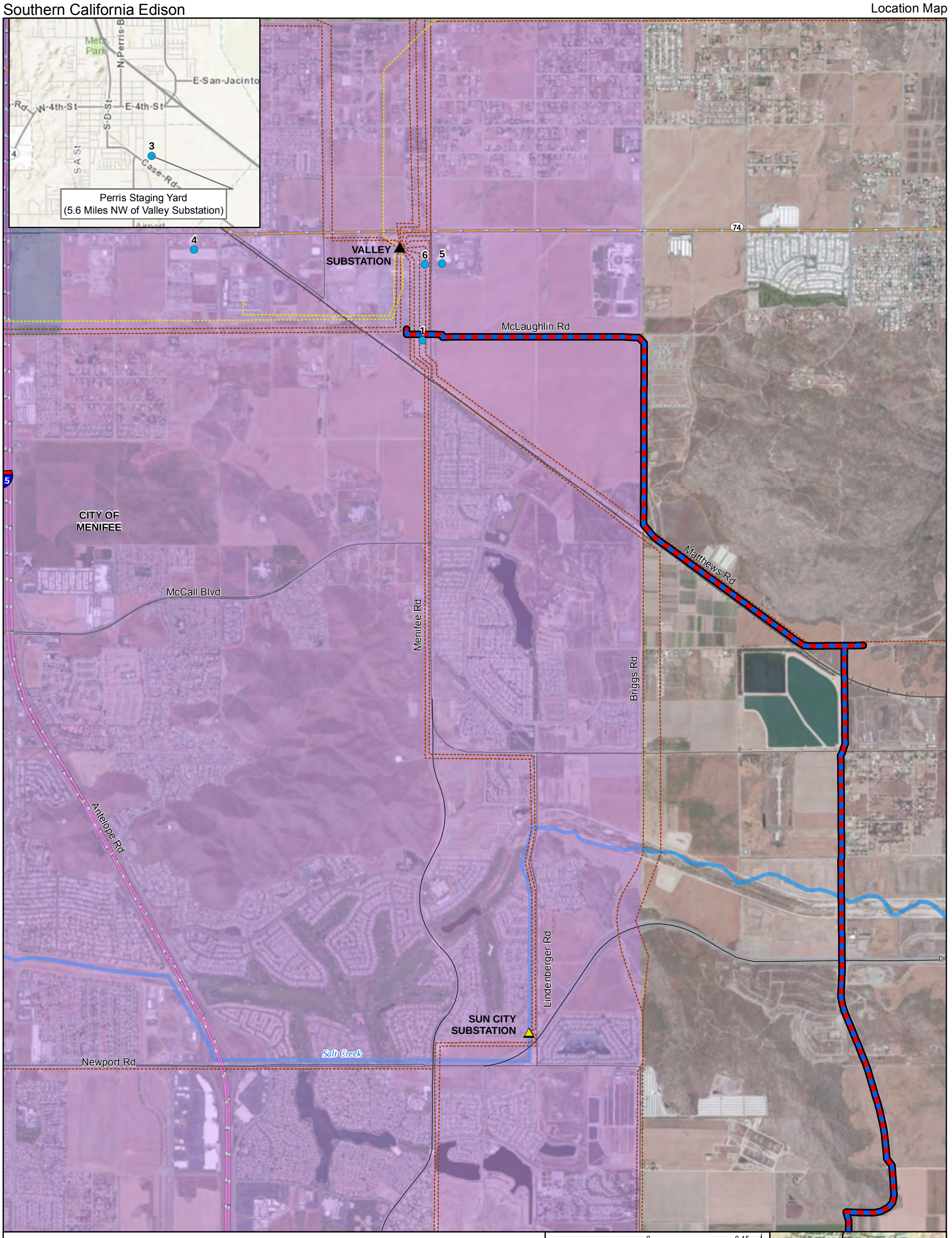
(Riverside County, 2013) was searched by Assessor's Parcel Numbers for required species or other taxon surveys.

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-1

Southern California Edison

Location Map

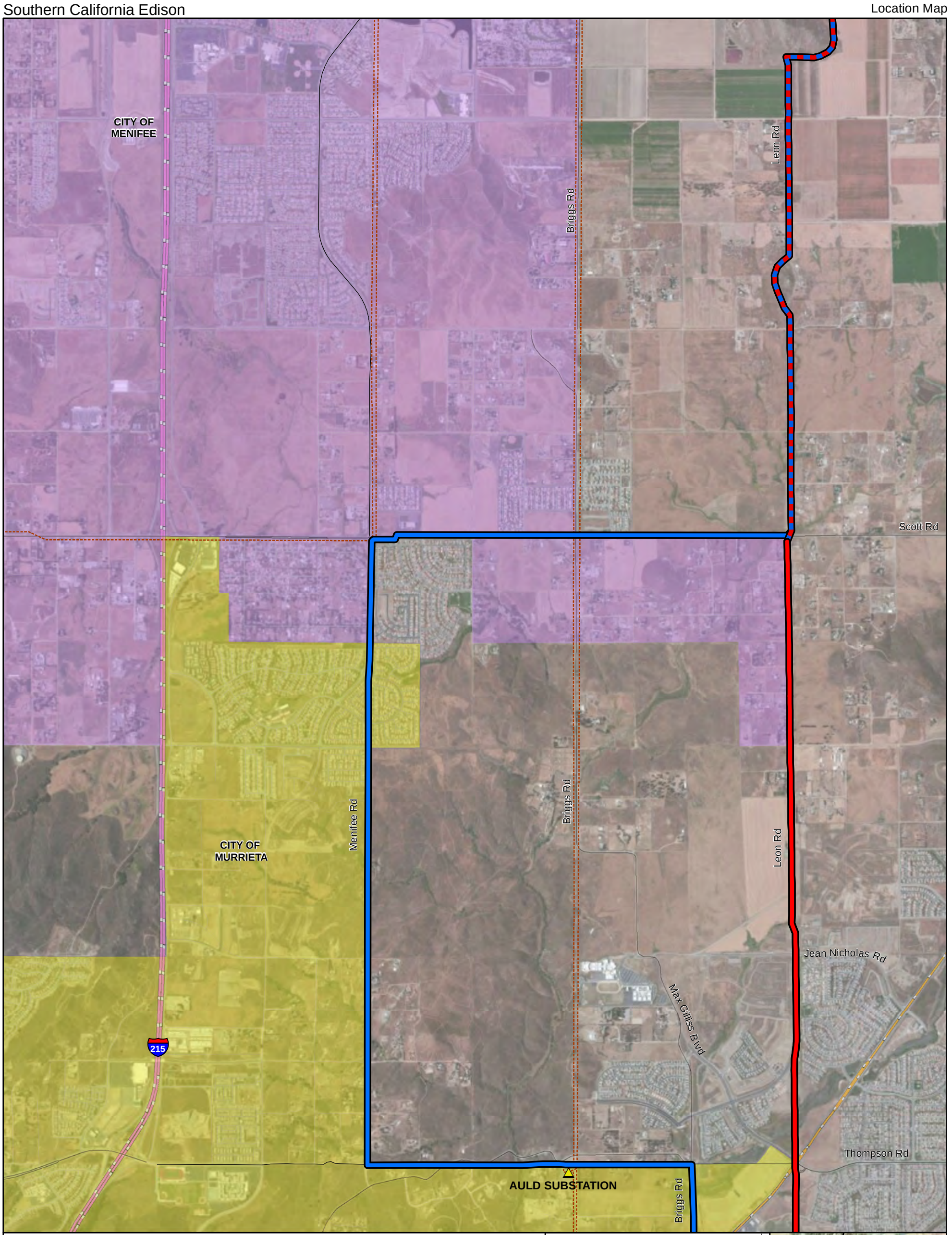


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-1

Southern California Edison

Location Map



Proposed Project
- Proposed 115 kV Subtransmission Line
- Common to Both

Alternative Project
- Alternative 115 kV Subtransmission Line

Potential Material Staging Yards
- Staging Yards 1-6

Existing Facilities
- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Sheet (2 of 3)

Sources:
SCE, 2014;
Riverside County, 2014;
Esri, 2014

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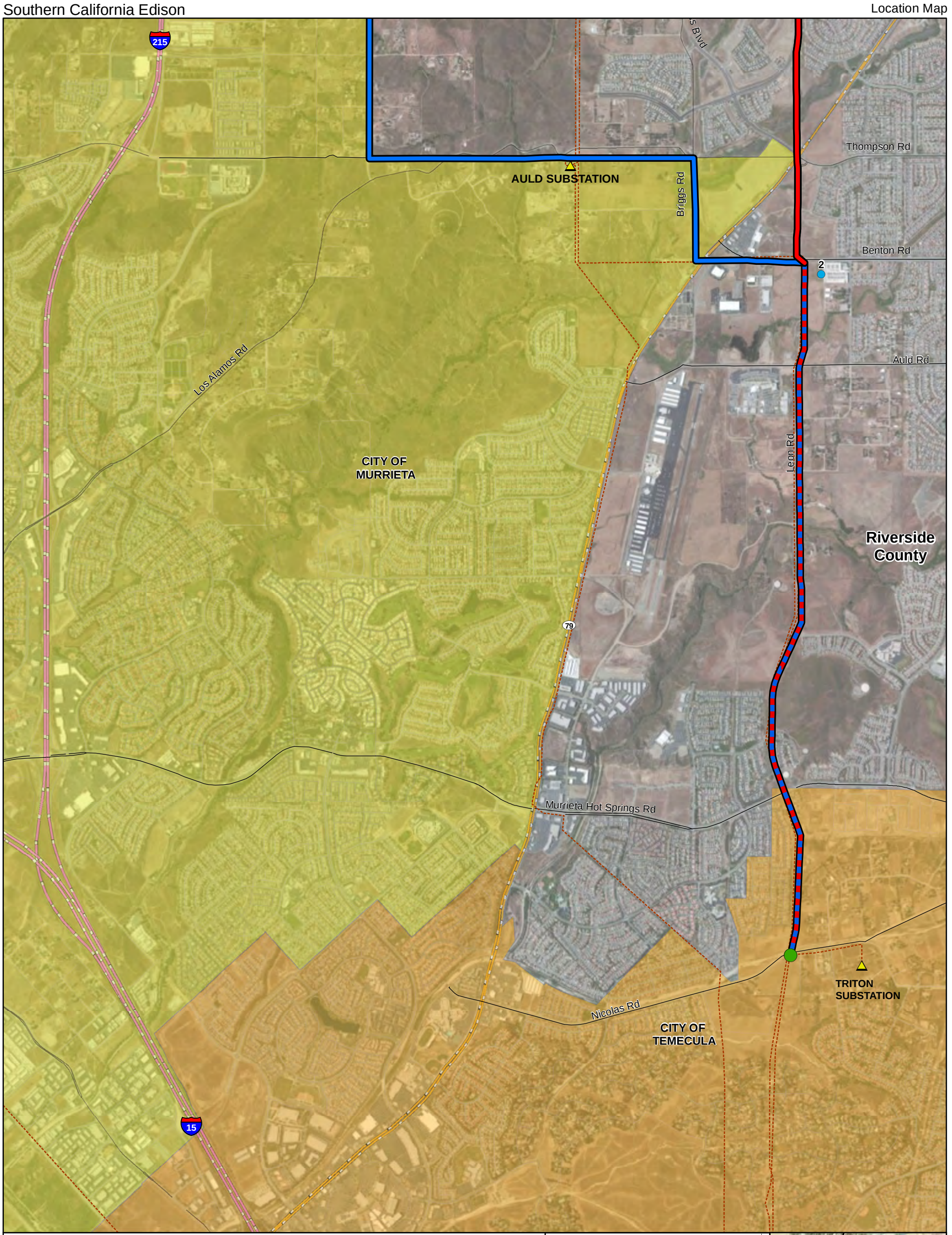


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-1

Southern California Edison

Location Map



Proposed Project

- Proposed 115 kV Subtransmission Line
- Common to Both

Alternative Project

- Alternative 115 kV Subtransmission Line

Potential Material Staging Yards

- Staging Yards 1-6

Existing Facilities

- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Sheet (3 of 3)

Sources:
SCE, 2014;
Riverside County, 2014;
Esri, 2014

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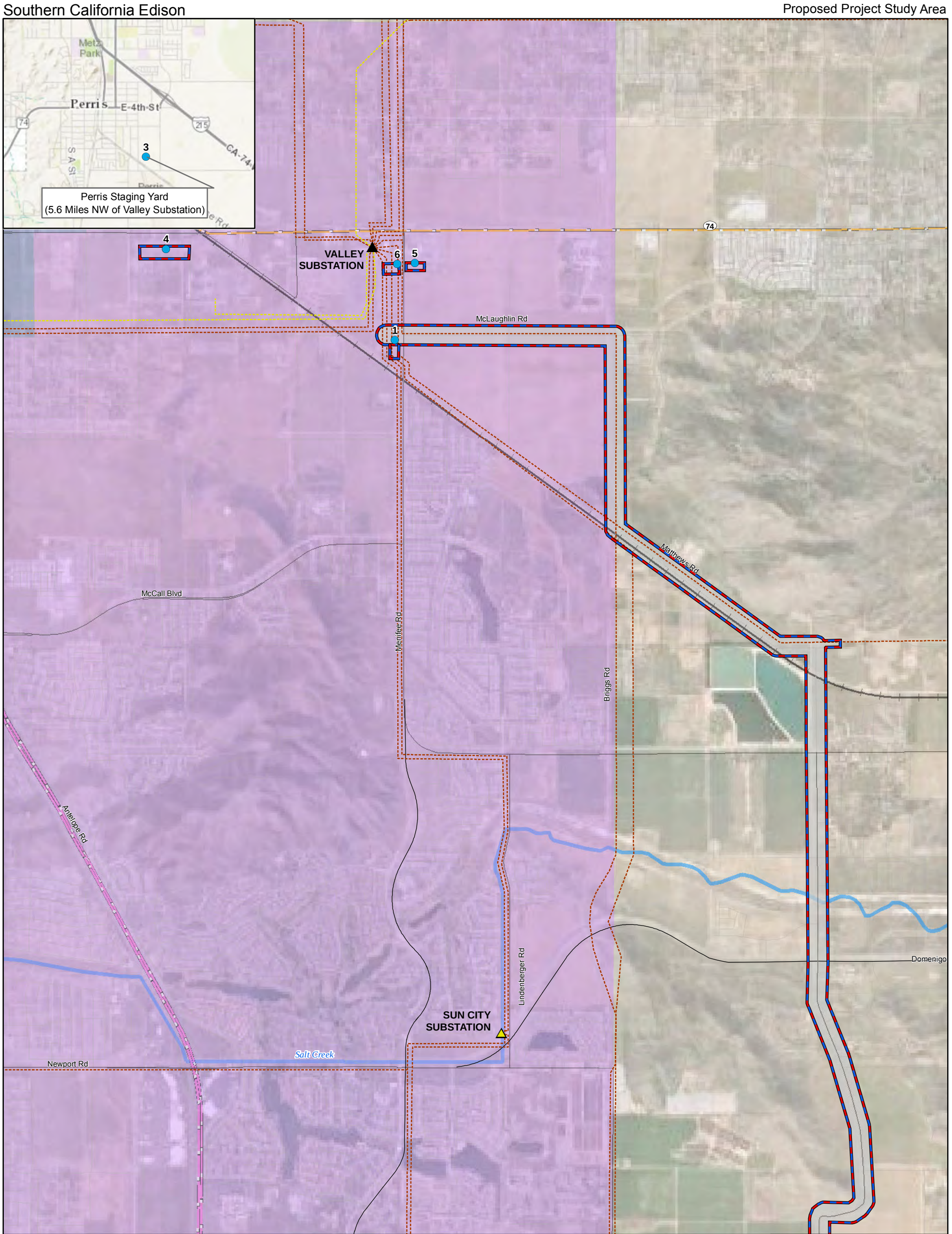


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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-2**

Southern California Edison

Proposed Project Study Area



Proposed Project
- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Areas

Alternative Project
- Alternative 115 kV Subtransmission Line Study Area

Potential Material Staging Yards
- Staging Yards 1-6

Existing Facilities
- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Sheet (1 of 3)

Sources: SCE, 2014;
Riverside County, 2014;
Aerial Image:
Google Earth, 2014

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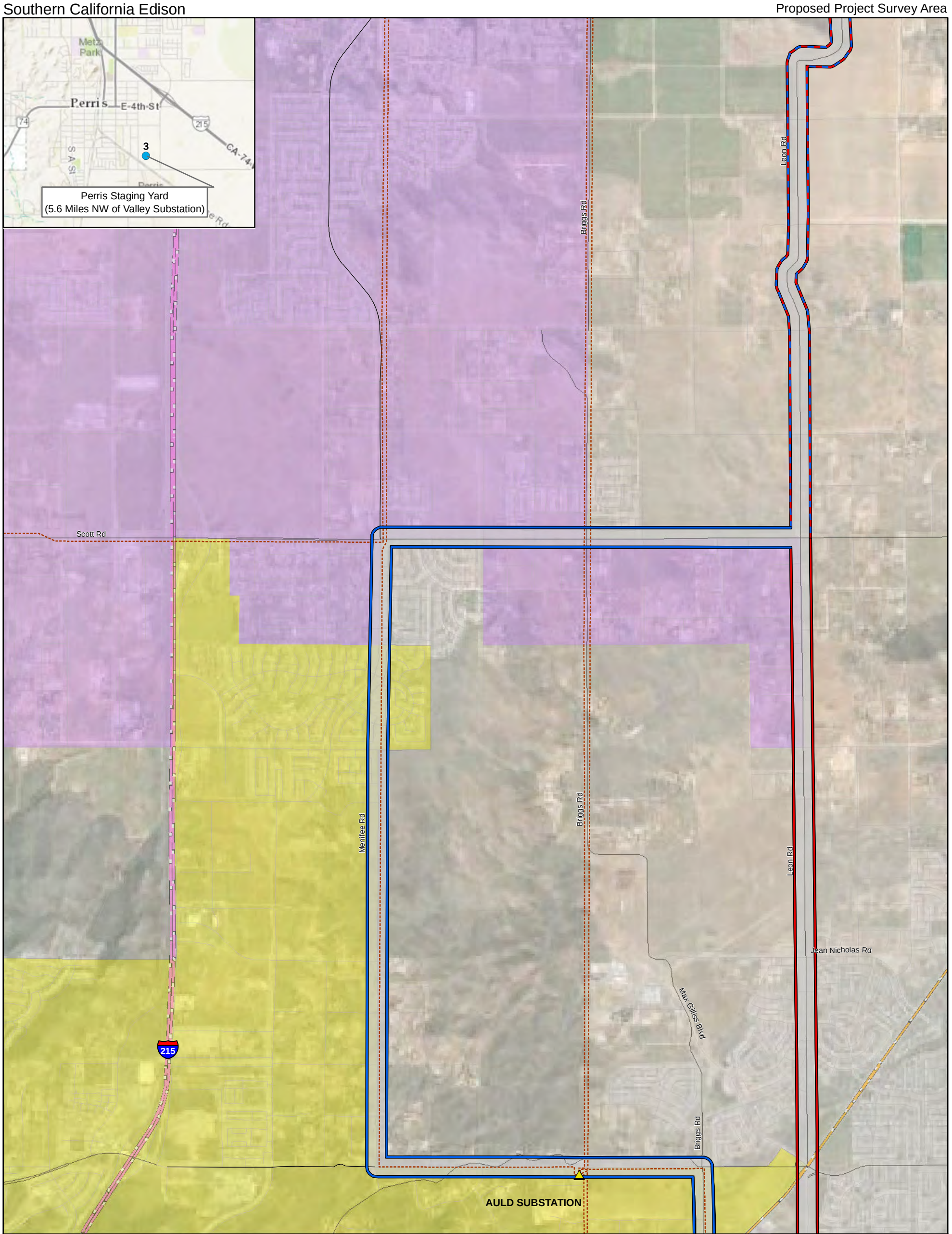


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-2

Southern California Edison

Proposed Project Survey Area



Proposed Project

- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Areas

Alternative Project

- Alternative 115 kV Subtransmission Line Study Area

Potential Material Staging Yards

- Staging Yards 1-6

Existing Facilities

- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Sheet (2 of 3)

Sources: SCE, 2014;
Riverside County, 2014;
Aerial Image:
Google Earth, 2014

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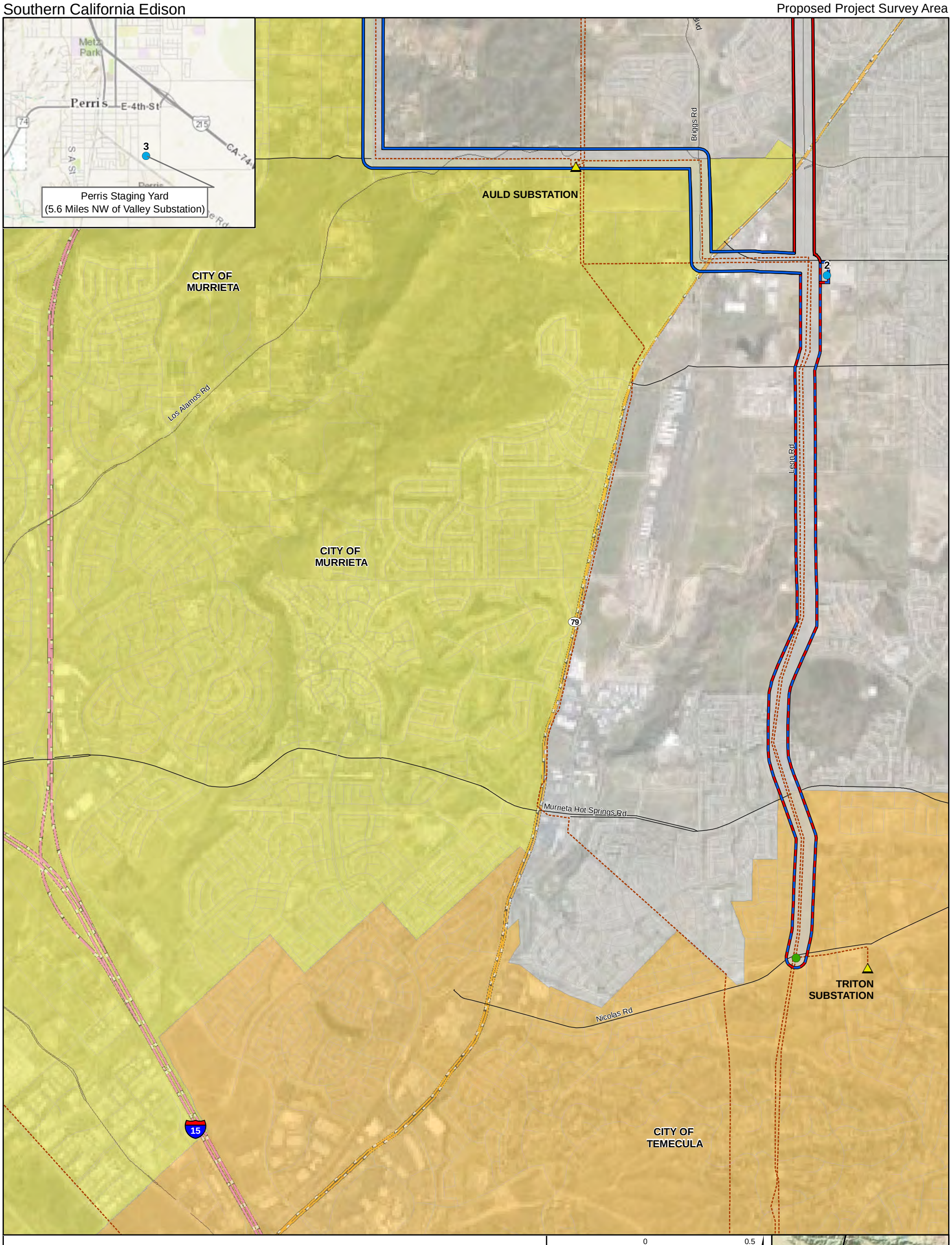
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-2**

Southern California Edison

Proposed Project Survey Area



Proposed Project

- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Areas

Alternative Project

- Alternative 115 kV Subtransmission Line Study Area

Potential Material Staging Yards

- Staging Yards 1-6

Existing Facilities

- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Sheet (3 of 3)

Sources: SCE, 2014;
Riverside County, 2014;
Aerial Image:
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In addition to these existing resources, SCE provided geographic information system (GIS) data files and reports for biological surveys conducted in support of SCE's Triton Substation Project (SCE, 2008) for areas that overlap (Leon Road from Auld Road South to Nicolas Road within Segment 2) the Proposed Project; resources within this area of overlap are discussed, as appropriate, within this document. These data include SCE's Environmental Assessment for the Triton Substation Project, protocol and preconstruction survey results for special status plant and animal species (SCE, 2008).

Special status species include all federal- and state-listed endangered and threatened species, candidates for listing, species proposed for listing, California Fully Protected Species, California Species of Special Concern (CSSC), federal Birds of Conservation Concern, migratory birds protected under the Migratory Bird Treaty Act (MBTA) and/or Bald and Golden Eagle Protection Act (BGEPA), species protected under the CNPS rare or endangered species, and special status species covered under the Western Riverside County Multiple Species Habitat Conservation Plan (WRCMSHCP) (Riverside County 2003). In addition, plants identified by the WRCMSHCP as Narrow Endemic Plant Species (NEPS) or Criteria Area Plant Species (CAPS) were included in the assessment.

USFWS Critical Habitat areas for federally listed species within 3 miles of the Proposed Project were reviewed using GIS shape files provided by USFWS.

A soils map for the Proposed Project was created from GIS data obtained from the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) online Soil Survey (NRCS, 2011). Soil maps are presented in Figure 4.4-3 Soil Types. Field aerial photograph maps at a scale of 1:2400 (1 inch = 200 feet) were created for the Proposed Project prior to field visits. These were supplemented with maps of known special status species points from CNDDB (2012 and 2014) records and vegetation community polygons mapped during 2012 assessment surveys.

Prior to vegetation mapping, biologists studied all USGS topographic quadrangle maps from a nine-quadrangle area surrounding the Proposed Project (i.e., Romoland, Winchester, Hemet, Murrieta, Bachelor Mountain, Sage, Temecula, Pechanga, and Vail Lake), aerial imagery, and vegetation maps from the WRCMSHCP to further assess habitat conditions for an array of species known or potentially present within or adjacent to the Proposed Project.

Prior to the jurisdictional waters delineation survey, 1:2400 color aerial photographs containing data from the USFWS National Wetland Inventory (USFWS, 2011a); USDA NRCS soil mapping data (NRCS, 2012); historic aerials (Google, 2012); and the USGS Bachelor Mountain, Murrieta, Romoland, and Winchester topographic maps were examined to determine the locations of potential areas of jurisdiction (USGS, 1973, 1979a, 1979b, and 1979c).

Based on literature review and desktop analysis, lists of known and potentially present special status plant and animal species were prepared on the basis of known geographic distribution and/or by the presence of habitat requirements (e.g., roosting, nesting, or foraging habitat; specific soil type; permanent water source) within the boundaries of the Proposed Project.

Field Surveys

Field surveys were conducted for Segment 1 of the Proposed Project by TRC and its subcontractors in 2012 and 2013, followed by surveys for Segment 2 of the Proposed Project conducted by AECOM and its subcontractors in 2013 and 2014.

The need for focused surveys for specific species or biological taxa was determined based on presence of suitable habitat, potential for occurrence, and requirements of the WRCMSHCP. Table 4.4-1 Biological Resource Surveys Conducted for the Proposed Project and Corresponding Survey Buffers provides a summary of surveys conducted for the Proposed Project by TRC, AECOM, and their subcontractors.

Table 4.4-1 Biological Resource Surveys Conducted for the Proposed Project and Corresponding Survey Buffers

Survey Type	Survey Area from Centerline[2]	Total Survey Area Width (Buffer)
Vegetation Mapping[1]	500	1,000 feet
Jurisdictional Delineation[1]	250	500 feet
Special Status Plant and Vernal Pool Plant Species	250	500 feet
Wet Season and Dry Season Fairy Shrimp 2013	250	500 feet
Wet Season[1] and Dry Season Fairy Shrimp 2013-2014	500	1,000 feet
Quino Checkerspot Butterfly Habitat Assessment[1]	250	500 feet
Amphibian and Reptile	500	1,000 feet
Nesting Raptors 2012	0.5 mile	1.0 mile
Nesting Raptors 2014	500	1,000 feet
Western Burrowing Owl	500	1,000 feet
Least Bell's Vireo	500	1,000 feet
Southwestern Willow Flycatcher	500	1,000 feet
Coastal California Gnatcatcher Habitat Assessment[1]	500	1,000 feet
Small Mammal	250	500 feet

Notes:

[1] Surveys for Segment 2 of the Proposed Project included properties that were inaccessible after April 16th, 2014. No inaccessible properties were identified in Segment 1 of the Proposed Project.

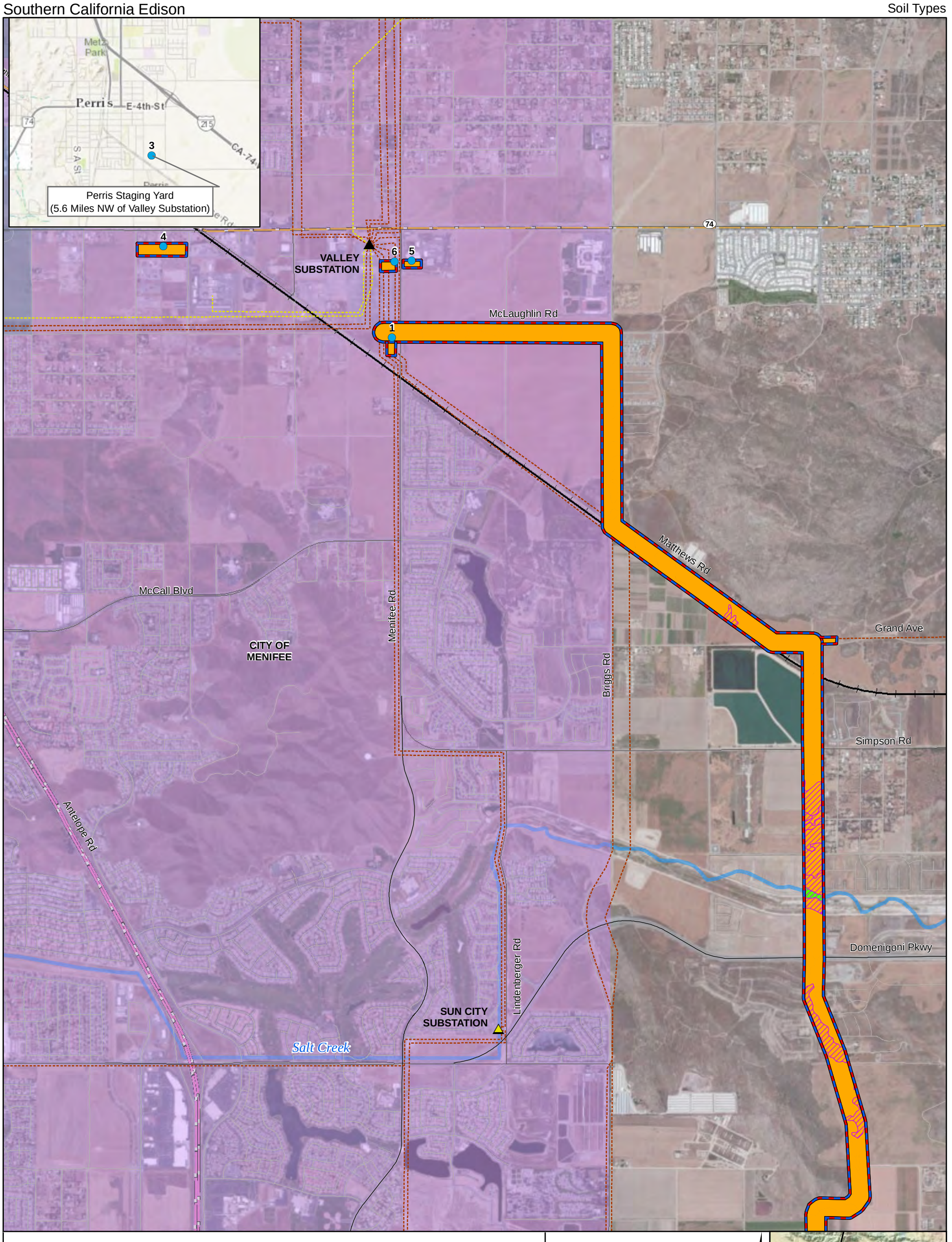
[2] Centerline refers to estimated center of Proposed Project Route.

Vegetation mapping and surveys for vernal pool branchiopods and special status avian resources included western burrowing owl (*Athene cunicularia hypogea*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and southwestern willow flycatcher (*Empidonax traillii extimus*). A 1,000-foot buffer (Survey Area) was used per existing survey protocols or as a typical approach to adequately consider indirect impacts.

Habitat was assessed within a 500-foot buffer (Study Area) for jurisdictional resources and less-mobile special status species, including special status plants and vernal pool plants, small mammals (Los Angeles pocket mouse [*Perognathus longimembris brevinasus*] and Stephens' kangaroo rat [*Dipodomys stephensi*]), amphibians (arroyo toad [*Anaxyrus californicus*]), and invertebrates (Quino checkerspot butterfly [*Euphydryas editha quino*]).

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-3**

Southern California Edison Soil Types



Proposed Project
- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Areas

Alternative Project
- Alternative 115 kV Subtransmission Line Study Area

Potential Material Staging Yards
- Staging Yards 1-6

Existing Facilities
- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Soil Types
- Loamy, Sandy, Rocky Soils
- Clay
- Saline-Alkali

Sheet (1 of 3)

Sources:
SCE, 2014;
Riverside County, 2014;
TRC 2013;
AECOM 2014
Esri 2014

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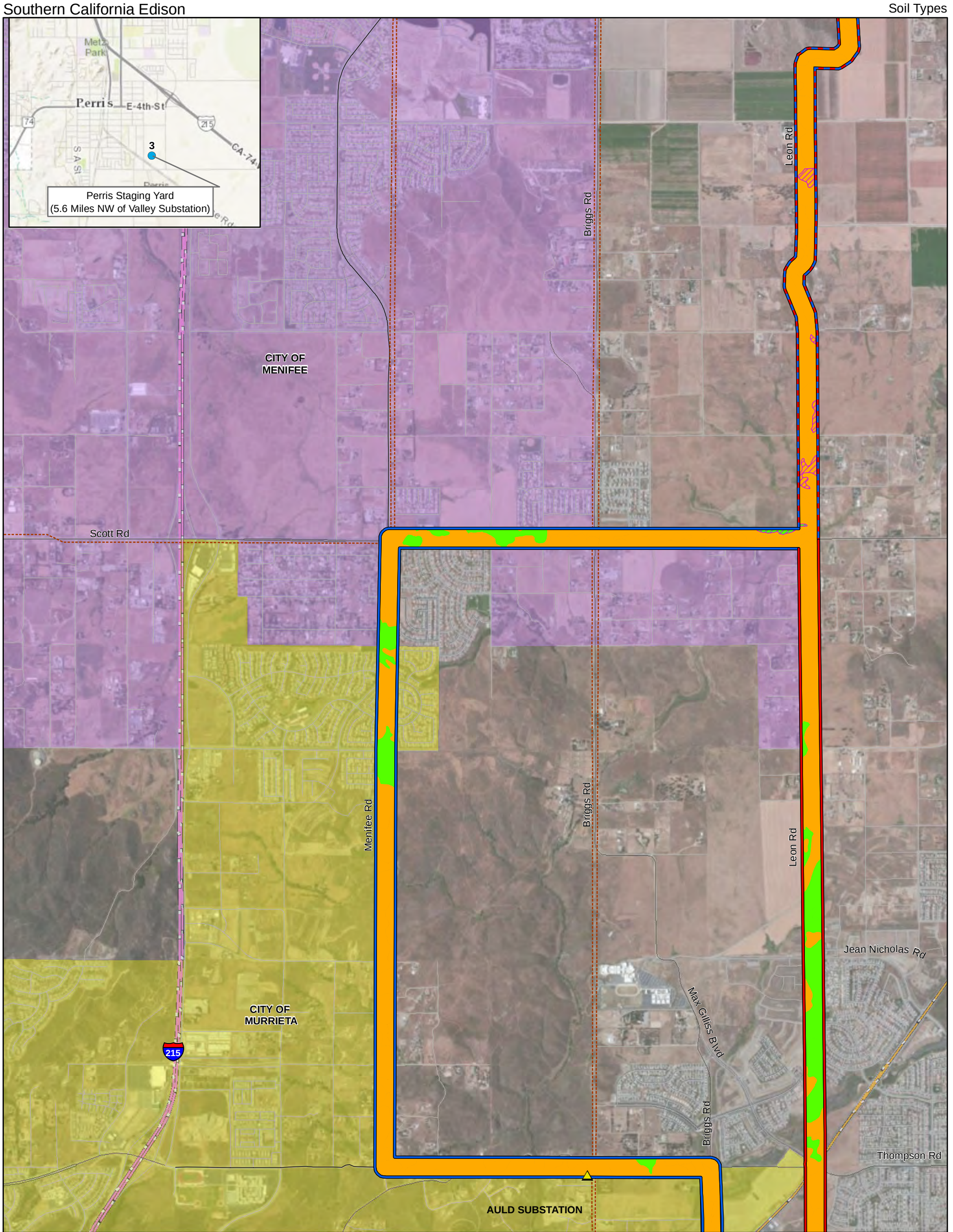
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-3**

Southern California Edison Soil Types



Proposed Project
- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Areas

Alternative Project
- Alternative 115 kV Subtransmission Line Study Area

Potential Material Staging Yards
- Staging Yards 1-6

Existing Facilities
- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Soil Types
- Loamy, Sandy, Rocky Soils
- Clay
- Saline-Alkali

Sheet (2 of 3)

Sources:
SCE, 2014;
Riverside County, 2014;
TRC 2013;
AECOM 2014
Esri 2014

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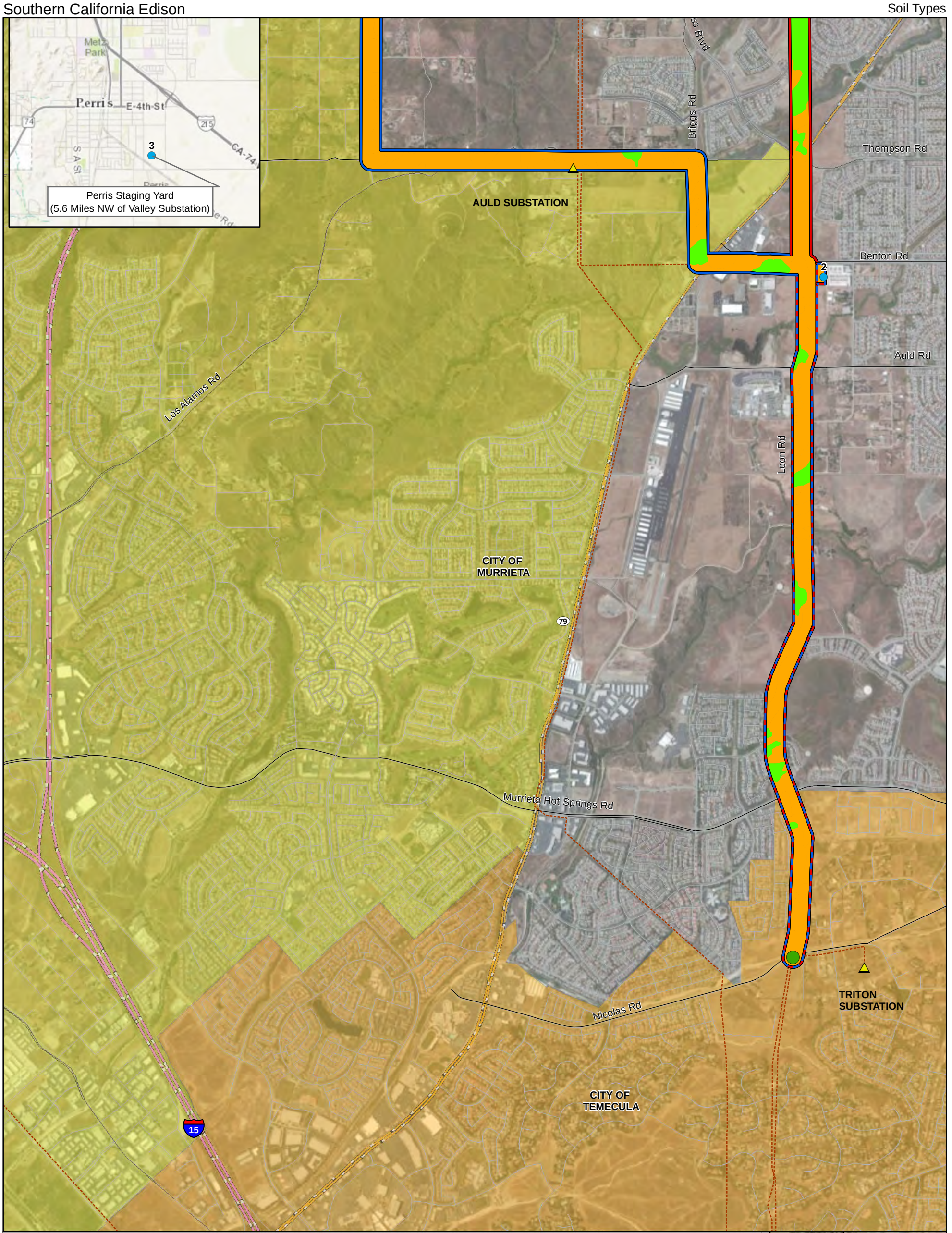
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-3**

Southern California Edison Soil Types



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Vegetation mapping was completed according to Holland (1986), with modifications by Oberbauer et al. (2008). Additional structural/compositional vegetation subtype categories were mapped to provide the basis for habitat assessments and to guide various focused survey efforts. Where correspondence between the component plant species of an area and standard vegetation categories was low (i.e., did not meet the definition of a standard vegetation type), the polygon was mapped based on functional processes (e.g., presence of surface water, slope aspect) rather than floristics. Biologists mapped vegetation and other land cover types for the Proposed Project on high-resolution, 1:2400-scale aerial photographs. TRC performed vegetation mapping for Segment 1 of the Proposed Project in April 2012. AECOM completed vegetation mapping for Segment 2 of the Proposed Project in December 2013.

Biologists evaluated and mapped all potential wetland and jurisdictional water features within the Proposed Project to identify any hydrologic, vegetation, and geomorphic indicators of potential jurisdictional waters and wetland features, which were delineated according to the technical guidelines provided in the 1987 Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Arid West Supplement (Environmental Laboratory, 2008) to identify and delineate wetlands that may be subject to regulatory jurisdiction under Section 404 of the Clean Water Act (CWA). Wetlands were identified by the "three-factor" approach, in which criteria for wetland hydrology, hydrophytic vegetation, and hydric soils must all be met to conclude that an area is a wetland.

Visible limits of wetland/water features were mapped on 1:2400-scale color aerial photographs and/or recorded with a Trimble Global Positioning System hand-held unit. Field mapping was supplemented with standard data forms and notes documenting the characteristics of the features. Field data were digitized using GIS to determine acreages. TRC completed Segment 1 of the Proposed Project jurisdictional waters evaluation in April 2012. AECOM completed field surveys for Segment 2 of the Proposed Project jurisdictional waters delineation in December 2013. Greater detail of the jurisdictional waters survey and findings for the Proposed Project can be found in Appendix F BRA Segment 1 and Segment 2.

Field surveys for special status plants were conducted in accordance with CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG, 2009) and the CNPS Botanical Survey Guidelines (CNPS, 2011). The plant nomenclature used follows The Jepson Manual: Higher Plants of California (Hickman, 1993) or more recently published taxonomic revisions of genera. TRC performed the special status plant surveys for Segment 1 of the Proposed Project in 2012 and 2013, and AECOM conducted surveys for Segment 2 of the Proposed Project from March through June 2014. The timing for rare plant surveys was supplemented by field assessments of known reference locations of special status plants within Segment 1 of the Proposed Project (provided within the BRA prepared for Segment 1 of the Proposed Project [TRC, 2013]). The phenology of target plant species was assessed to confirm optimal survey times for detection within Segment 2 of the Proposed Project.

Field surveys for special status wildlife were performed for the Proposed Project. Amphibians and reptile surveys were conducted for Segment 1 of the Proposed Project by Natural Resource Assessment (NRA) of Riverside in 2012. Amphibian and reptile surveys were conducted for

Segment 2 of the Proposed Project by AECOM concurrently with all other biological surveys from December 2013 through June 2014.

Surveys for nesting raptors within 0.5 of a mile of Segment 1 of the Proposed Project were conducted by Bloom Biological Inc. (BBI) of Santa Ana in 2012 and within 500 feet of Segment 2 of the Proposed Project by AECOM biologists in May 2014.

Western burrowing owl surveys following the WRCMSHCP western burrowing owl survey instructions were conducted for Segment 1 of the Proposed Project by TRC in 2012, and in Segment 2 of the Proposed Project by AECOM from February to June 2014.

Protocol surveys were conducted in riparian areas for the federally endangered least Bell's vireo and federally endangered southwestern willow flycatcher in Segment 1 of the Proposed Project by BBI in 2012, and in Segment 2 of the Proposed Project by AECOM from April through July 2014. The standard USFWS (2001) breeding-season protocols for both species (Sogge et al. 2010) were followed.

A USFWS breeding-season protocol survey for the threatened coastal California gnatcatcher was conducted by BBI in Segment 1 of the Proposed Project in 2012. For Segment 2 of the Proposed Project, protocol surveys were not conducted because the WRCMSHCP considers this species "adequately conserved." However, suitable habitat for this species in Segment 2 of the Proposed Project was mapped by AECOM in 2013.

Special status small mammal trapping efforts followed the official trapping protocol established for the federally endangered Stephens' kangaroo rat. Trapping surveys for special status small mammals for Segment 1 of the Proposed Project were conducted by NRA in May and June 2012. Trapping surveys for Segment 2 of the Proposed Project were conducted by SJM Biological Consultants in May 2014.

Protocol wet and dry season surveys for the federally endangered Riverside fairy shrimp (*Streptocephalus woottoni*), federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*), and for the federally endangered Quino checkerspot (*Euphydryas editha quino*) were conducted for Segment 1 of the Proposed Project by Cardno TEC in January 2013. For Segment 2, protocol wet and dry season surveys for both species of fairy shrimp were conducted from December 2013 through May 2014 by AECOM biologists. Habitat was assessed within a 250-foot-radius buffer for Quino checkerspot butterfly for segment 2 of the Proposed Project in 2014.

4.4.1.1 General Biological Resources

The Proposed Project is located within a Mediterranean climate region characterized by warm, dry summers and mild, wet winters. Since the Proposed Project is on the east-side rain shadow of the coastal mountains at relatively low elevations (from 1,300 to 2,600 feet above sea level), arid conditions are evident in the vegetation. In summer, day temperatures often reach or exceed 100 degrees Fahrenheit (°F) and overnight winter temperatures can drop to below freezing. Average annual daytime temperature ranges for the area are fairly moderate, ranging from 50°F to 80°F. Average total precipitation for the area is approximately 10 to 12 inches per year (Western

Regional Climate Center, 2012). Rainfall typically occurs during the winter months, November through February, and consists of large storm events providing the bulk of the precipitation.

The Proposed Project occurs within a predominantly rural and natural landscape comprising the interior valleys, rolling hills, and rugged peaks between the Santa Ana Mountain range and San Jacinto Mountain range of western Riverside County. The Proposed Project primarily follows existing roadways that pass through relatively gradual terrain of the Perris, Domenigoni, Paloma, French, and Auld Valleys, as well as portions of the northeast Sedco Hills. There are several creeks that drain the area. The northern portion of Segment 1 of the Proposed Project is drained by Salt Creek and the southern portion of Segment 1 of the Proposed Project is drained by Warms Springs Creek. Segment 2 of the Proposed Project is drained by an unnamed creek in the northern section, Tucalota Creek in the central portion, and Santa Gertrudis Creek in the south section. Portions of these creeks support riparian scrub and wetland habitats, and drainages and basins support willow-dominated riparian growth and/or freshwater marsh. These habitats are associated with riparian-dependent plant and wildlife species. Xeric scrub vegetation dominates the steeper terrain, and the valley bottoms support mostly herbaceous types, especially grasslands. Much of the steep terrain is extremely rocky, with many large, granitic outcrops.

Historical land uses in this area have consisted primarily of extensive agricultural conversion of the valley bottoms to dry grain and irrigated crops, as well as livestock grazing. Human dwellings are sparse and widely separated, and are typically associated with nonnative tree and shrub plantings. Although relatively steep terrain within the Proposed Project supports a high percentage of native scrub vegetation, much of it shows evidence of past disturbance, such as through grazing or fire. The topography and vegetation of almost all drainages bear some evidence of past disturbance from crop cultivation, vegetation removal, channelization, or grazing. Much of the current riparian vegetation appears to be reestablished growth following earlier disturbance. Vegetation on several drainages adjacent to recent suburban development has been actively enhanced or restored.

Human-caused modifications to the landscape include artificial water reservoirs and large tracts of nonnative trees. Dense suburban and commercial development with associated landscaping and water control features constitutes the most recent addition to the landscape. Dense development accounts for approximately one-quarter of the area mapped within the Proposed Project Study Area 500-foot buffer. These developments occur as discrete areas within the matrix of rural or undeveloped lands.

4.4.1.2 Vegetation Communities

The Proposed Project Study Area occurs within the South Coast subregion of the Southwestern California region of the California Floristic Province. The South Coast subregion extends along the Pacific coast from Point Conception southward into Mexico. Thirteen vegetation communities, subtypes, and other land cover types were documented and mapped within the Proposed Project Study Area (Table 4.4-2 Vegetation and Land Cover Types within a 500-Foot Buffer of the Proposed Project); Vegetation types within the Proposed Project Study Area are depicted in Figure 4.4-4 Vegetation and Other Land Cover Types. A crosswalk between Holland and Oberbauer vegetation types and general vegetation classification scheme by Sawyer et al.

(2009) is provided in Table 4.4-2 Vegetation and Land Cover Types within a 500-Foot Buffer of the Proposed Project.

Table 4.4-2 Vegetation and Land Cover Types within a 500-Foot Buffer of the Proposed Project

Holland 1986	Sawyer et al. 2009	Sensitive Vegetation Community	Segment 1 of the Proposed Project 500-Foot Buffer and Material Staging Yards (Acres)	Segment 2 of the Proposed Project 500-Foot Buffer (Acres)	Total for the Proposed Project (Acres)[3]
Riparian Habitats					
Open water (64140)[1]	No counterpart	Yes	3.82	0.10	3.92
Non-Vegetated Channel (64200)	No counterpart	Yes	0	0.40	0.40
Disturbed Wetland (11200)	*Bolboschoenus maritimus* herbaceous alliance	Yes	4.11	0	4.11
Freshwater Marsh (52400)	*Typha*/*Schoenoplectus* herbaceous alliances	Yes	3.18	0	3.18
Mulefat Scrub (63310)	*Baccharis salicifolia* shrubland alliance	Yes	4.02	0.26	4.28
Tamarisk Scrub (63810)	*Tamarix* spp. semi-natural shrubland stands	N/A	0	0.17	0.17
Southern Willow Scrub (63320)	*Baccharis salicifolia* shrubland alliance	Yes	0.22	1.56	1.77
Southern Cottonwood - Willow Riparian Forest (61330)	*Populus fremontii* forest alliance	Yes	1.11	0	1.11
Upland Habitats					
Nonnative Grassland (42200)	*Bromus* - *Brachypodium distachyon* semi-natural stands and *Avena* semi-natural herbaceous stands	N/A	60.35	34.67	95.02

Holland 1986	Sawyer et al. 2009	Sensitive Vegetation Community	Segment 1 of the Proposed Project 500-Foot Buffer and Material Staging Yards (Acres)	Segment 2 of the Proposed Project 500-Foot Buffer (Acres)	Total for the Proposed Project (Acres)[3]
Disturbed/Ruderal Habitat (11300)	*Bromus* - *Brachypodium distachyon* semi-natural stands	N/A	2.39	67.58	69.67
Diegan Coastal Sage Scrub (32500)	*Artemisia californica-Eriogonum fasciculatum* Shrubland Alliance *Artemisia californica-Salvia mellifera* Shrubland Alliance	Yes	30.08	41.19	71.27
Nonnative Woodland/Ornamental (79000)	*Eucalyptus* Semi-Natural Woodland Stands[2] *Schinus* Semi-Natural Woodland Stand[2]	N/A	38.49	6.00	44.49
Land Cover Types					
Urban / Developed (12000)	No counterpart	N/A	157.41	58.03	215.44
Agriculture (18000)[1]	No counterpart	N/A	260.83	0	260.83
Total			**741.32**	**209.96**	**951.28**

Notes:

[1] Vegetation types not addressed in Holland 1986, so classified according to Oberbauer et al. 2008.

[2] Due to species composition, not resolvable to vegetation alliance level under this system.

[3] Acreage calculations to the 100th decimal place are for estimation purposes only.

Open Water

Open water is included in the anthropogenic communities because it is only associated with human development in the form of treatment ponds, agricultural settling ponds, or flood control facilities. Open water habitat consists of large areas or small ponds with standing water that are primarily unvegetated but may support a few water-loving species such as pondweed (*Potamogeton* sp.) and filamentous algae. In areas with natural banks, the perimeter of open

water habitat may be vegetated with wetland or riparian plant species. Approximately 3.92 acres of open water is located within the Proposed Project Study Area.

Nonvegetated Channel

A total of 0.40 of an acre of nonvegetated channel occurs within Santa Gertrudis Creek, which traverses Segment 2 of the Proposed Project Study Area.

Disturbed Wetland

Disturbed wetlands are characterized by emergent monocots and forbs that are subject to a wide array of anthropogenic disturbance. Salt Creek, located north of and paralleled by Domenigoni Parkway, is a natural drainage that has been widely channelized for flood control. It now supports low, disturbed wetland vegetation that experiences seasonal drying and livestock grazing. Dominant vegetation includes brass buttons (*Cotula coronopifolia*), various flat sedges (*Cyperus* sp.), cattails, bulrush, salt grass, and alkali heliotrope (*Heliotropium curassavicum*). Approximately 4.11 acres of disturbed wetland habitat is present within the Proposed Project Study Area.

Freshwater Marsh

Freshwater marsh is dominated by perennial, emergent monocots and occurs in areas of persistent, but not necessarily perennial, surface water. The structural dominants in lowland inter-mountain western Riverside County marshes are bulrush (*Scirpus* spp.) and cattail (*Typha* spp.), which often form dense stands almost 10 feet tall. Many smaller native and nonnative species such as spike rush (*Eleocharis* spp.), rush (*Juncus* spp.), sedge (*Cyperus* spp.), curly dock (*Rumex crispus*), salt grass (*Distichlis spicata*), and rabbit foot grass (*Polypogon monspeliensis*) also occur. These marshes also often include a few small, scattered individuals of woody species such as salt cedar, mulefat, and willow (*Salix* spp.). Freshwater marsh habitat is scattered throughout the Proposed Project Study Area along natural and channelized drainages and in natural and artificial stormwater retention basins, where this vegetation type establishes shortly after disturbance. A marsh area occurs on the natural drainage basin near the southern end of the Proposed Project Study Area, which follows Leon Road. Approximately 3.18 acres of freshwater marsh habitat is present within the Proposed Project Study Area.

Mulefat Scrub

Mulefat scrub (*Baccharis salicifolia*), is composed of moderate to tall (13 feet or less) shrubs in disturbance-prone areas of washes and floodplains, along lower-order drainages with less-persistent water flow, and other non-riparian areas along road edges. It is often closely mixed with marsh growth and often occurs on the relatively dry peripheries of riparian forest stands. Mulefat is typically dominant, with minor components of seasonal herbaceous plants; various willow species; or other low-growing, native woody plants. Approximately 4.28 acres of mulefat scrub is located within the Proposed Project Study Area.

Tamarisk Scrub

This community is dominated by tamarisk (*Tamarix ramosissima*), with the occasional mulefat and red willow. A total of 0.17 of an acre of tamarisk scrub occurs along the banks of Tucalota Creek within the Proposed Project Study Area.

Southern Willow Scrub

Southern willow scrub is often closely mixed with marsh growth and generally occurs on the relatively dry peripheries of riparian forest stands. This vegetation type is dominated by arroyo and/or red willow (*S. laevigata*) species, as well as lower-growing co-dominant species such as mulefat (*Baccharis salicifolia*), Mexican elderberry (*Sambucus mexicanus*), sandbar willow (*Salix exigua*), black willow (*S. gooddingii*), and nonnative salt cedar (*Tamarix* spp.). Small pockets of southern cattail occasionally occur in the understory. This community occurs along the drainages that traverse the Proposed Project Study Area. Approximately 1.77 acres of southern willow scrub is located within the Proposed Project Study Area.

Southern Cottonwood-Willow Riparian Forest

Several willow-dominated stands support varying proportions of Fremont cottonwood (*Populus fremontii*), the presence of which generally correlates with taller structure and greater stand maturity and longevity. There is 1.11 acres of this vegetation within the southwestern portion of the Proposed Project Study Area.

Nonnative Grassland

The distinction between ruderal and nonnative grassland vegetation is based on a subjective threshold of proportion of grass species versus nongrass species. These types apparently share a common origin in disturbance, combined with invasion by nonnatives. Nonnative grassland may be more typically associated with livestock grazing, and ruderal may correspond more with former soil disturbance. Nonnative grassland within the Proposed Project Study Area is dominated by a mixture of nonnative species such as wild oat and various bromes (*Bromus mollis*, *B. tectorum*, and *B. rubens*). Approximately 95.02 acres of nonnative grassland occurs widely throughout the Proposed Project Study Area on valley bottoms and gradual slopes.

Disturbed/Ruderal

Disturbed/ruderal habitat is defined as consisting predominantly of nonnative, short-lived annual plants adapted to colonizing disturbed areas. Species vary depending on the location and level of disturbance, but are dominated by herbaceous annuals and grasses. Species include mustards (*Brassica* spp.), radish (*Raphanus sativus*), wild oat (*Avena* spp.), ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), Australian saltbush (*Atriplex semibaccata*), tocalote (*Centaureamelitensis*), fennel (*Foeniculum vulgare*), telegraph weed (*Heterotheca grandiflora*), castor bean (*Ricinus communis*), pineapple-weed (*Chamomilla suaveloens*), sowthistle (*Sonchus oleraceus*), horseweed (*Conyza canadensis*), Russian thistle (*Salsola tragus*), tree tobacco (*Nicotiana glauca*), bristly ox-tongue *(Lactuca serriola*), tarweeds (*Deinandra* sp.), and goosefoot (*Chenopodium* spp.). Ornamental species may also colonize and

proliferate in disturbed/ruderal communities. Approximately 69.67 acres of disturbed/ruderal vegetation is distributed widely throughout the Proposed Project Study Area, occurring on field edges, road margins, untended agricultural fields, and other areas previously mechanically disturbed, such as abandoned graded construction pads.

Diegan Coastal Sage Scrub

Diegan coastal sage scrub is an association of relatively low-stature, woody or semi-woody shrubs, and subshrubs averaging less than 6 feet in height. The areas of Diegan coastal sage scrub are fairly open and dominated by low-growing semi-woody shrubs such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* var. *foliolosum*), and black sage (*Salvia mellifera*). Common associates include deerweed (*Acmispon glaber*), white sage (*Salvia apiana*), and littoral prickly-pear (*Opuntia littoralis*). The inland form also includes a higher proportion of taller, woody species such as white sage and bush penstemon (*Keckiella antirrhinoides*), resulting in a taller, denser structure. These vegetation subtypes occur on lower elevation, more exposed, and highly drained slopes relative to other shrub types, typically existing under the harshest conditions in the landscape. Most of the Diegan coastal sage scrub is uniformly dominated by buckwheat (*Eriogonum fasciculatum*). California sagebrush occurs in varying proportions but is rarely equal to buckwheat in dominance. Brittle bush (*Encelia farinosa*), which is an indicator of desert transition conditions, is very infrequent, suggesting coastal affinities of the vegetation. Cacti such as cholla (*Cylindropuntia californica*) and littoral prickly pear occur sporadically. Diegan coastal sage scrub covers 71.27 acres of the Proposed Project Study Area, mainly along hill slopes with large granitic outcrops.

Nonnative Woodland/Ornamental

The nonnative woodland/ornamental areas consist of nonnative shrub and tree species, including common oleander (*Nerium oleander*) and several species of eucalyptus, including silver dollar gum eucalyptus (*Eucalyptus polyanthemos*) and blue gum *(E. globulus*). Eucalyptus stands often provide nesting habitat for birds of prey and were mapped as an independent vegetation type within the nonnative woodland/ornamental community. There is also an area in the southern portion of the Proposed Project Study Area that includes plantings of the native shrub toyon (*Heteromeles arbutifolia*). A total of 44.49 acres of nonnative woodland/ornamental occurs in the southern portion of the Proposed Project Study Area.

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

Urban / Developed

Sheet (1 of 22)

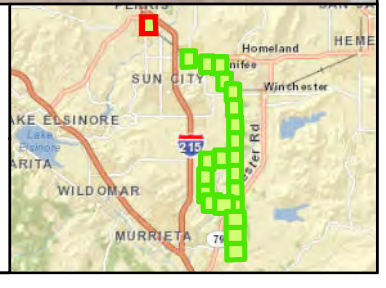
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TRC 2013
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-4**

Southern California Edison

Vegetation and Other Land Cover Types



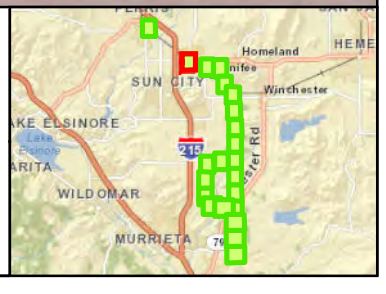
Vegetation Communities
- Urban / Developed
- Disturbed / Ruderal

Sheet (2 of 22)

Sources: SCE, 2014; USFWS 2014; Riverside County, 2014; TRC 2013
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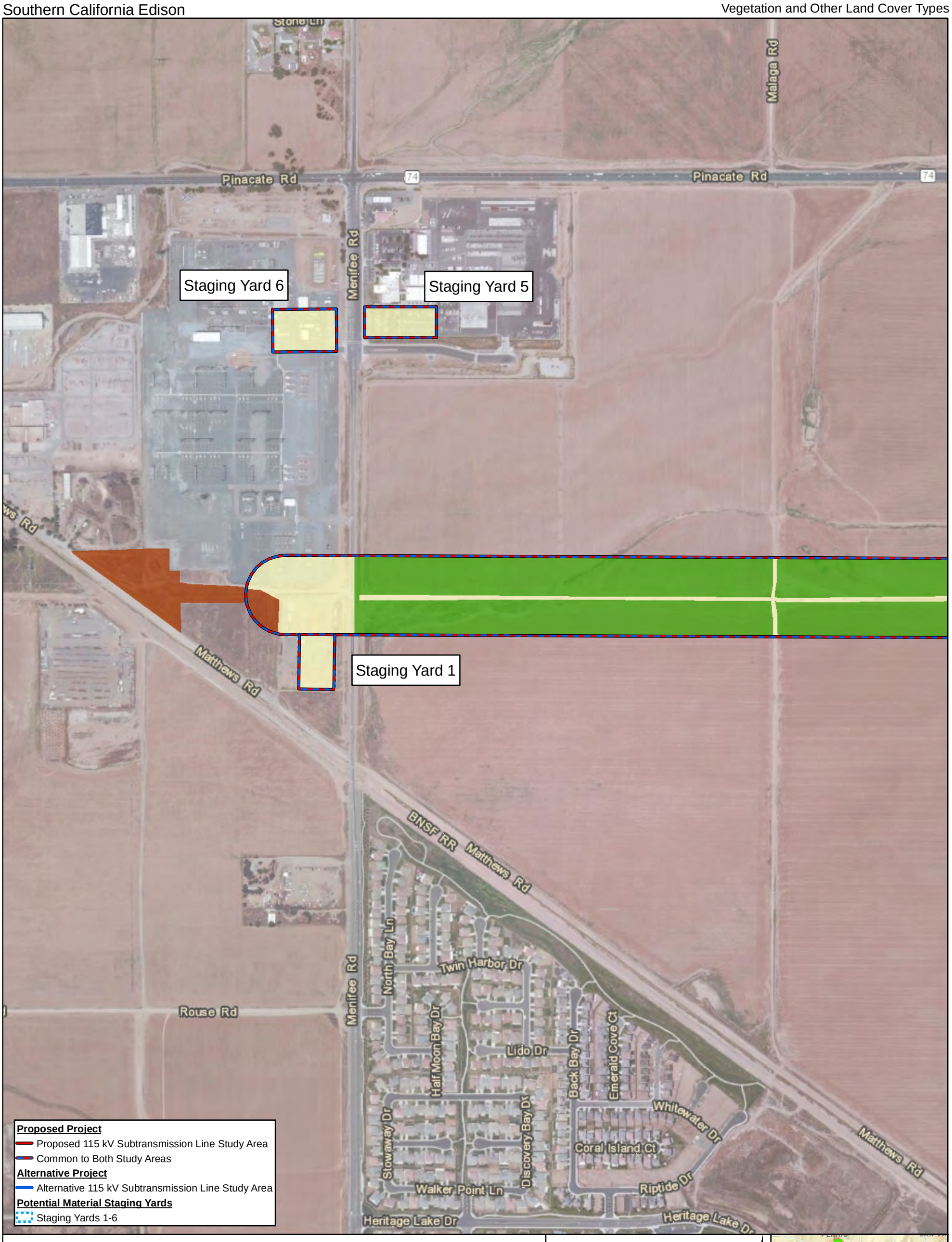
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Agriculture
- Urban / Developed
- Disturbed / Ruderal

Sheet (3 of 22)

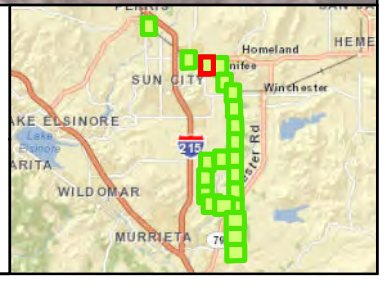
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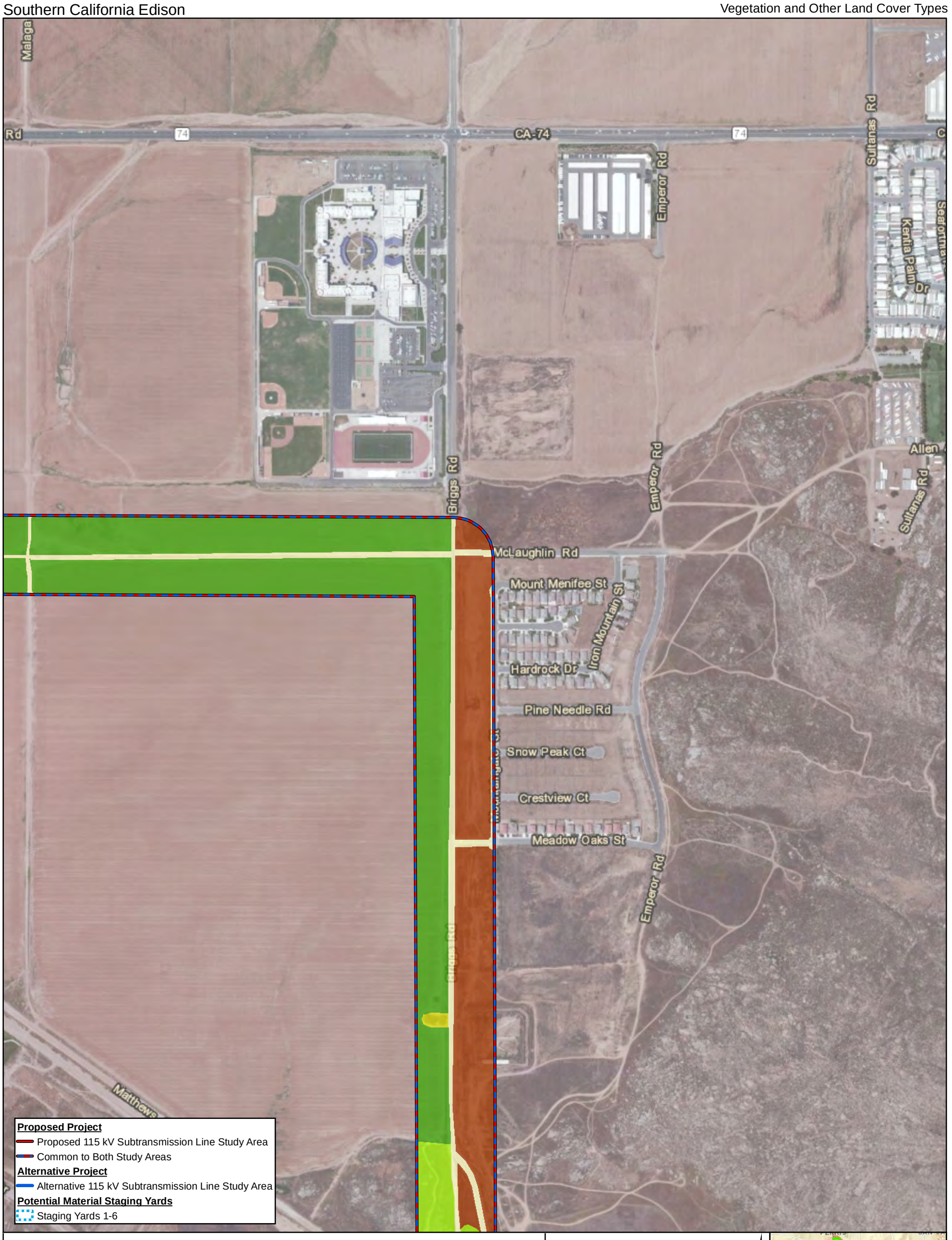


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Agriculture
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Nonnative Woodland / Ornamental

Sheet (4 of 22)

Sources: SCE, 2014;
USFWS 2014;
Riverside County, 2014;
TRC 2013
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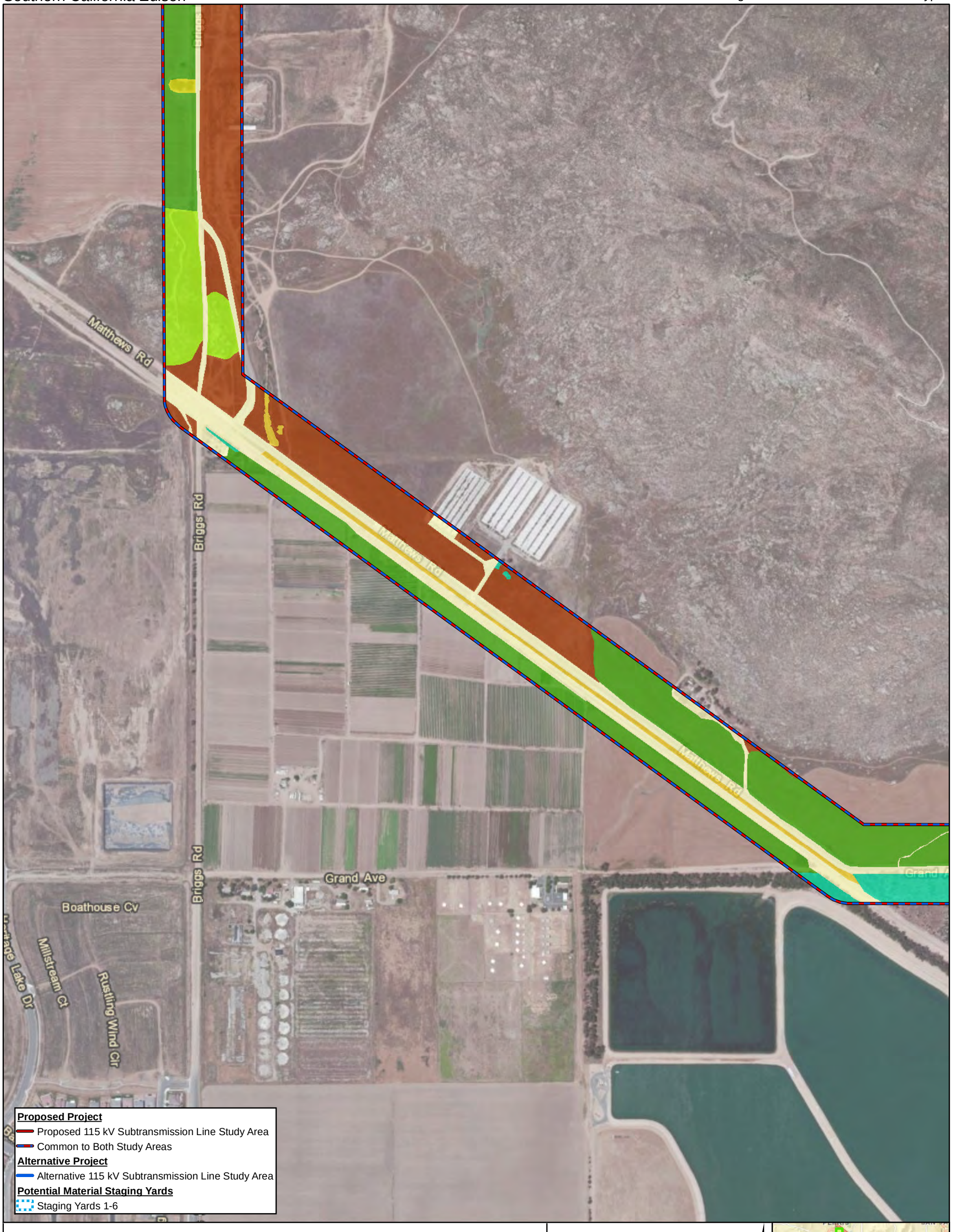


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Agriculture
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Eucalyptus
- Mulefat Scrub
- Nonnative Woodland / Ornamental

Sheet (5 of 22)

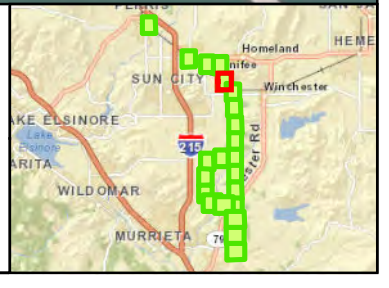
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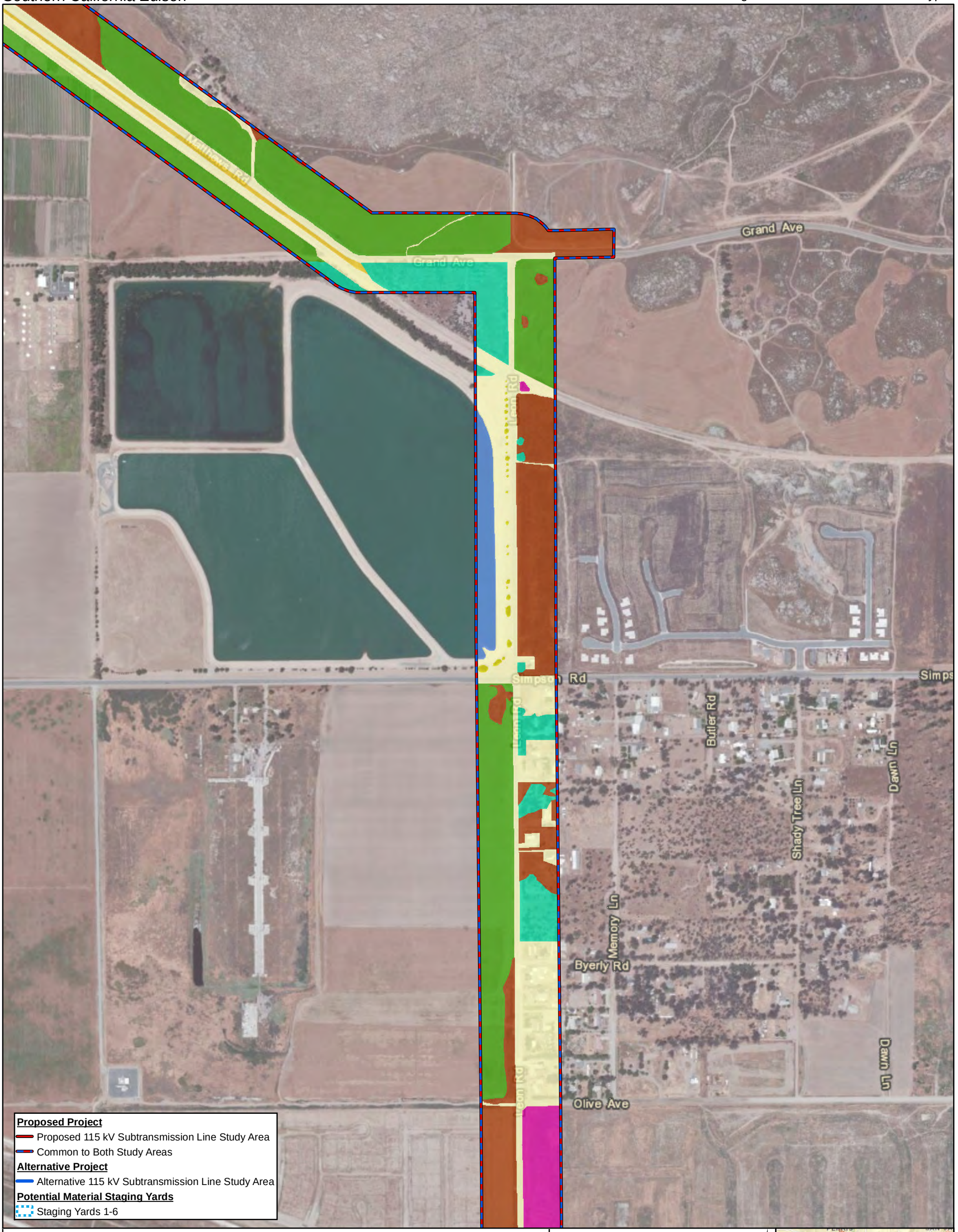


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

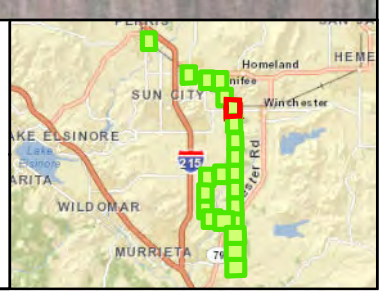
- Agriculture
- Urban / Developed
- Disturbed / Ruderal
- Eucalyptus
- Mulefat Scrub
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- Open Water

Sheet (6 of 22)

Sources: SCE, 2014;
USFWS 2014;
Riverside County, 2014;
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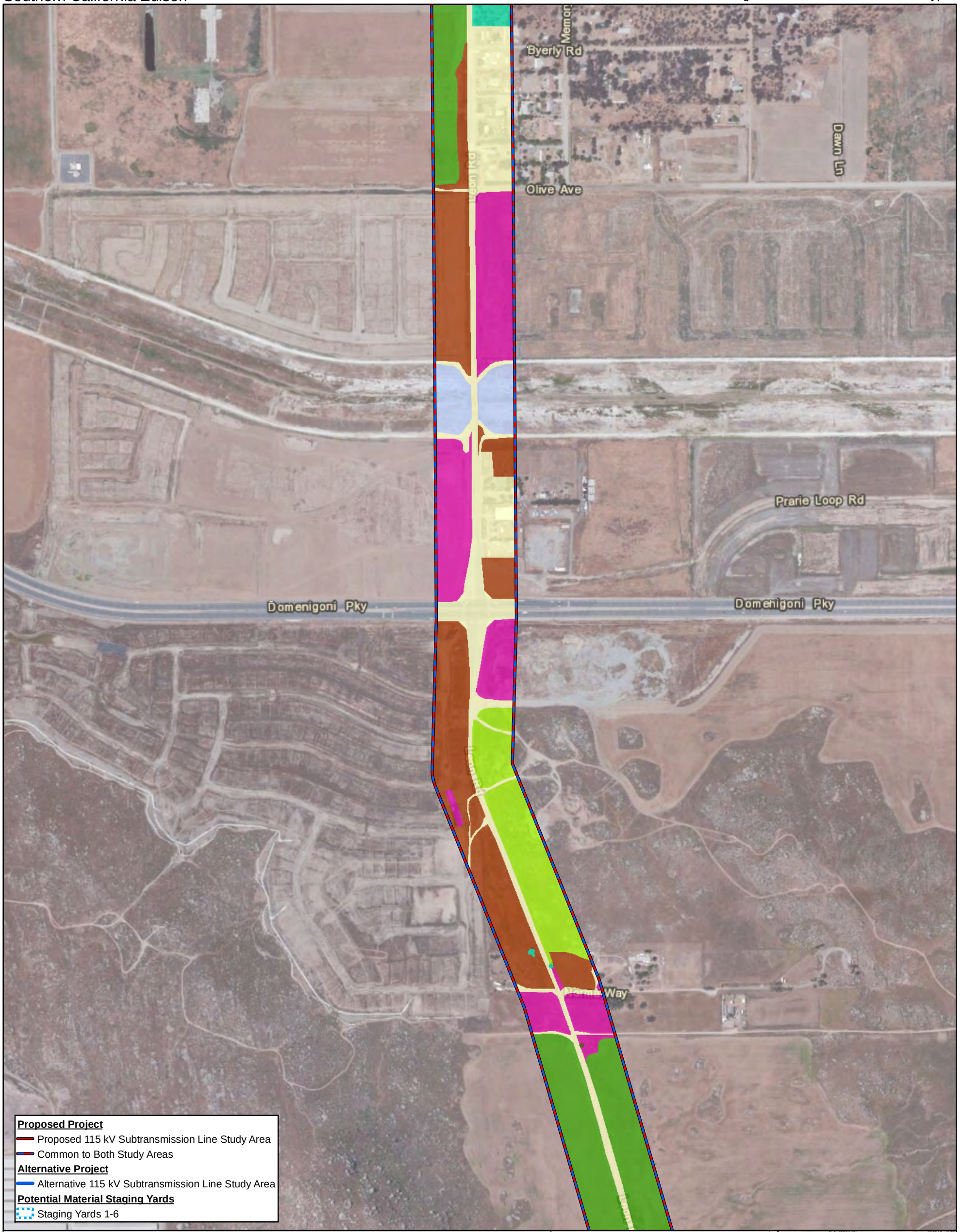
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Agriculture
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed Wetland
- Disturbed / Ruderal
- Eucalyptus
- Nonnative Grassland
- S. Cottonwood - Willow Riparian Forest

Sheet (7 of 22)

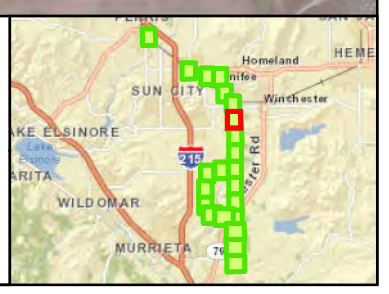
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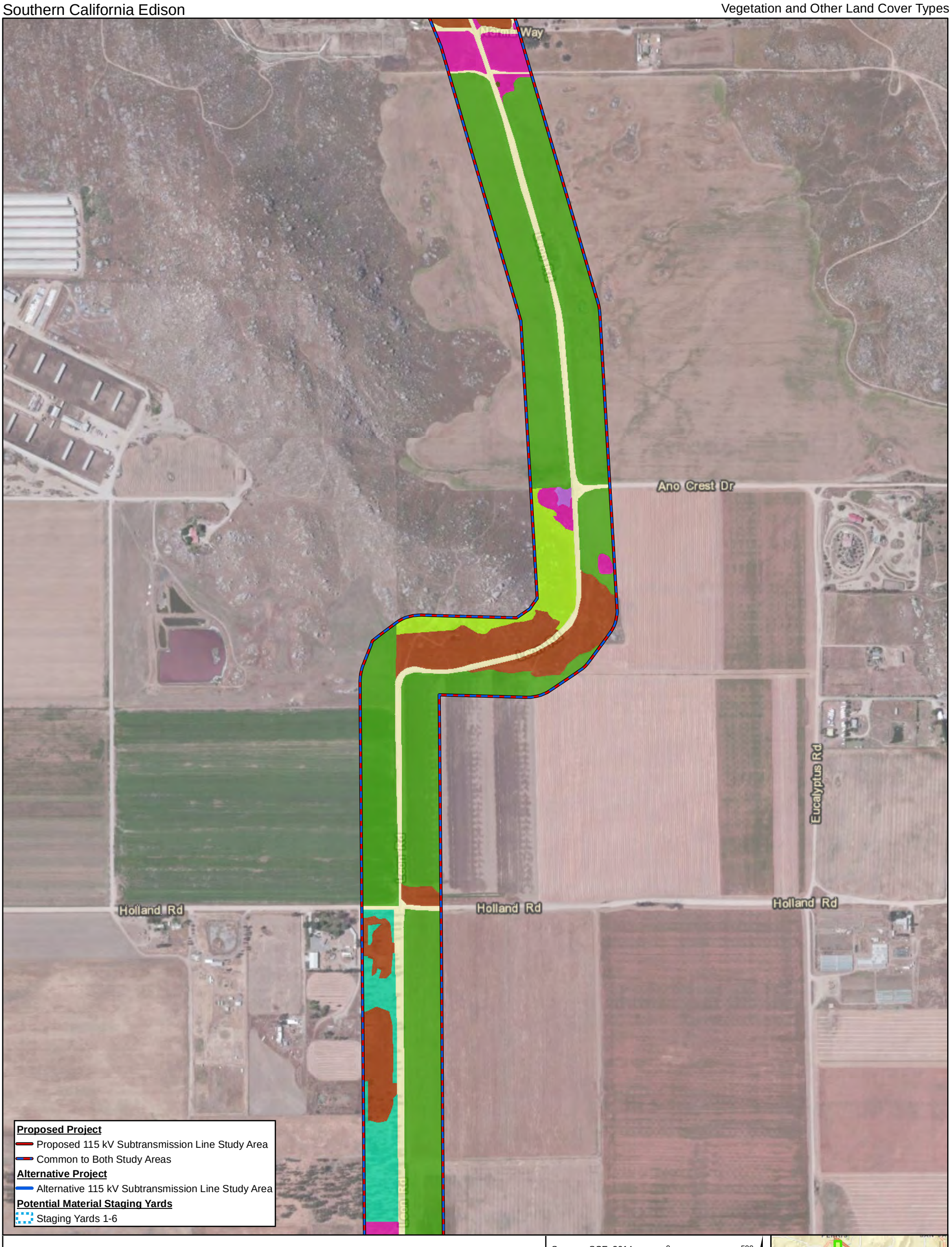


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Agriculture
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Eucalyptus
- Nonnative Grassland
- S. Cottonwood - Willow Riparian Forest
- Southern Willow Scrub

Sheet (8 of 22)

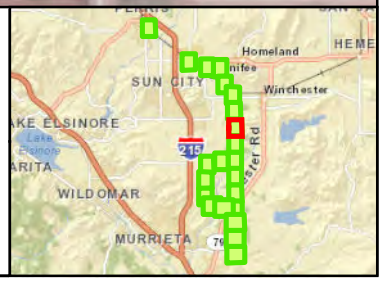
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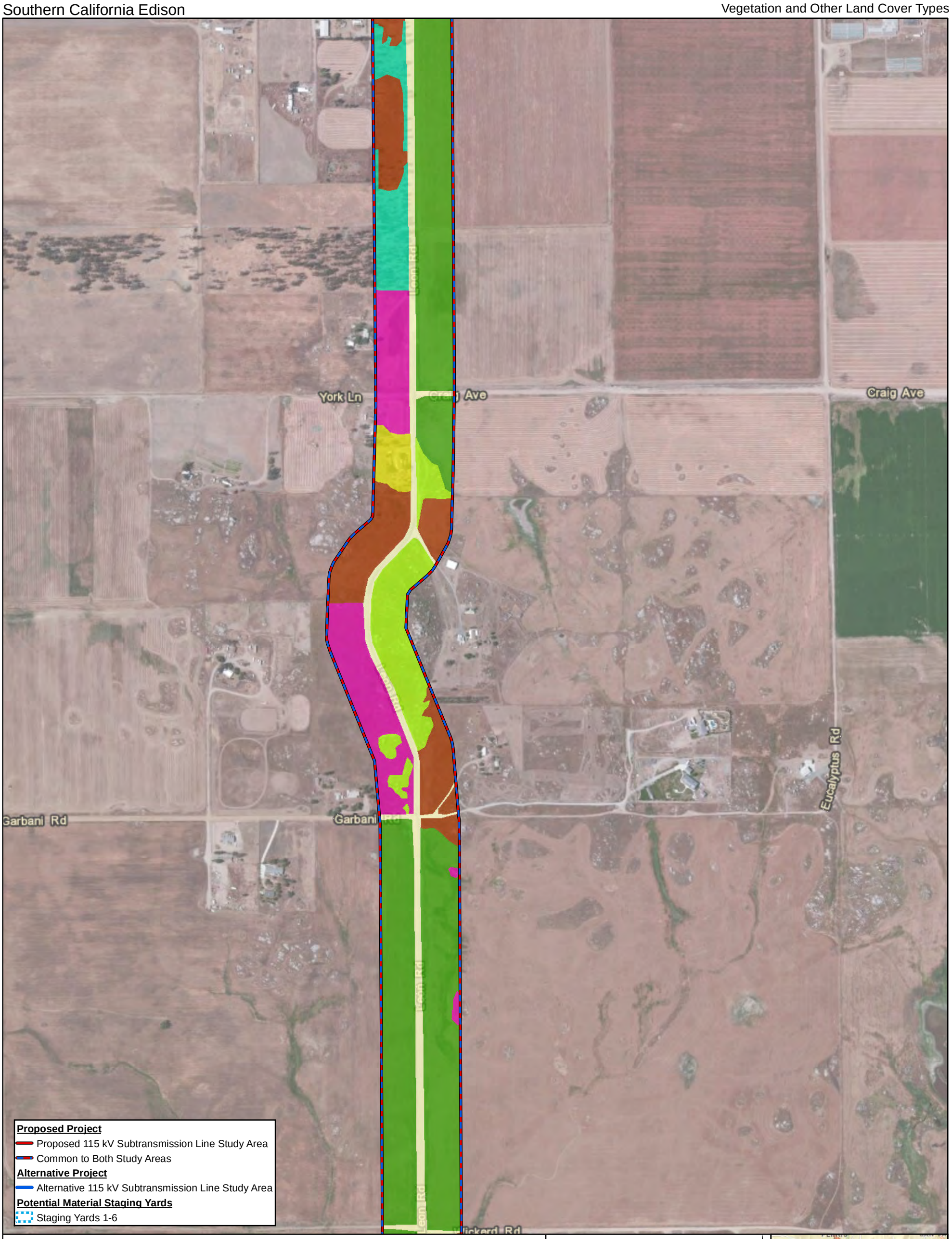


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Agriculture
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Eucalyptus
- Nonnative Grassland
- Nonnative Woodland / Ornamental

Sheet (9 of 22)

Sources: SCE, 2014; USFWS 2014; Riverside County, 2014; TRC 2013
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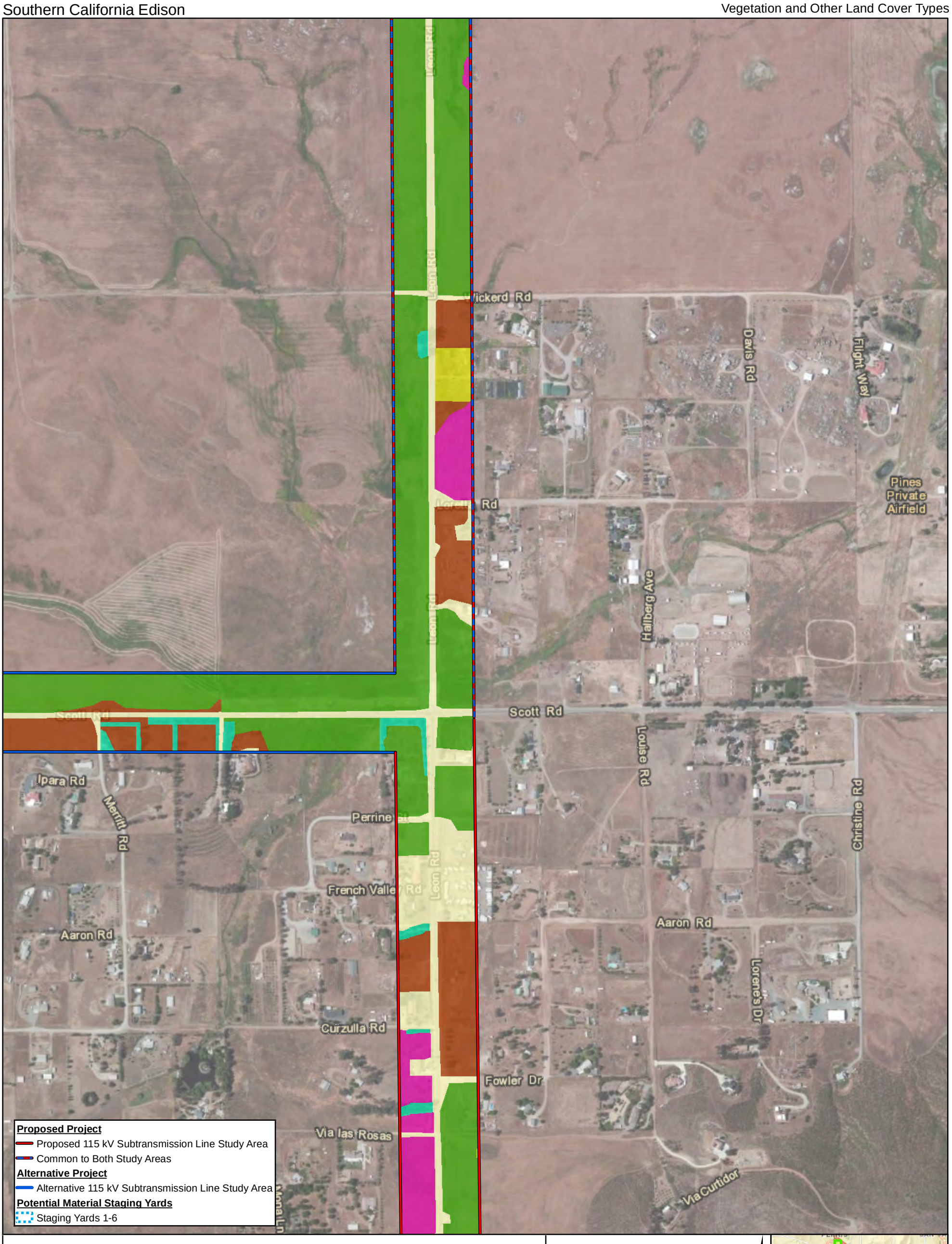
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Agriculture
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Eucalyptus
- Nonnative Grassland
- Nonnative Woodland / Ornamental

Sheet (10 of 22)

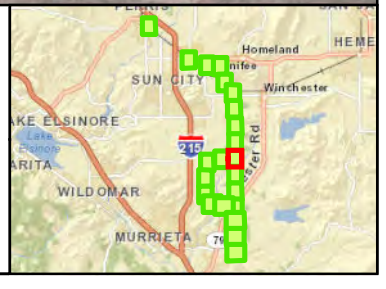
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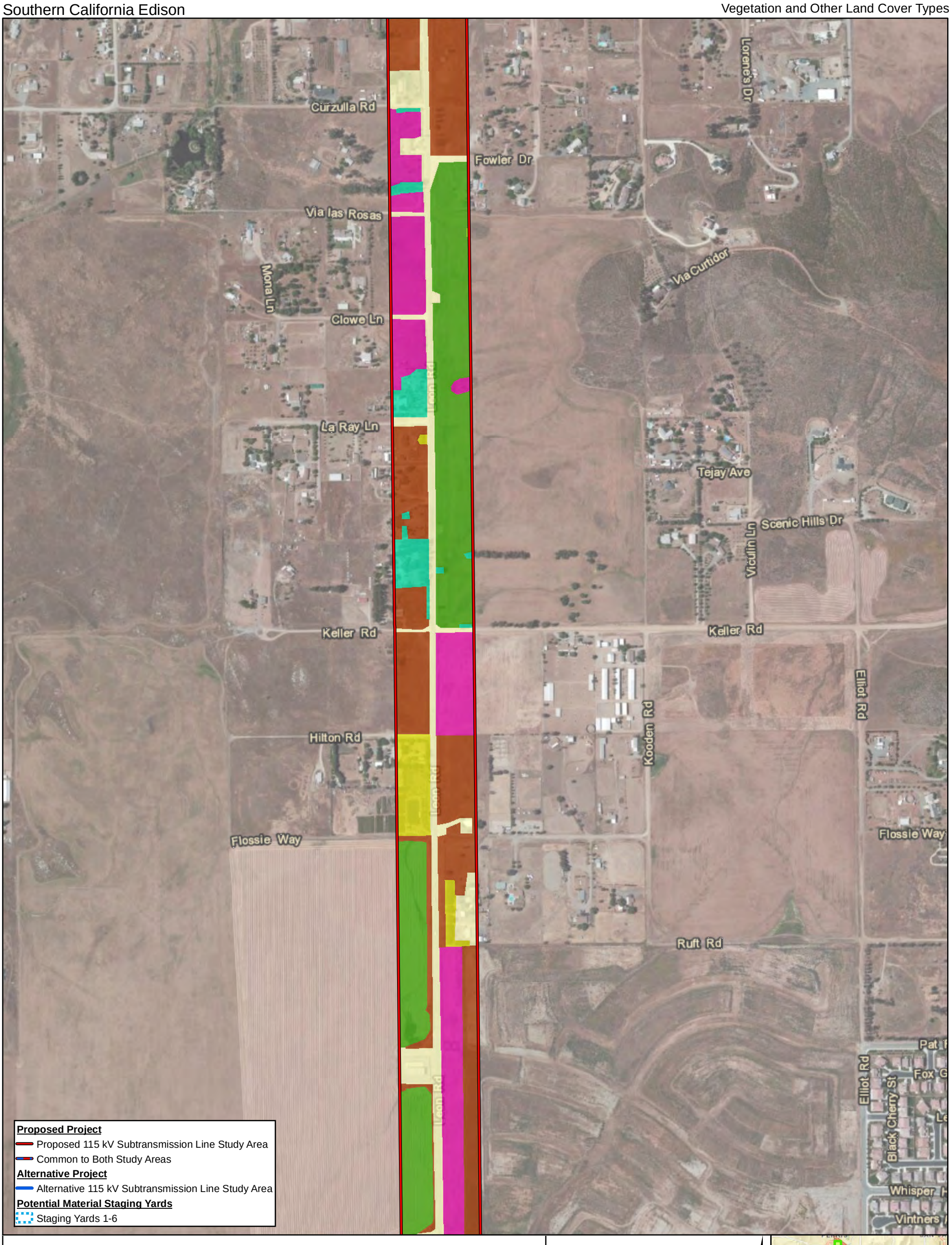
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-4**

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Agriculture
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Eucalyptus
- Nonnative Grassland
- Nonnative Woodland / Ornamental

Sheet (11 of 22)

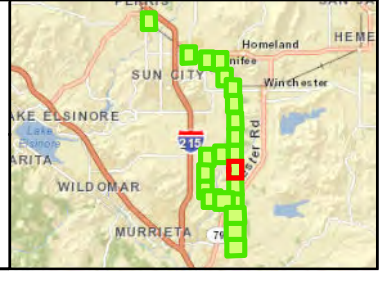
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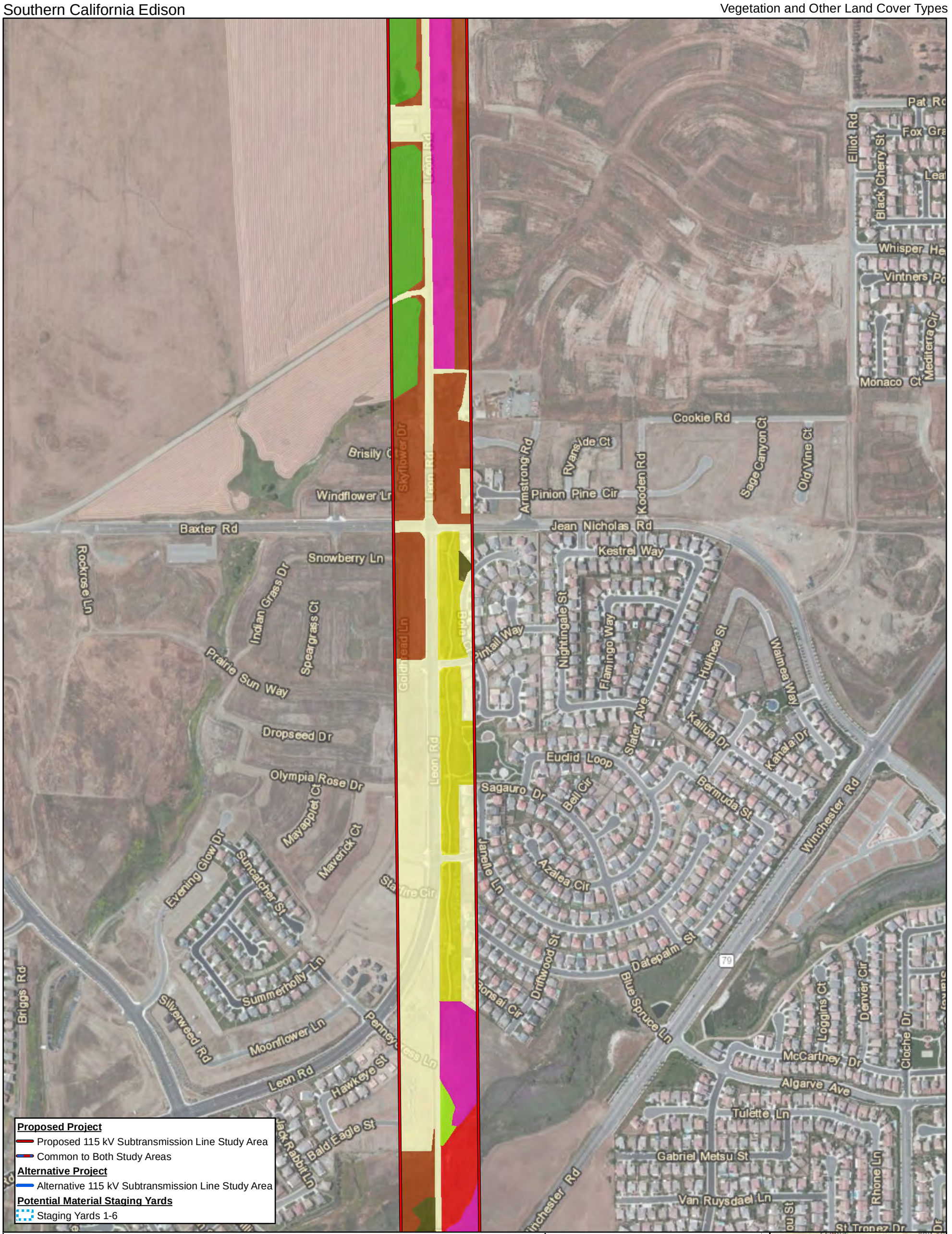


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Proposed Project
- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Areas

Alternative Project
- Alternative 115 kV Subtransmission Line Study Area

Potential Material Staging Yards
- Staging Yards 1-6

Vegetation Communities
- Agriculture
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Freshwater Marsh
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- S. Cottonwood - Willow Riparian Forest

Sheet (12 of 22)

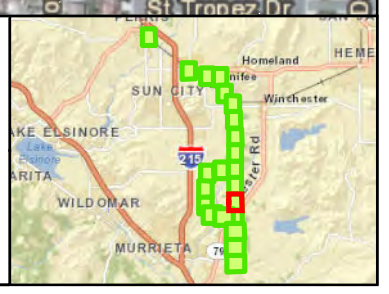
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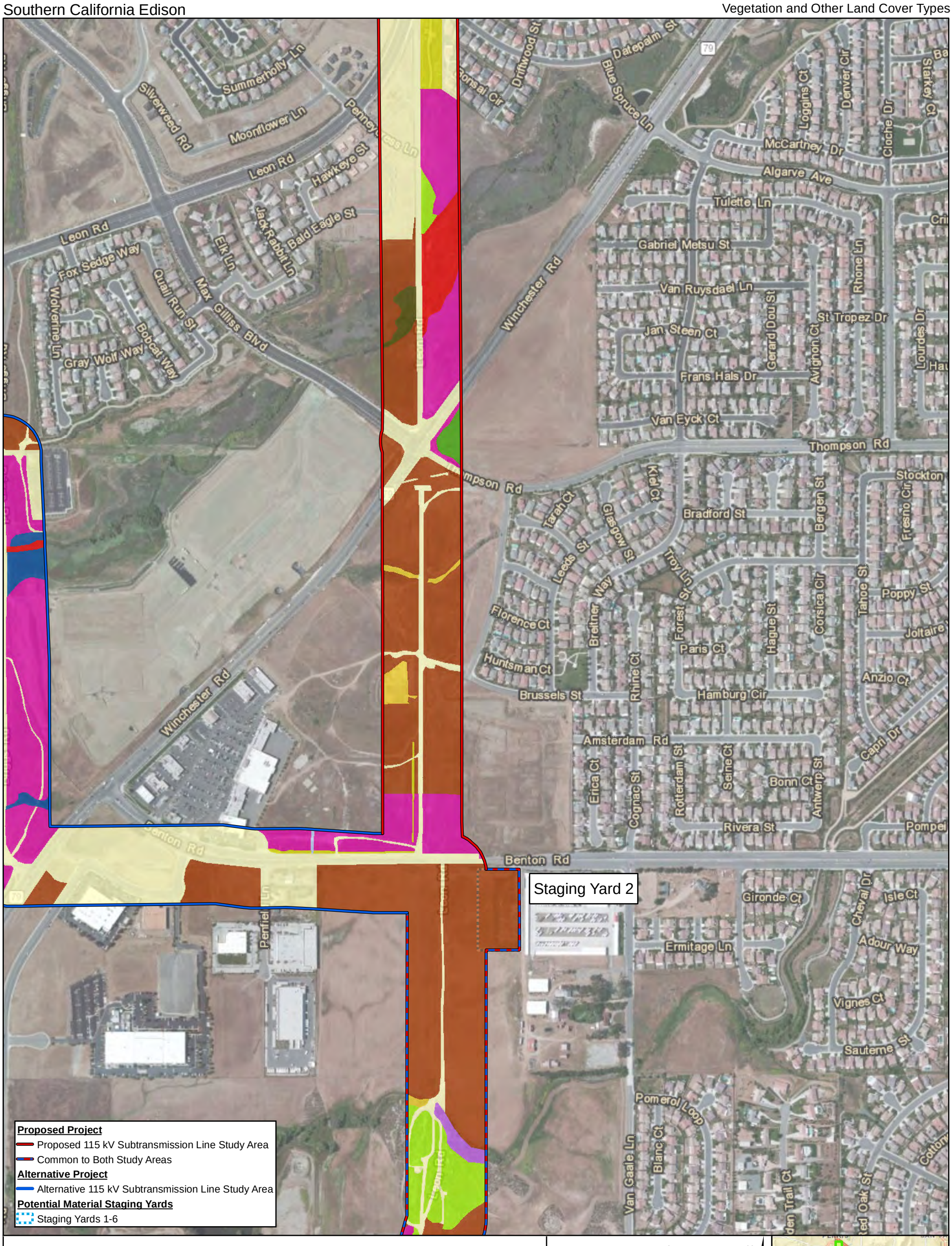
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-4**

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Agriculture
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed Wetland
- Disturbed / Ruderal
- Emergent Wetland
- Freshwater Marsh
- Mulefat Scrub
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- S. Cottonwood - Willow Riparian Forest
- Southern Willow Scrub

Sheet (13 of 22)

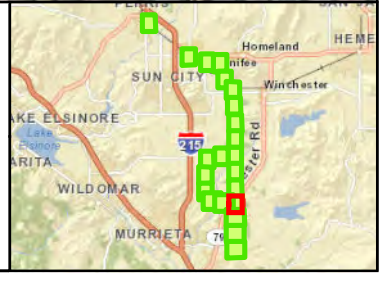
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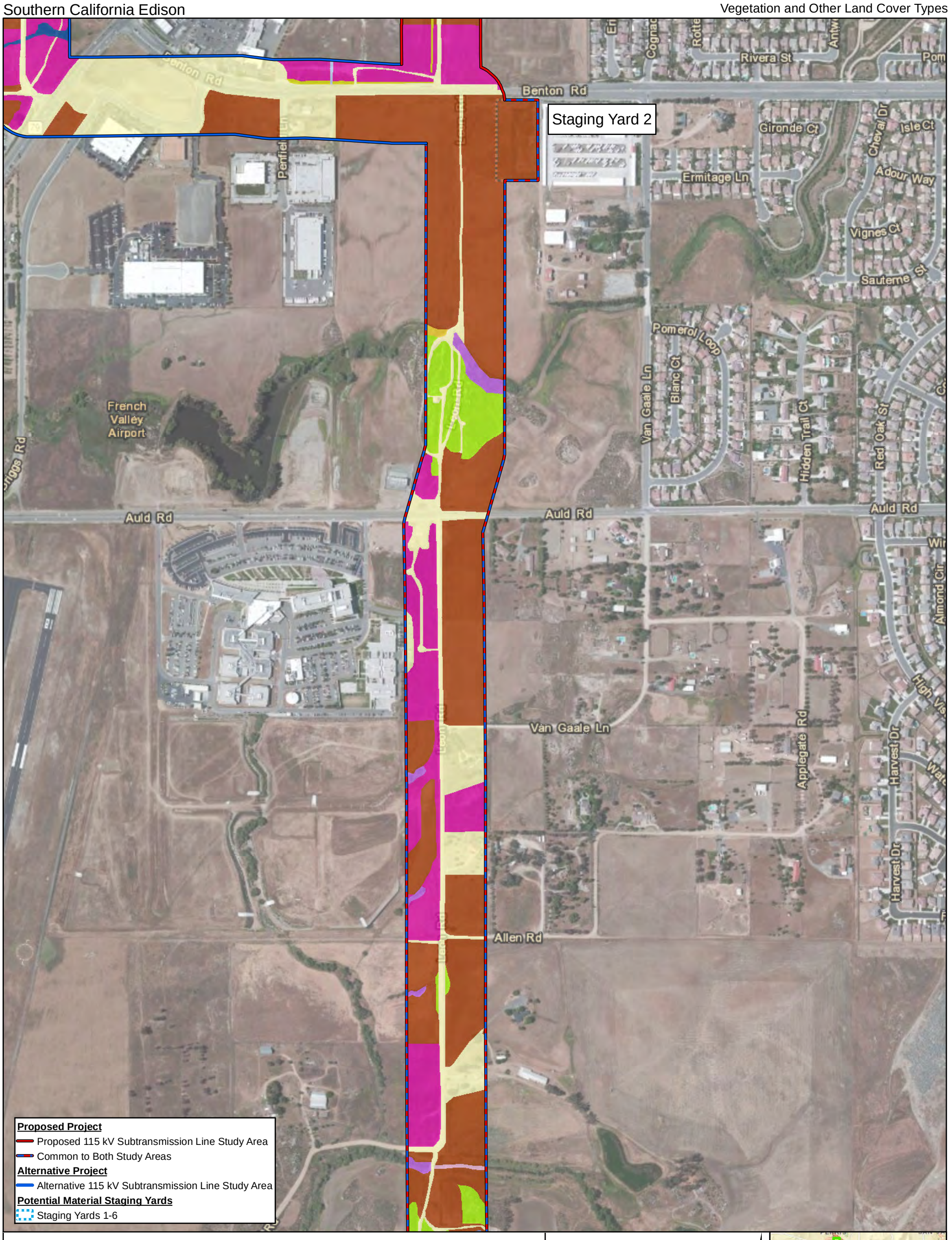
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-4**

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed Wetland
- Disturbed / Ruderal
- Emergent Wetland
- Mulefat Scrub
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- Open Water
- Southern Willow Scrub
- Tamarisk Scrub

Sheet (14 of 22)

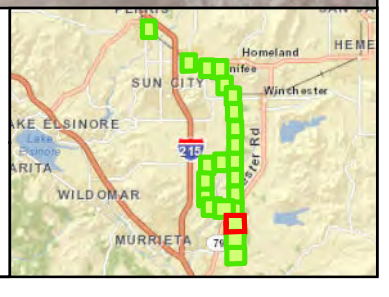
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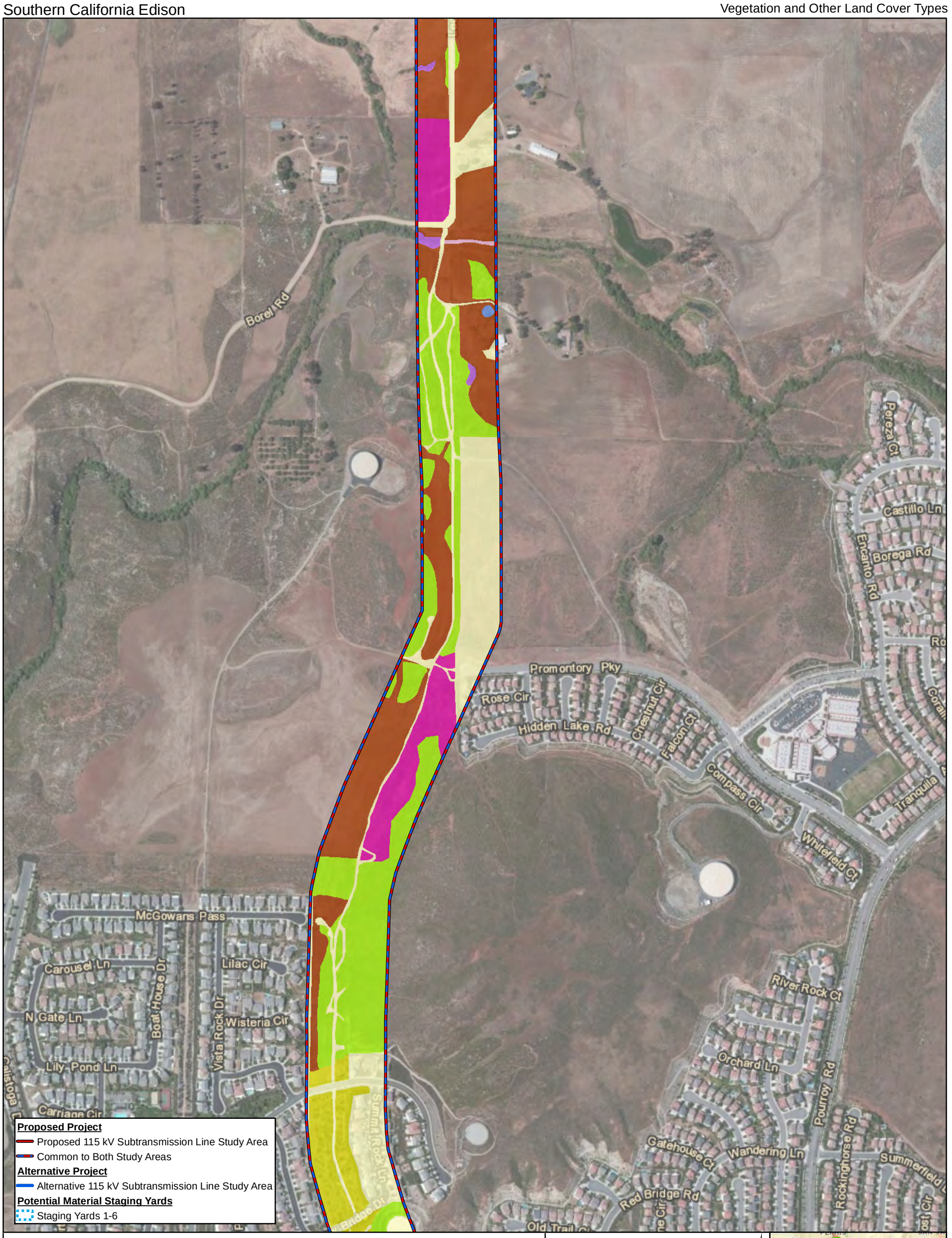


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- Open Water
- Southern Willow Scrub
- Tamarisk Scrub

Sheet (15 of 22)

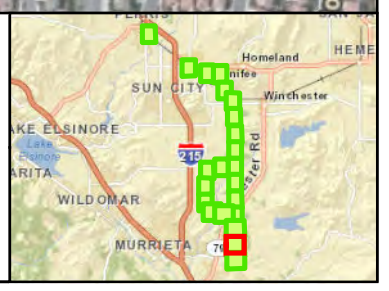
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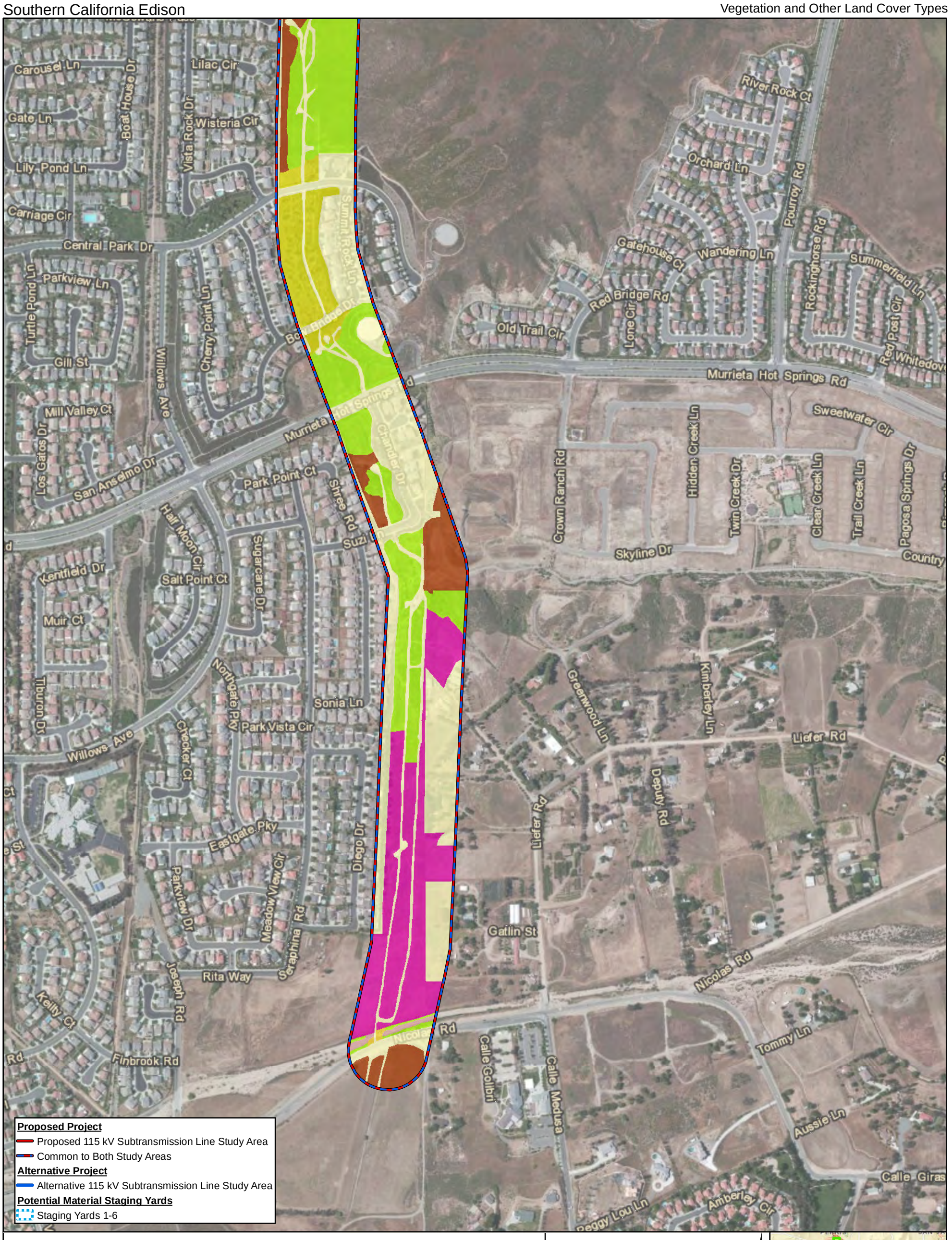
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-4**

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Mulefat Scrub
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- Nonvegetated Channel

Sheet (16 of 22)

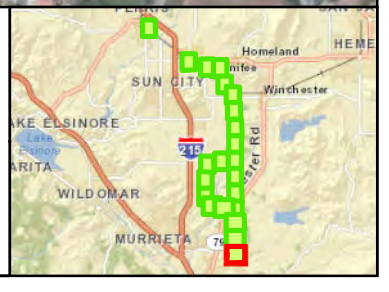
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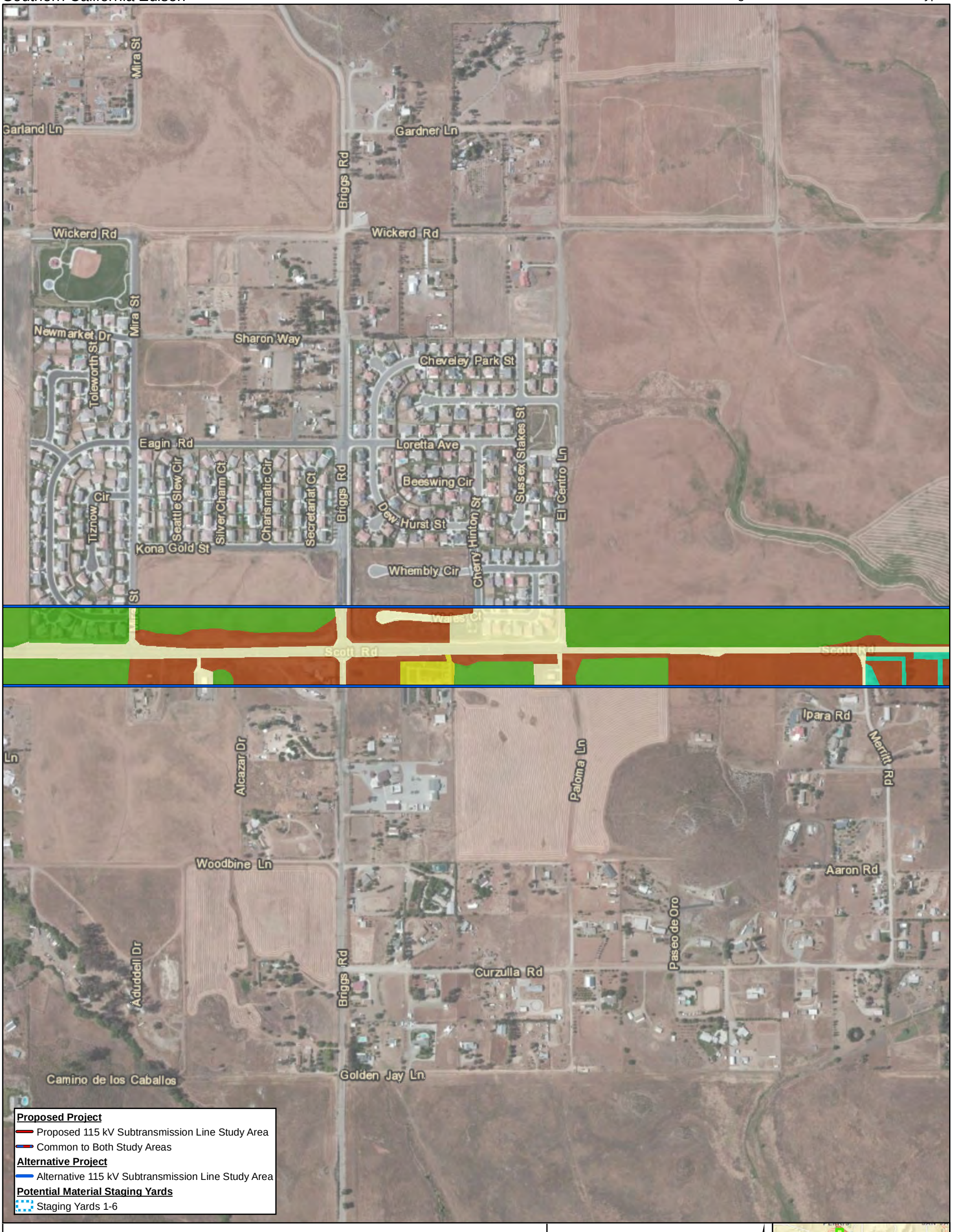


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Agriculture
- Urban / Developed
- Disturbed / Ruderal
- Eucalyptus
- Nonnative Woodland / Ornamental

Sheet (17 of 22)

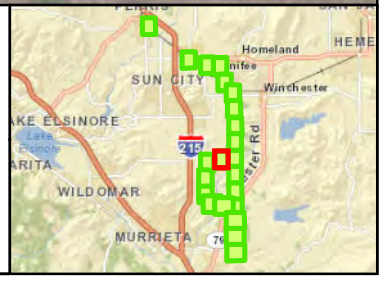
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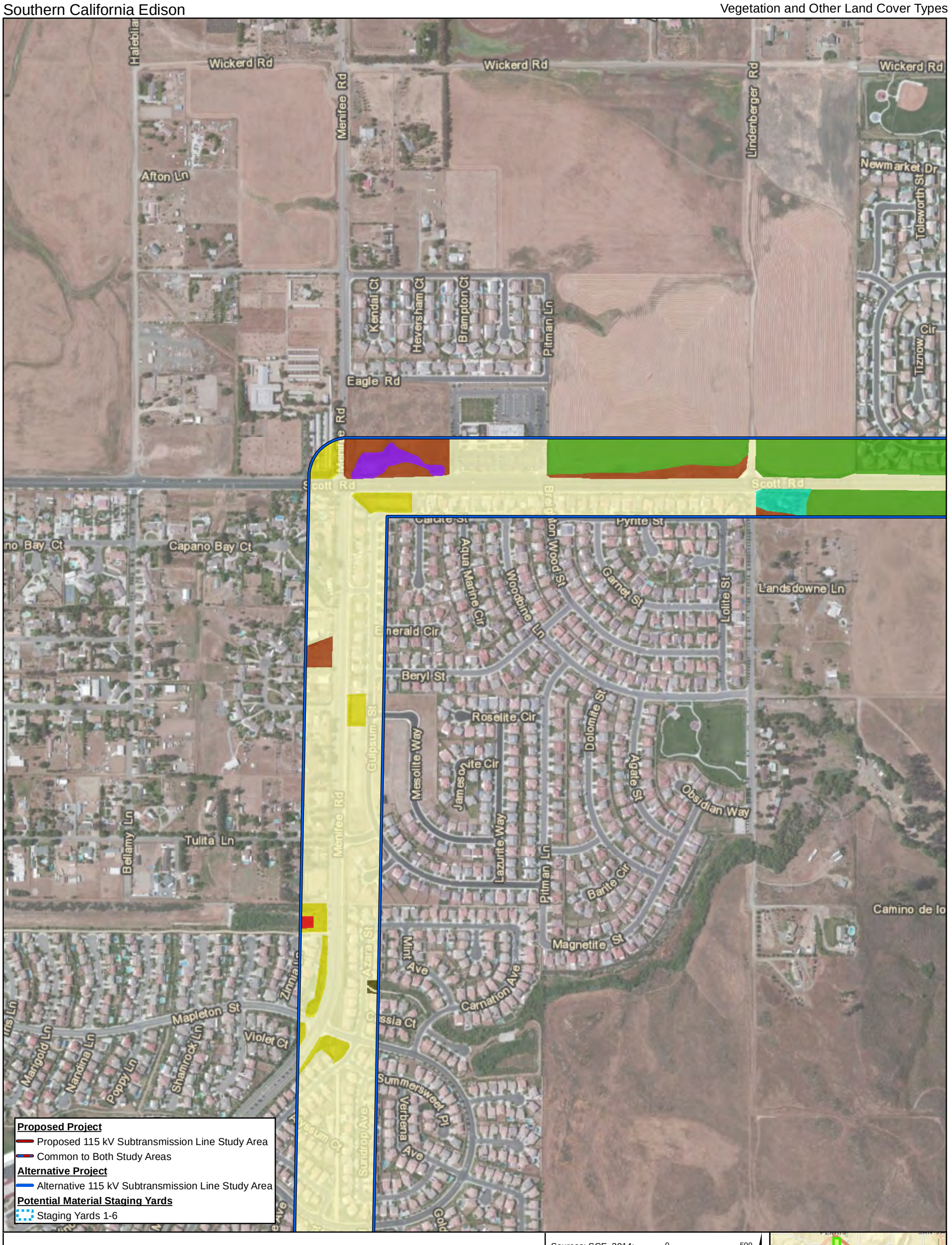
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-4**

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

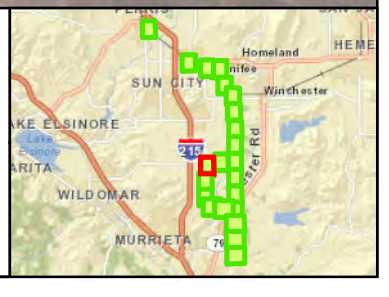
- Agriculture
- Urban / Developed
- Disturbed / Ruderal
- Eucalyptus
- Freshwater Marsh
- Nonnative Woodland / Ornamental
- S. Cottonwood - Willow Riparian Forest
- San Diego Mesa Claypan Vernal Pool

Sheet (18 of 22)

Sources: SCE, 2014;
USFWS 2014;
Riverside County, 2014;
TRC 2013
Aerial Image:
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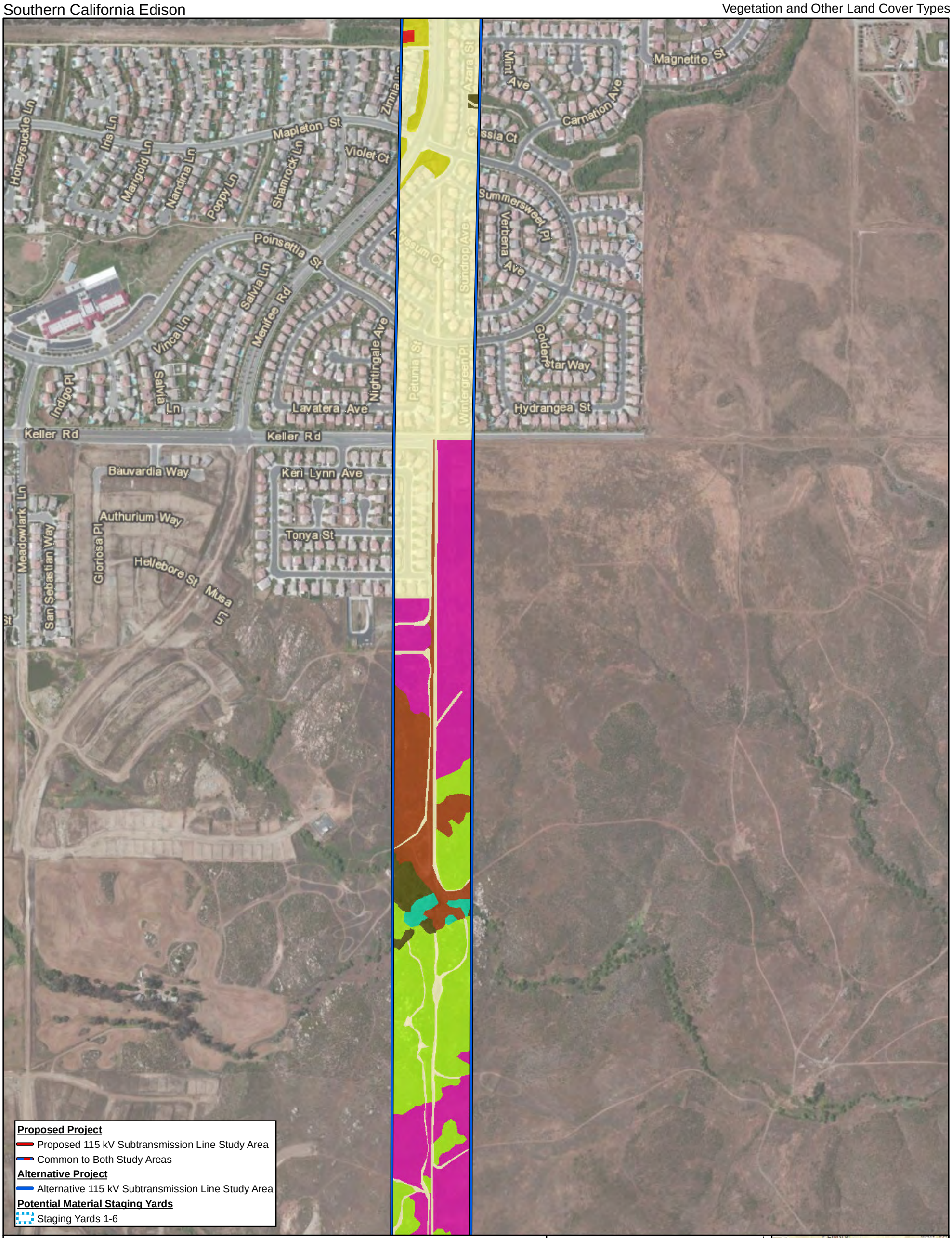
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

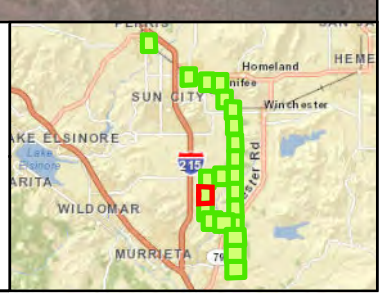
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Eucalyptus
- Freshwater Marsh
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- S. Cottonwood - Willow Riparian Forest

Sheet (19 of 22)

Sources: SCE, 2014;
USFWS 2014;
Riverside County, 2014;
TRC 2013
Aerial Image:
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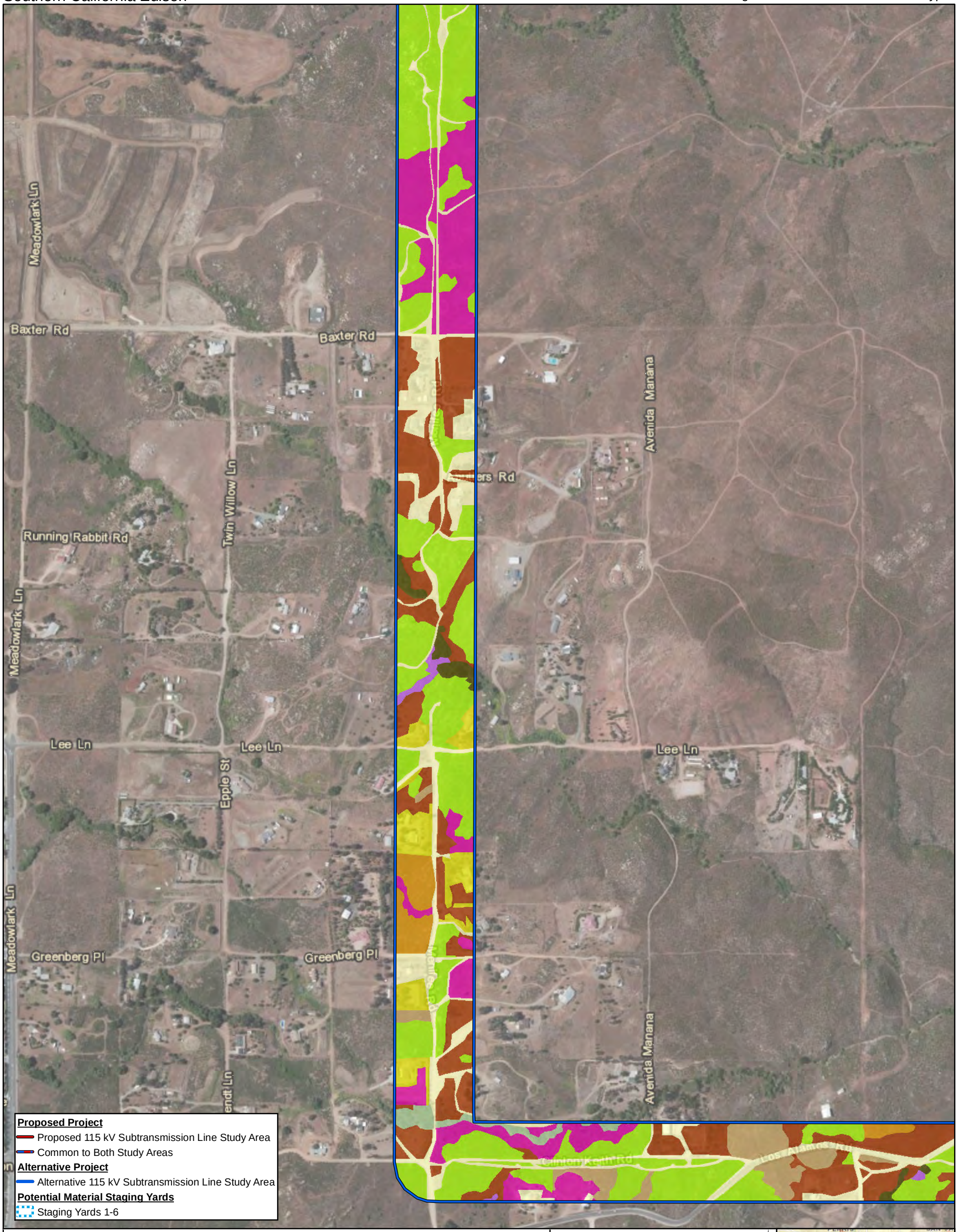
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Cen. Coast Arroyo Willow Riparian Forest
- Chamise Chaparral
- Coastal Sage - Chaparral Scrub
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- S. Cottonwood - Willow Riparian Forest
- Southern Willow Scrub

Sheet (20 of 22)

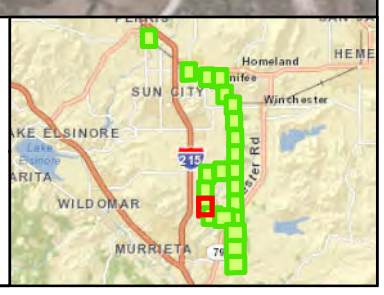
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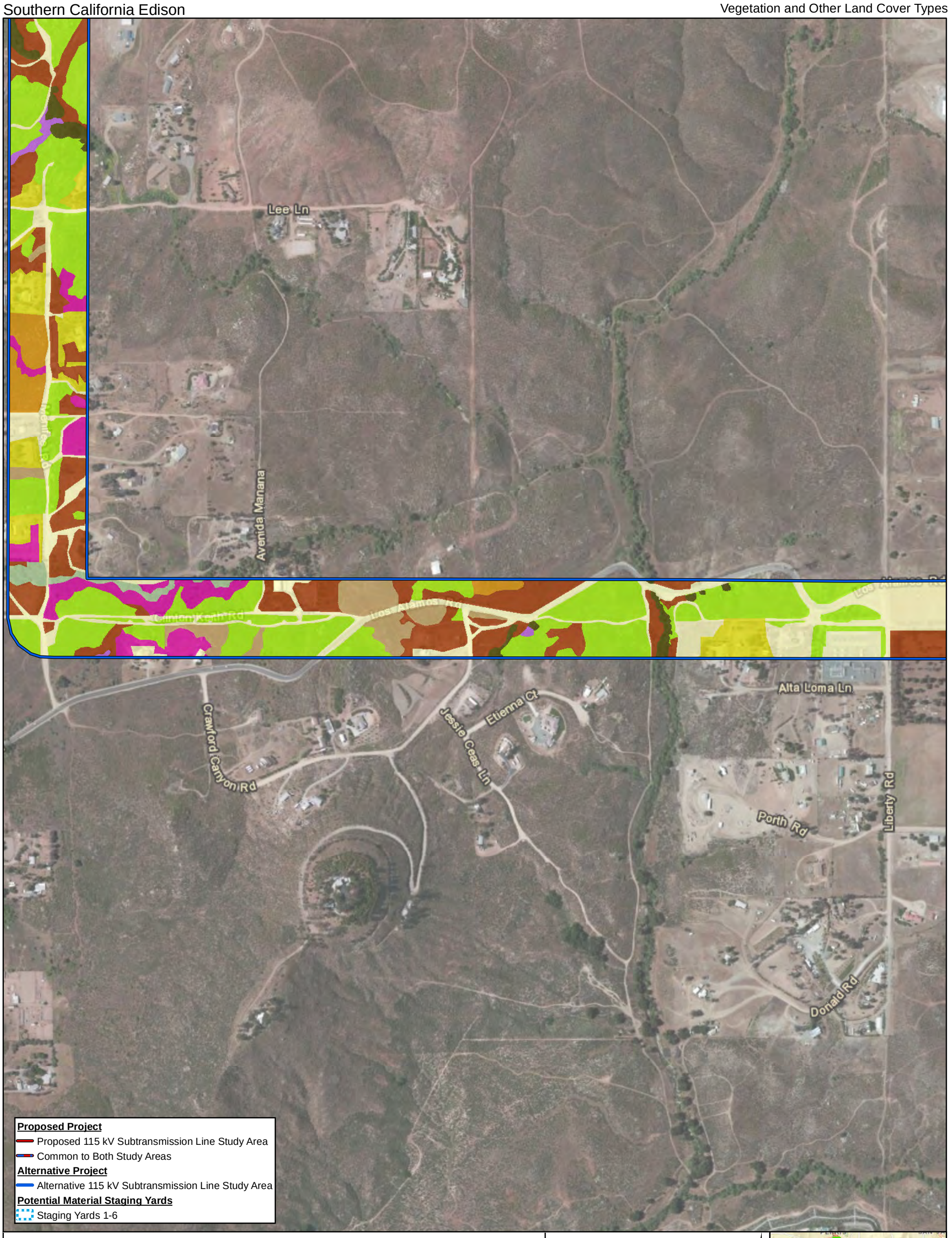


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-4

Southern California Edison

Vegetation and Other Land Cover Types



Vegetation Communities

- Cen. Coast Arroyo Willow Riparian Forest
- Chamise Chaparral
- Coastal Sage - Chaparral Scrub
- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- S. Cottonwood - Willow Riparian Forest
- Southern Willow Scrub

Sheet (21 of 22)

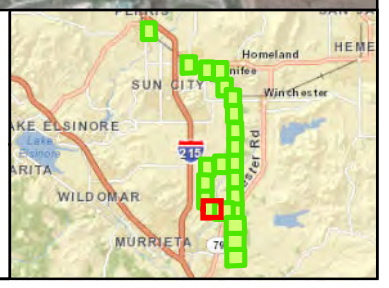
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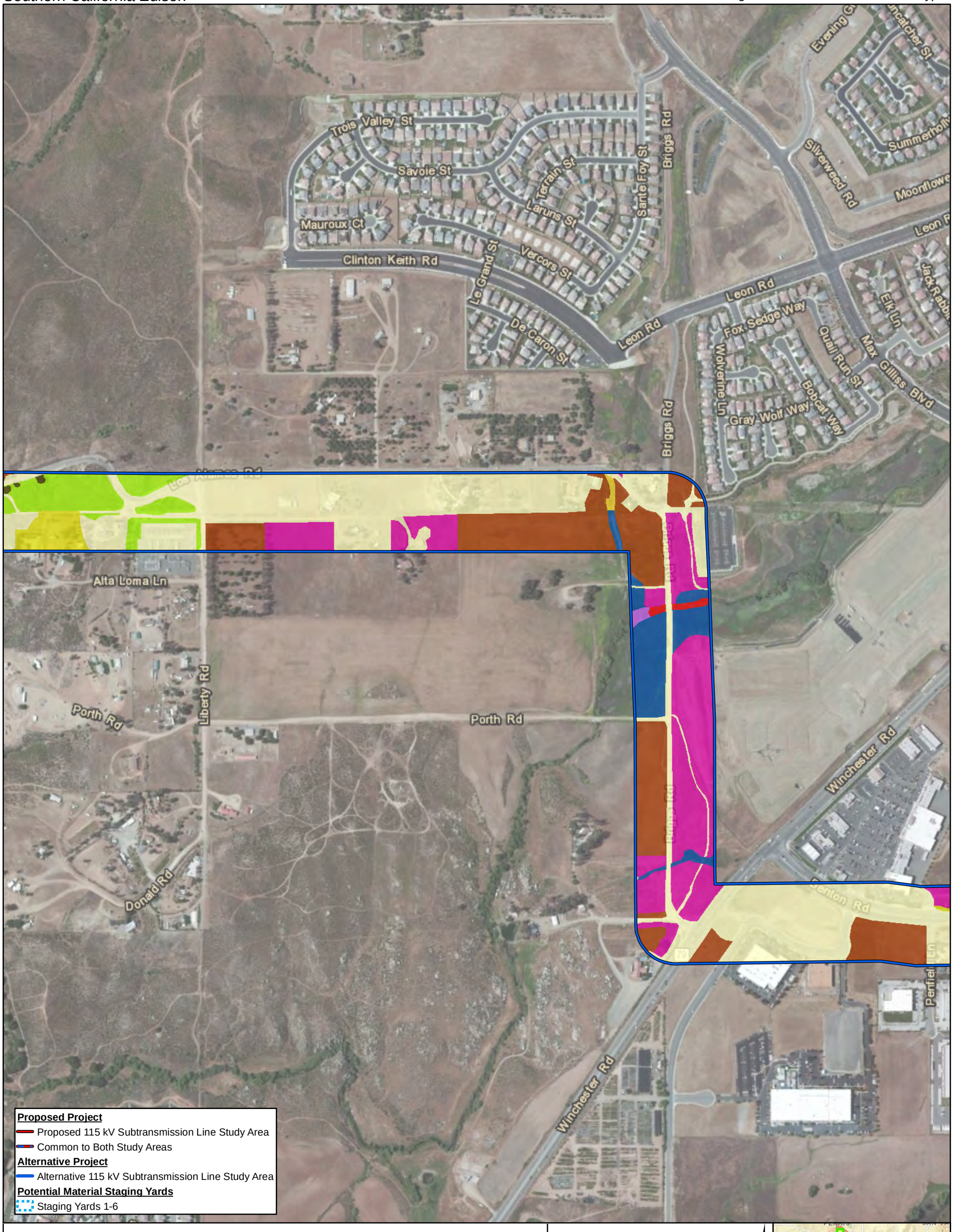
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-4**

Southern California Edison Vegetation and Other Land Cover Types



Vegetation Communities

- Diegan Coastal Sage Scrub
- Urban / Developed
- Disturbed / Ruderal
- Emergent Wetland
- Freshwater Marsh
- Mulefat Scrub
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- S. Cottonwood - Willow Riparian Forest
- Southern Willow Scrub
- Tamarisk Scrub

Sheet (22 of 22)

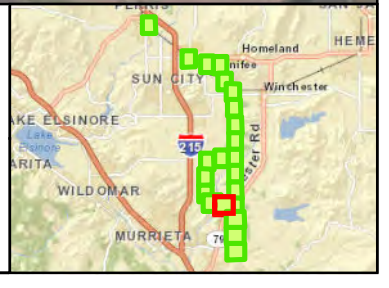
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Urban/Developed

These areas consist of ornamental, residential, commercial, infrastructure, and roadway development. These areas may include some planted, nonnative vegetation. Approximately 215.44 acres of urban/developed parcels is located within the Proposed Project Study Area.

Agriculture

The predominant form of agriculture in the inter-mountain lowland area of western Riverside County is dry grain cultivation, particularly wheat. Agriculture is confined to valley bottoms and low-gradient slopes, and is characterized by monocultures of crops requiring cultivation (ground disturbance) and subject to regular, mechanical harvest. Actively tended agricultural lands account for approximately 260.83 acres within the Proposed Project Study Area.

Sensitive Vegetation Communities

Some of the vegetation communities occurring within the Proposed Project Study Area are considered sensitive due to natural rarity, geographic restriction combined with historic decline from human development, and/or association with watercourses. These vegetation communities, such as Diegan coastal sage scrub, can provide or support specialized habitat conditions for special status plant or animal species.

Guidance for determining sensitive vegetation communities is provided by the resource agencies, including CDFW and CNPS, and by supporting documentation such as the CNDDB. Additional information regarding protections of special status plant communities can be found in Section 4.4.2 Regulatory Setting.

See Figure 4.4-4 Vegetation and Other Land Cover Types distributions of sensitive vegetation communities within a 500-foot buffer of the Proposed Project, and see Section 4.4.2 Regulatory Setting for a review of applicable laws. Sensitive communities that occur within the Proposed Project Study Area are discussed below.

Coastal sage scrub, which includes Diegan coastal sage scrub forms, is considered a sensitive habitat type by both federal and state resource agencies, local jurisdictions, and conservation organizations throughout southern California. CDFW considers coastal sage scrub regionally sensitive due to the acreage lost to urban expansion and the number of special status species that this habitat supports. Coastal sage scrub provides habitat for coastal California gnatcatcher, a federally threatened species, and a variety of other animal and plant species that are candidates for federal listing, CSSC, or considered sensitive by local jurisdictions. The Proposed Project Study Area has 71.27 acres of Diegan coastal sage scrub.

All riparian communities in southern California, including woody scrub types, are considered sensitive by federal and state resource agencies. Riparian habitats are protected by the California Endangered Species Act (CESA), the California Fish and Game Code (CFGC), the Federal Endangered Species Act (FESA), and the CWA, in addition to Riverside County ordinance. Estimated historical losses of riparian habitat in southern California range as high as 95 to 97 percent. Habitat destruction and degradation has resulted from wetland conversion for

agricultural purposes, urban development, and flood control projects. Riparian vegetation provides shelter, food, and breeding habitat for numerous plant and wildlife species. Sensitive riparian communities comprise 7.16 acres of the Proposed Project Study Area (Table 4.4-2 Vegetation and Land Cover Types within a 500-Foot Buffer of the Proposed Project).

Jurisdictional Waters and Wetlands

All potentially jurisdictional waters and wetlands identified within the Proposed Project Study Area were formally delineated in accordance with all agency technical guidance documents.

Segment 1 of the Proposed Project encompasses portions of nine jurisdictional features total, which are Salt Creek and eight unnamed intermittent to ephemeral features that were formally delineated. Six of these features generally drain to the west/southwest within the Proposed Project Study Area and flows are primarily captured by the Railroad Canyon Reservoir and ultimately Lake Elsinore, or Murrieta Creek which flows directly into the Santa Margarita River that connects to the Pacific Ocean through the Santa Margarita Lagoon, located approximately 29 miles away. The remaining three features are isolated, agricultural ditches that terminate within the landscape.

The nine features within Segment 1 of the Proposed Project were assessed to determine if they meet the definition of a federal wetland. Of the nine features in Segment 1 of the Proposed Project, Salt Creek and Features 5, 6, 7, and 8 have the hydrology and support habitat necessary to meet the three-parameter definition of a wetland. The remaining features are characterized as non-wetland waters.

Segment 2 of the Proposed Project encompasses portions of eight jurisdictional features that were formally delineated. The eight jurisdictional features consist of two named features, Santa Gertrudis Creek and Tucalota Creek, in addition to six ephemeral or intermittent unnamed streams and their associated wetland/riparian vegetation.

All jurisdictional features within Segment 2 of the Proposed Project Study Area drain to the west/southwest into Murrieta Creek, located west of the Proposed Project. Of the eight jurisdictional features, seven features support wetland and non-wetland waters of the United States (U.S.) and state and one supports only non-wetland waters and a riparian component. These eight features all support the ordinary high water mark (OHWM) and eventually flow into Murrieta Creek, which flows directly into the Santa Margarita River that connects to the Pacific Ocean through the Santa Margarita Lagoon, located approximately 29 miles away.

The three Temporary Ponded Areas (TPAs) within Segment 2 of the Proposed Project Study Area were also assessed to determine if they meet the definition of a federal wetland and support vernal pool indicator species. None of these TPAs evaluated met the definition of a three-parameter wetland. An additional four features were delineated within the Alternative Project Study Area in addition to four TPAs; these four features and TPAs are discussed further under Jurisdictional Waters and Wetlands.

Jurisdictional Waters and Wetlands within Segment 1 of the Proposed Project

TRC conducted a detailed jurisdictional waters and wetlands delineation for the Proposed Project in April 2012. The results were presented in the TRC Jurisdictional Waters and Wetlands Delineation Report (TRC, 2012). As noted above, Segment 1 of the Proposed Project supports nine wetland and non-wetland water features that are potentially jurisdictional under the United States Army Corps of Engineers (USACE), State Water Resources Control Board (SWRCB)/Regional Water Quality Control Board (RWQCB), and/or CDFW.

The location and limits of the USACE and SWRCB/RWQCB jurisdictional areas within Segment 1 of the Proposed Project are depicted in Figure 4.4-5 USACE and RWQCB Waters Jurisdiction, and those of the CDFW jurisdictional areas are depicted in Figure 4.4-6 CDFW Waters Jurisdiction.

The potential USACE jurisdiction within Segment 1 of the Proposed Project totals 9.57 acres, of which 9.13 acres is wetlands (primarily found in Salt Creek and Feature 5) and 0.44 of an acre is non-wetland waters of the U.S. The locations and limits of these USACE jurisdictional areas are depicted in Figure 4.4-5 USACE and RWQCB Waters Jurisdiction. Acreages of USACE jurisdiction for individual features within Segment 1 of the Proposed Project are summarized in Table 4.4-3 Summary of Potential 401 and 404 Jurisdiction for Segment 1 of the Proposed Project.

Table 4.4-3 Summary of Potential 401 and 404 Jurisdiction for Segment 1 of the Proposed Project

Feature Name	Waters of the U.S. (Acres)	Wetland Areas (Acres)	Total USACE Jurisdiction (Acres)	Approximate Linear Feet
Salt Creek (Domenigoni Channel)	0	4.30	**4.30**	500
Feature 4	0.04	0	**0.04**	1,390
Feature 5	0	4.36	**4.36**	1,220
Feature 6	0	0.01	**0.01**	190
Feature 7	0	0.10	**0.10**	645
Feature 8	0.40	0.36	**0.76**	640
Total	**0.44**	**9.13**	**9.57**	**4,585**

Salt Creek and five drainage features within Segment 1 of the Proposed Project Study Area have been determined to be USACE jurisdictional waters subject to regulation pursuant to Sections 401 and 404 of the CWA. However, three features are isolated waters that are potentially not subject to USACE jurisdiction. While these features are potentially outside of USACE

jurisdiction, they may still be subject to Waste Discharge Requirements (WDRs) from the SWRCB/RWQCB pursuant to Section 13260 of the Porter-Cologne Water Quality Control Act (Porter-Cologne). The totals of these isolated features are summarized in Table 4.4-4 Summary of Potential RWQCB Jurisdiction Subject to WDR Requirements for Segment 1 of the Proposed Project.

Table 4.4-4 Summary of Potential RWQCB Jurisdiction Subject to WDR Requirements for Segment 1 of the Proposed Project

Feature Name	Waters Areas (Acres)	Wetland Areas (Acres)	Total RWQCB Jurisdiction (Acres)	Approximate Linear Feet
Feature 1	0.38	0	**0.38**	1,380
Feature 2	0.68	0	**0.68**	1,620
Feature 3	0.11	1.33	**0.11**	1,550
Total	**1.17**	**1.33**	**1.17**	**4,550**

CDFW jurisdiction associated with Segment 1 of the Proposed Project totals 11.23 acres, of which 10.00 acres consists of vegetated riparian habitat and 1.23 acres consists of unvegetated streambed. CDFW jurisdiction includes all areas within USACE jurisdiction and areas potentially subject to WDR requirements, in addition to adjacent associated riparian vegetation. The acreages of all features mapped during the field survey are listed in Table 4.4-5 Summary of CDFW Jurisdiction for Segment 1 of the Proposed Project.

Table 4.4-5 Summary of CDFW Jurisdiction for Segment 1 of the Proposed Project

Feature Name	CDFW Unvegetated (Acres)	CDFW Riparian (Acres)	Total CDFW Jurisdiction (Acres)	Approximate Linear Feet
Feature 1	0.38	0	**0.38**	1,380
Feature 2	0.63	0.32	**0.95**	1,620
Salt Creek Channel	0	4.30	**4.30**	500
Feature 3	0.11	0	**0.11**	1,550
Feature 4	0.04	0	**0.04**	1,390
Feature 5	0	4.36	**4.36**	1,220
Feature 6	0.01	0	**0.01**	190
Feature 7	0.02	0.29	**0.31**	645
Feature 8	0.04	0.73	**0.77**	640

Feature Name	CDFW Unvegetated (Acres)	CDFW Riparian (Acres)	Total CDFW Jurisdiction (Acres)	Approximate Linear Feet
Total	**1.23**	**10.00**	**11.23**	**9,135**

Jurisdictional Waters and Wetlands within Segment 2 of the Proposed Project

AECOM conducted a detailed jurisdictional delineation for the waters and wetlands within Segment 2 of the Proposed Project (between December 2013 and March 2014. The results were presented in the AECOM Jurisdictional Delineation Report (AECOM, 2014b), which is included as Appendix F Segment 1 and Segment 2. Segment 2 of the Proposed Project supports eight jurisdictional features consisting of two named features, Santa Gertrudis Creek and Tucalota Creek, in addition to six ephemeral and intermittent streams, and their associated wetland/riparian vegetation.

Segment 2 of the Proposed Project supports eight jurisdictional features that are potentially waters of the U.S. and/or state under the jurisdictional purview of USACE, RWQCB, and/or CDFW. The location and limits of the USACE and RWQCB jurisdictional areas are depicted in Figure 4.4-5 USACE and RWQCB Waters Jurisdiction, and those of the CDFW jurisdictional areas are depicted in Figure 4.4-6 CDFW Waters Jurisdiction.

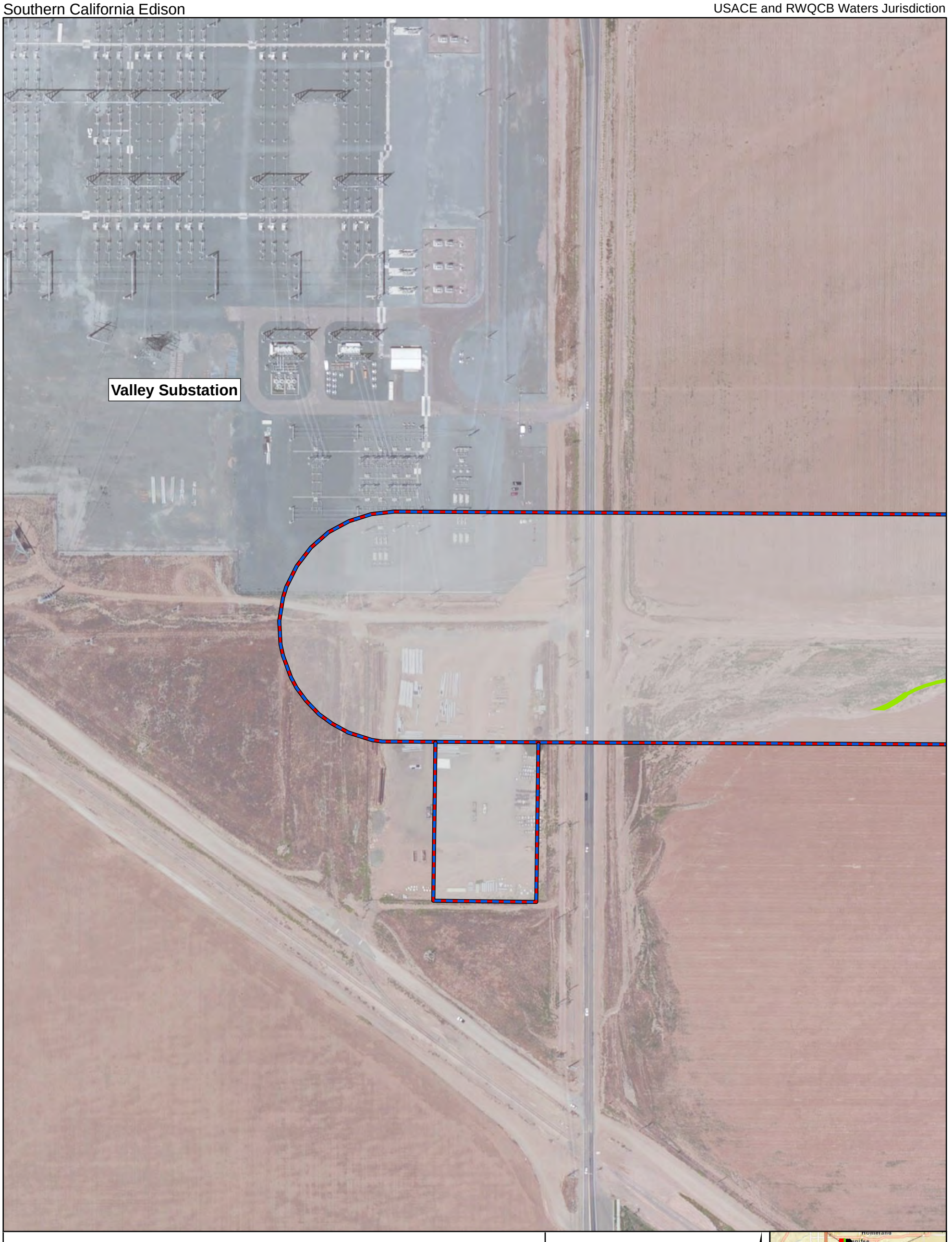
The potential USACE jurisdiction within Segment 2 of the Proposed Project totals 1.14 acres, of which 0.48 of an acre is wetlands and 0.66 of an acre is non-wetland waters of the U.S. Locations and limits of these USACE jurisdictional areas are depicted in Figure 4.4-5 USACE and RWQCB Waters Jurisdiction. Acreages of USACE jurisdiction for individual features within Segment 2 of the Proposed Project Study Area are summarized in Table 4.4-6 Summary of Potential 401 and 404 Jurisdiction for Segment 2 of the Proposed Project.

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (1 of 25)

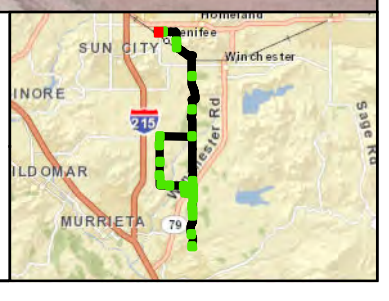
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TRC 2013;
Riverside County, 2014;
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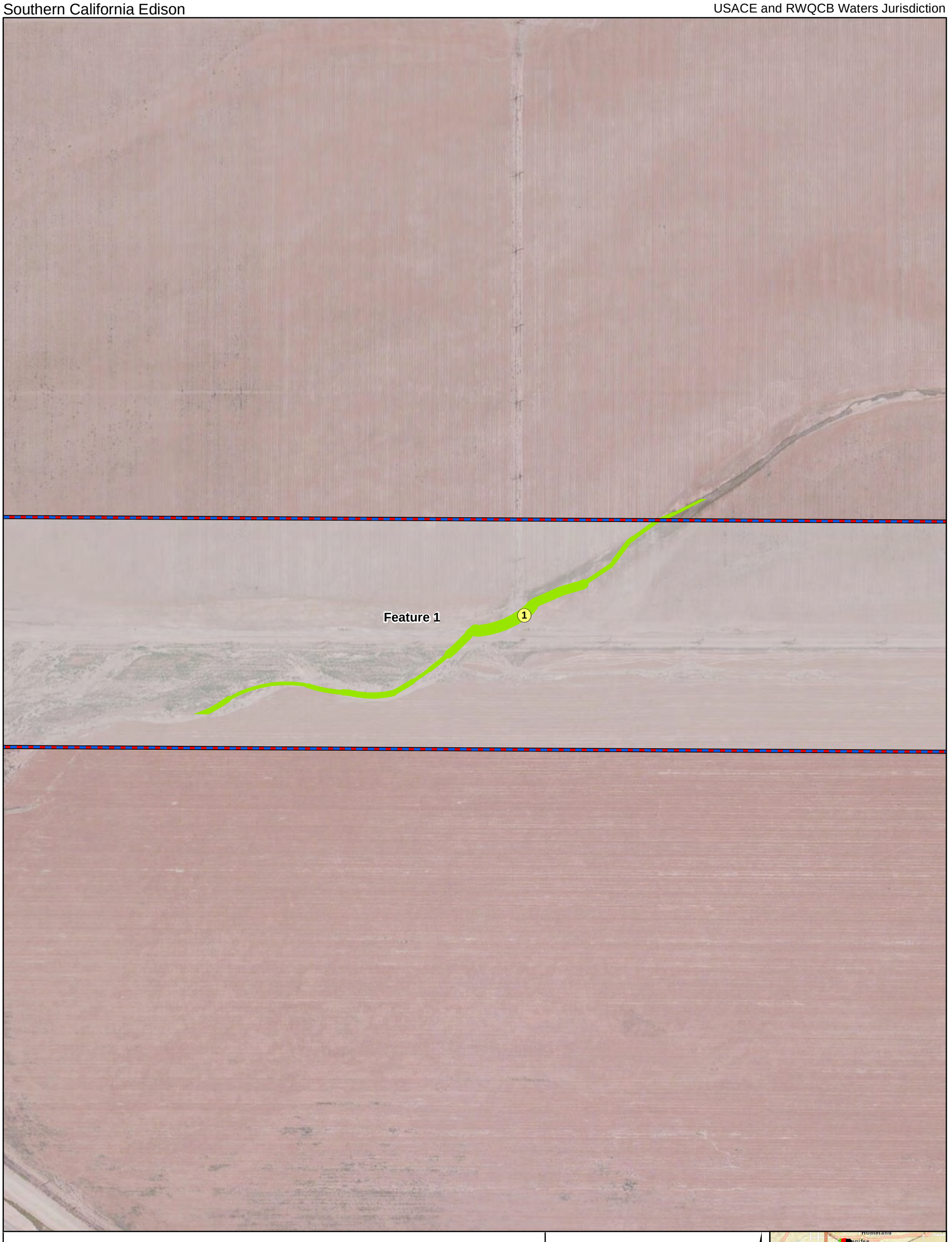


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (2 of 25)

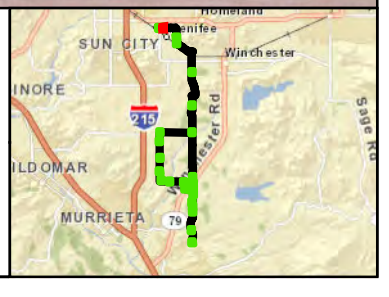
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SCE 2008, 2014;
TRC 2013;
Riverside County, 2014;
Aerial Image:
Esri, 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Area

Alternative Project

- Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

- USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

- RWQCB and CDFW Jurisdiction
- RWQCB Only Wetland

- Areas of Non Jurisdiction
- Photo Locations
- Wetland Pit

Sheet (3 of 25)

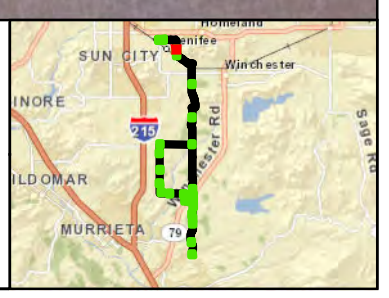
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction

Feature 2

4

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Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (4 of 25)

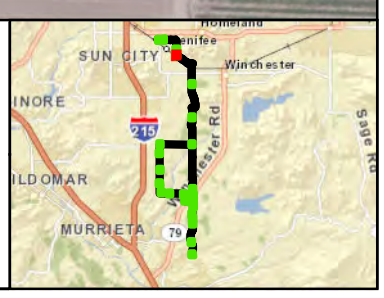
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SOUTHERN CALIFORNIA EDISON
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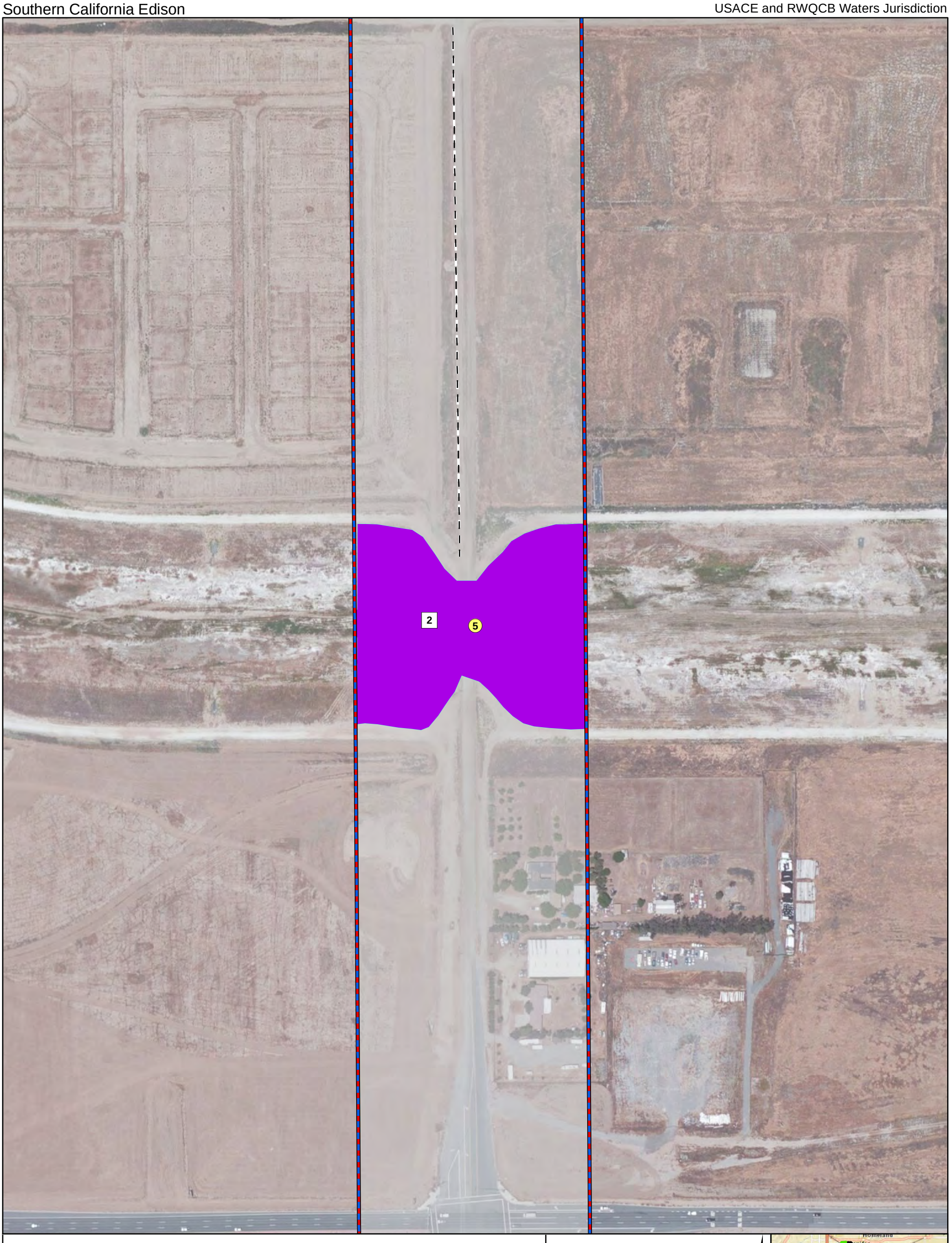


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (5 of 25)

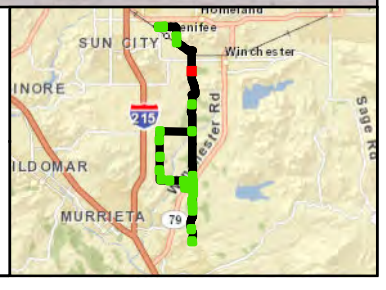
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An EDISON INTERNATIONAL Company

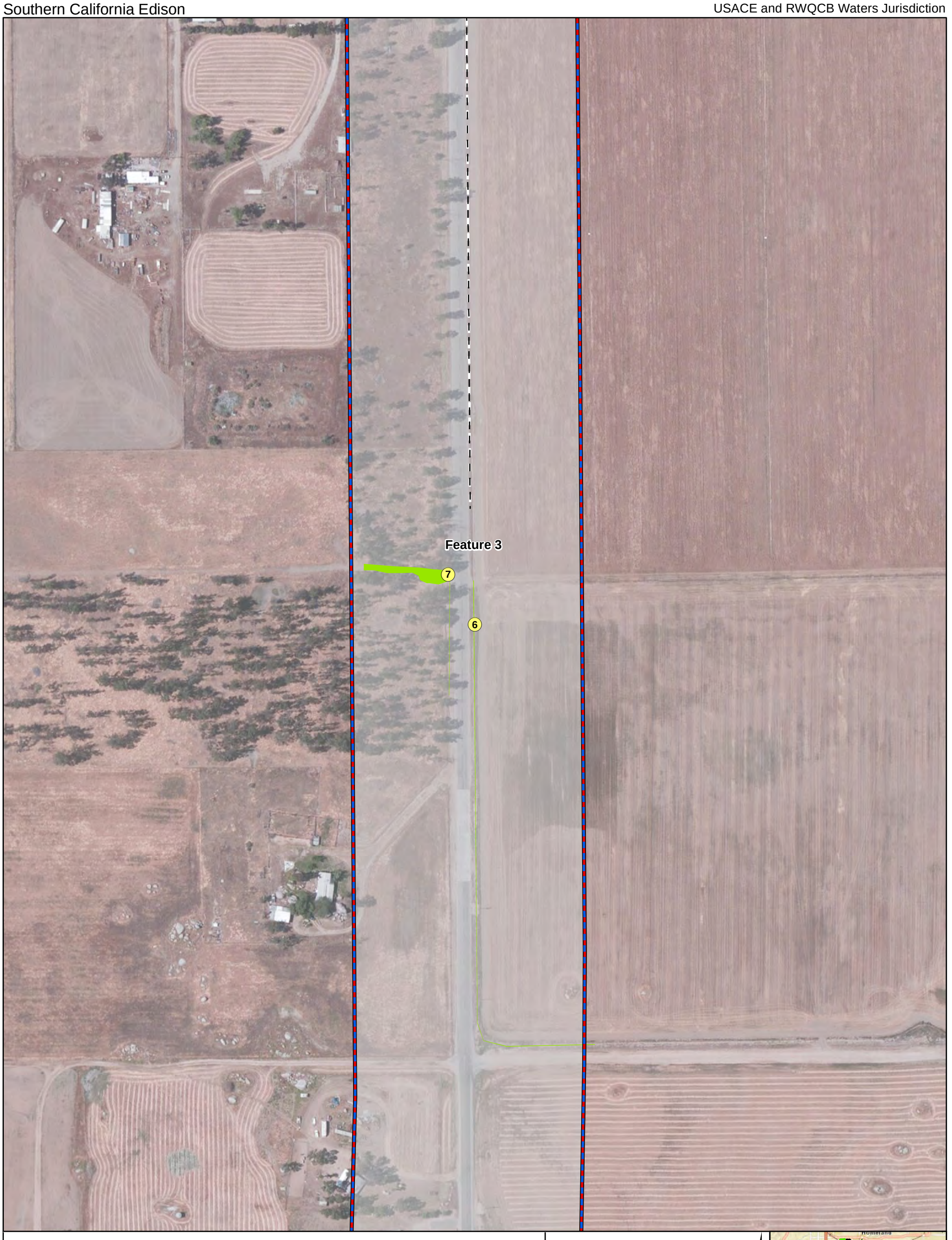


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (6 of 25)

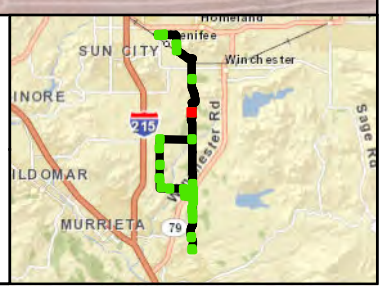
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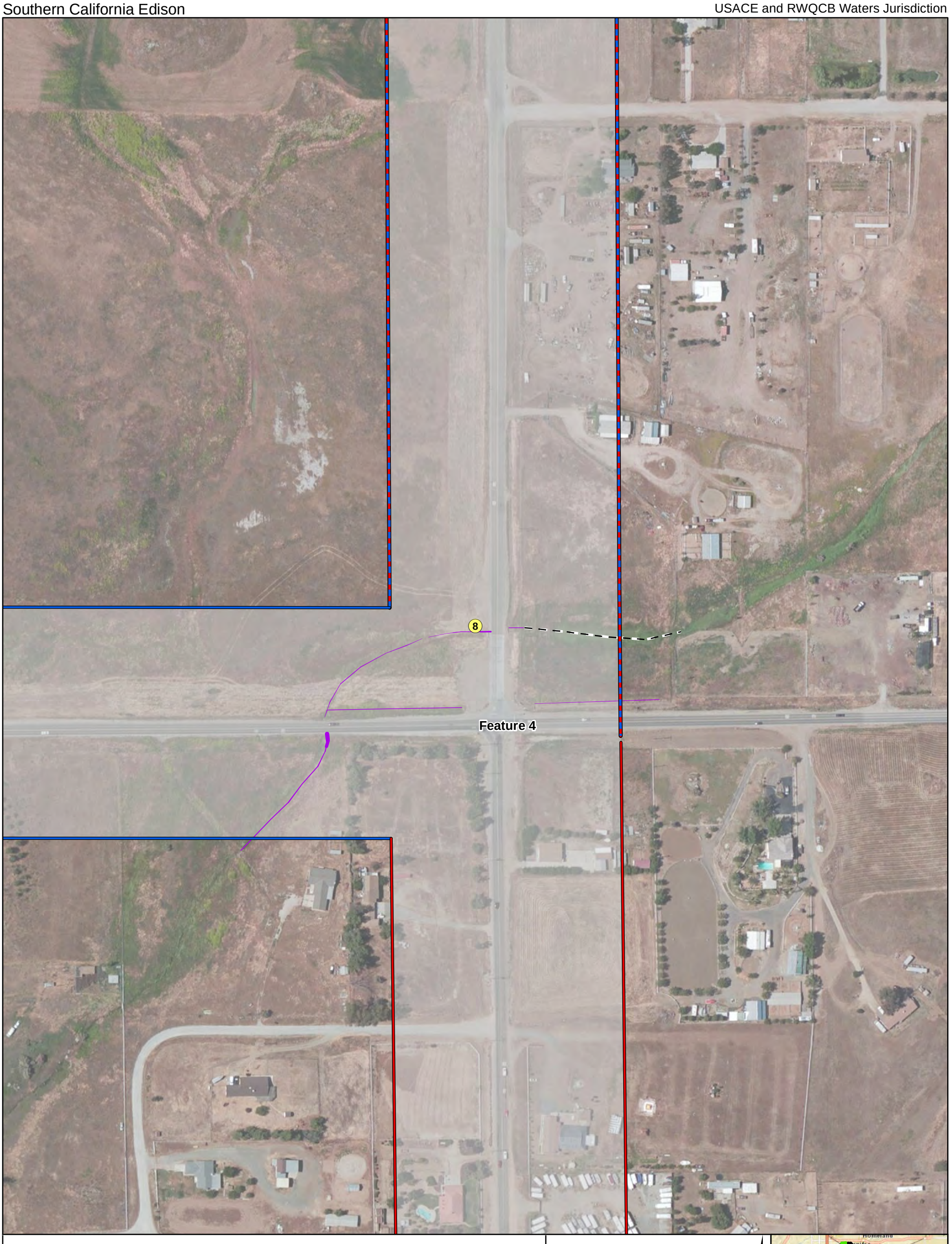


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (7 of 25)

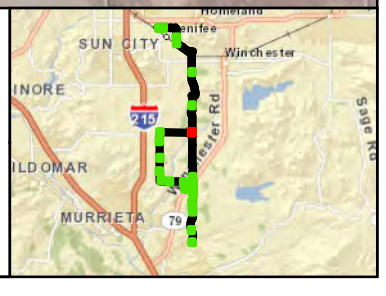
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Aerial Image:
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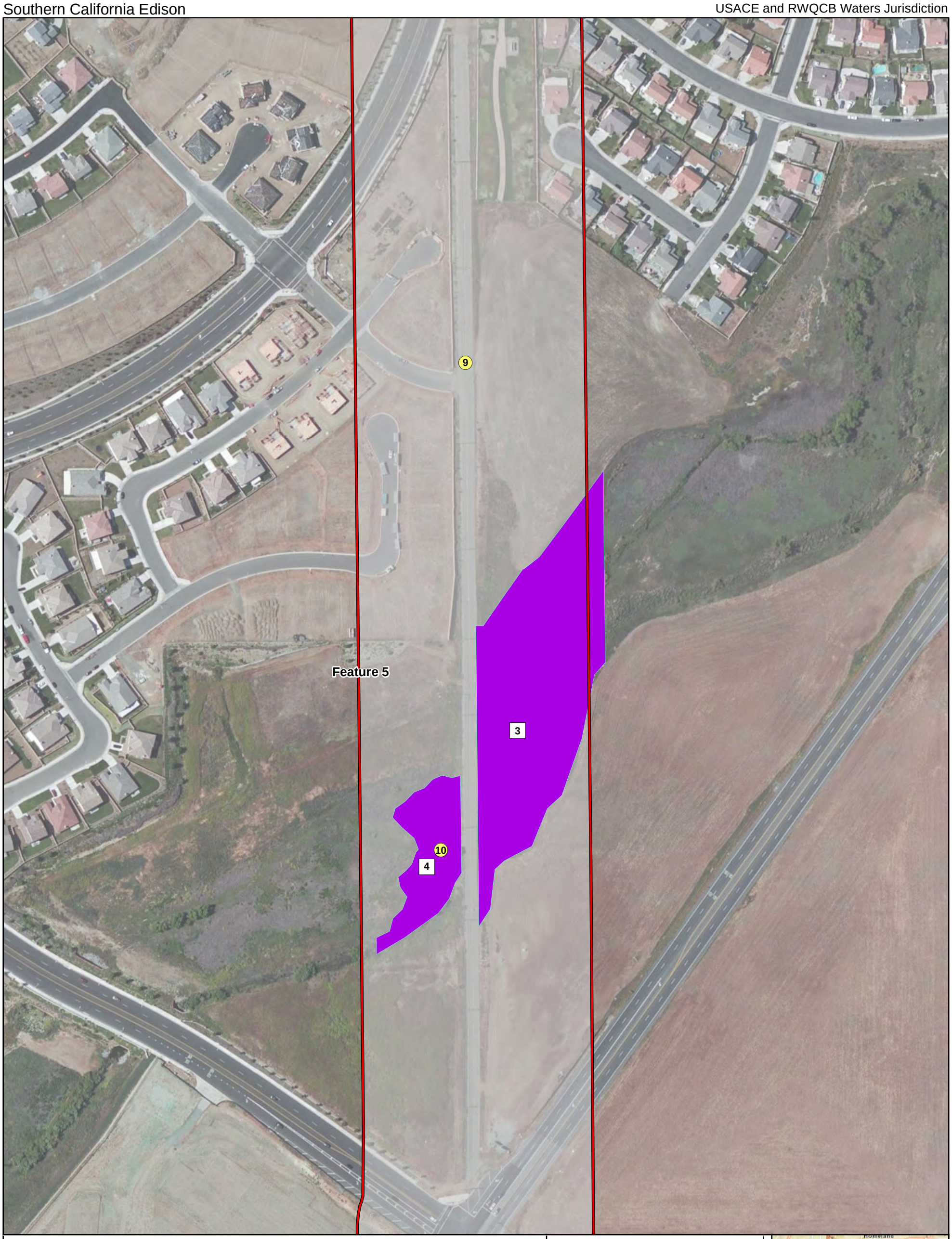


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (8 of 25)

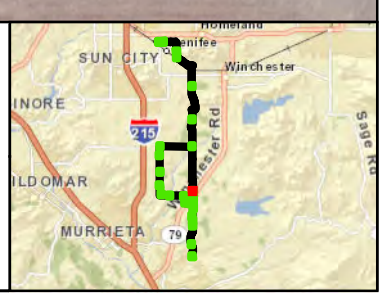
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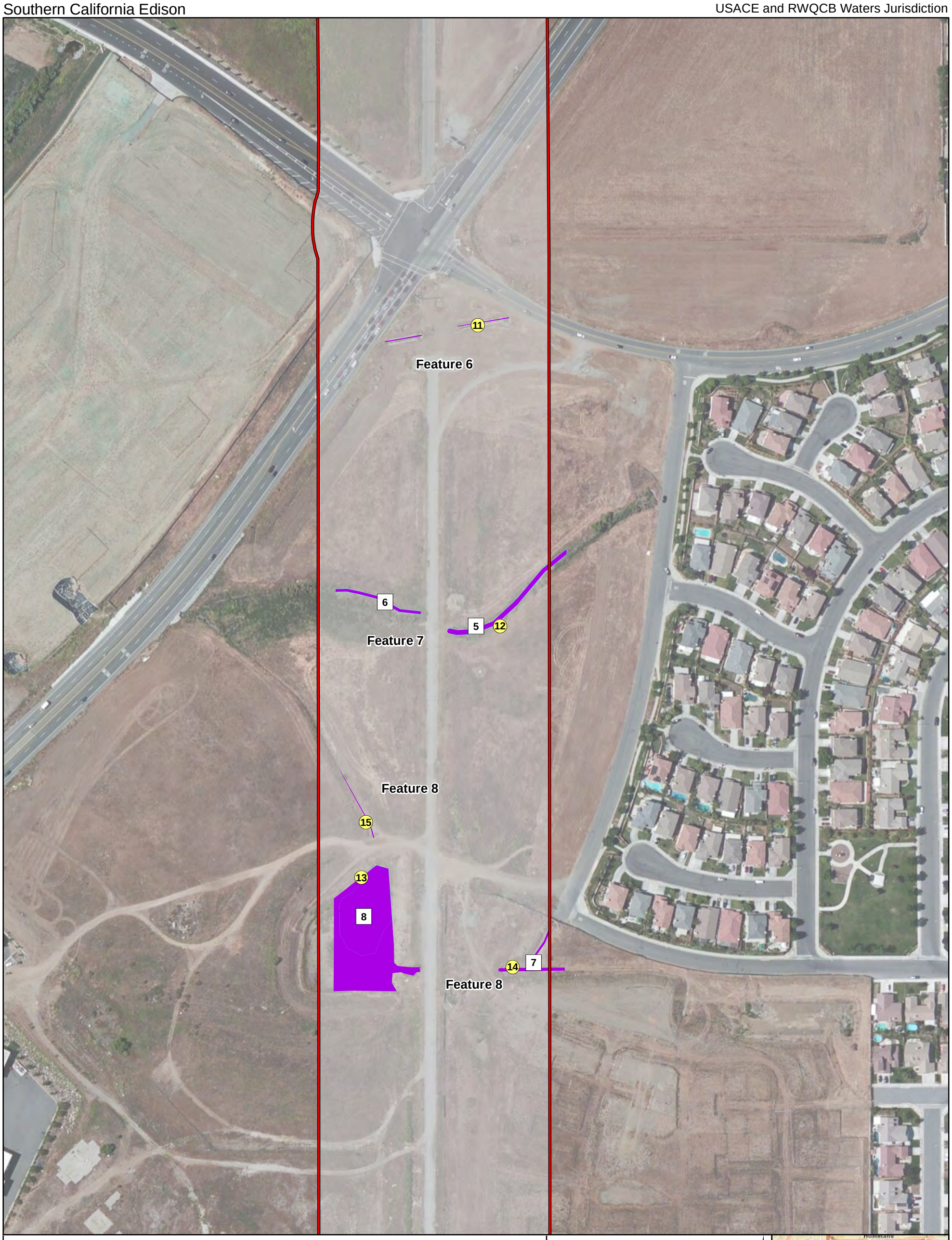


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (9 of 25)

Sources:
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TRC 2013;
Riverside County, 2014;
Aerial Image:
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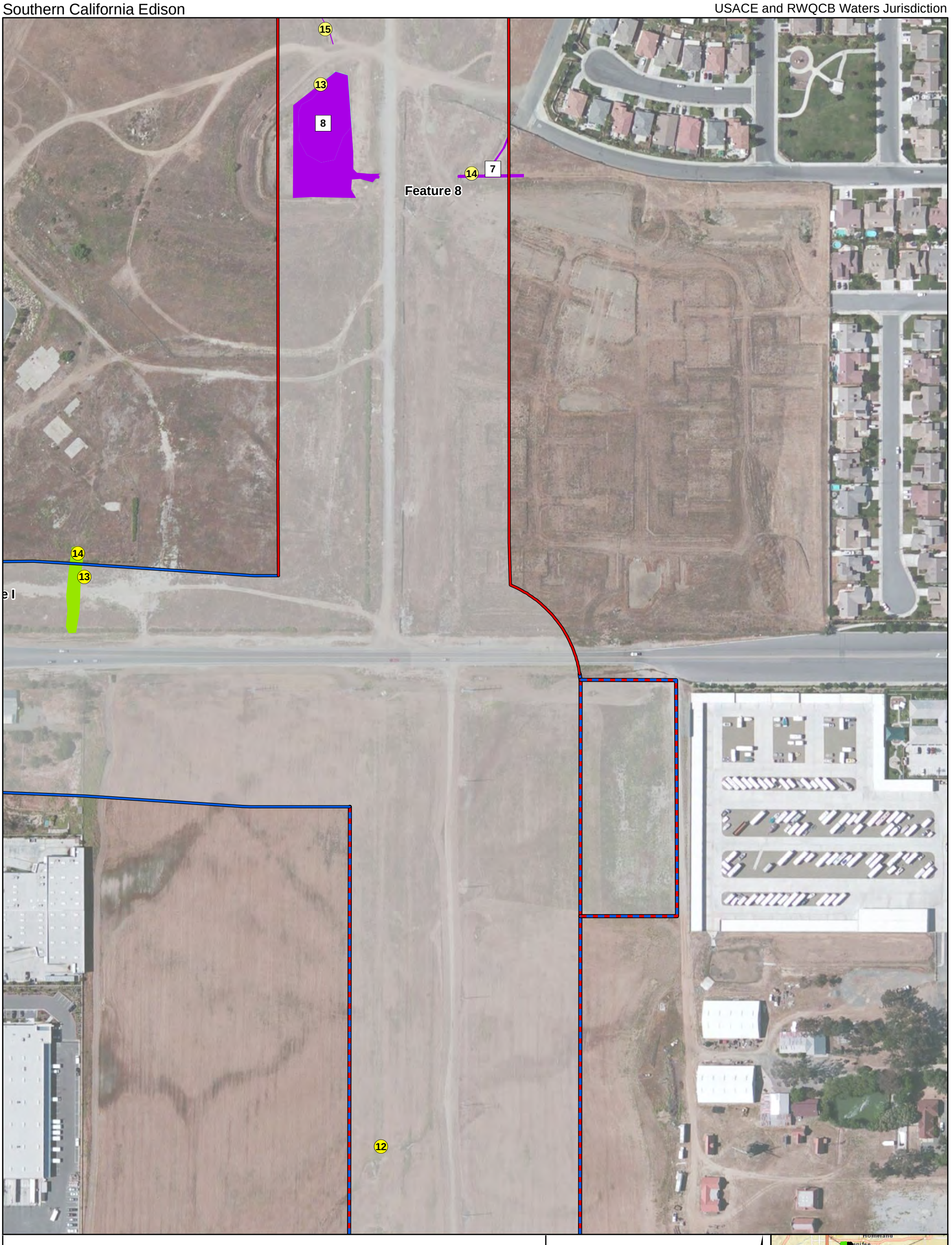


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (10 of 25)

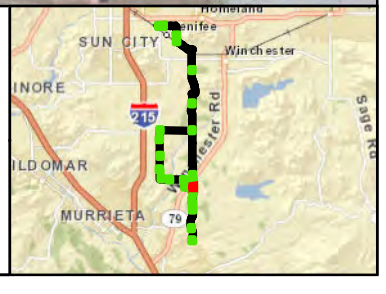
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Aerial Image:
Esri, 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (11 of 25)

Sources:
SCE 2008, 2014;
TRC 2013;
Riverside County, 2014;
Aerial Image:
Esri, 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (12 of 25)

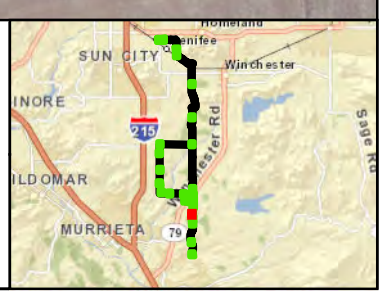
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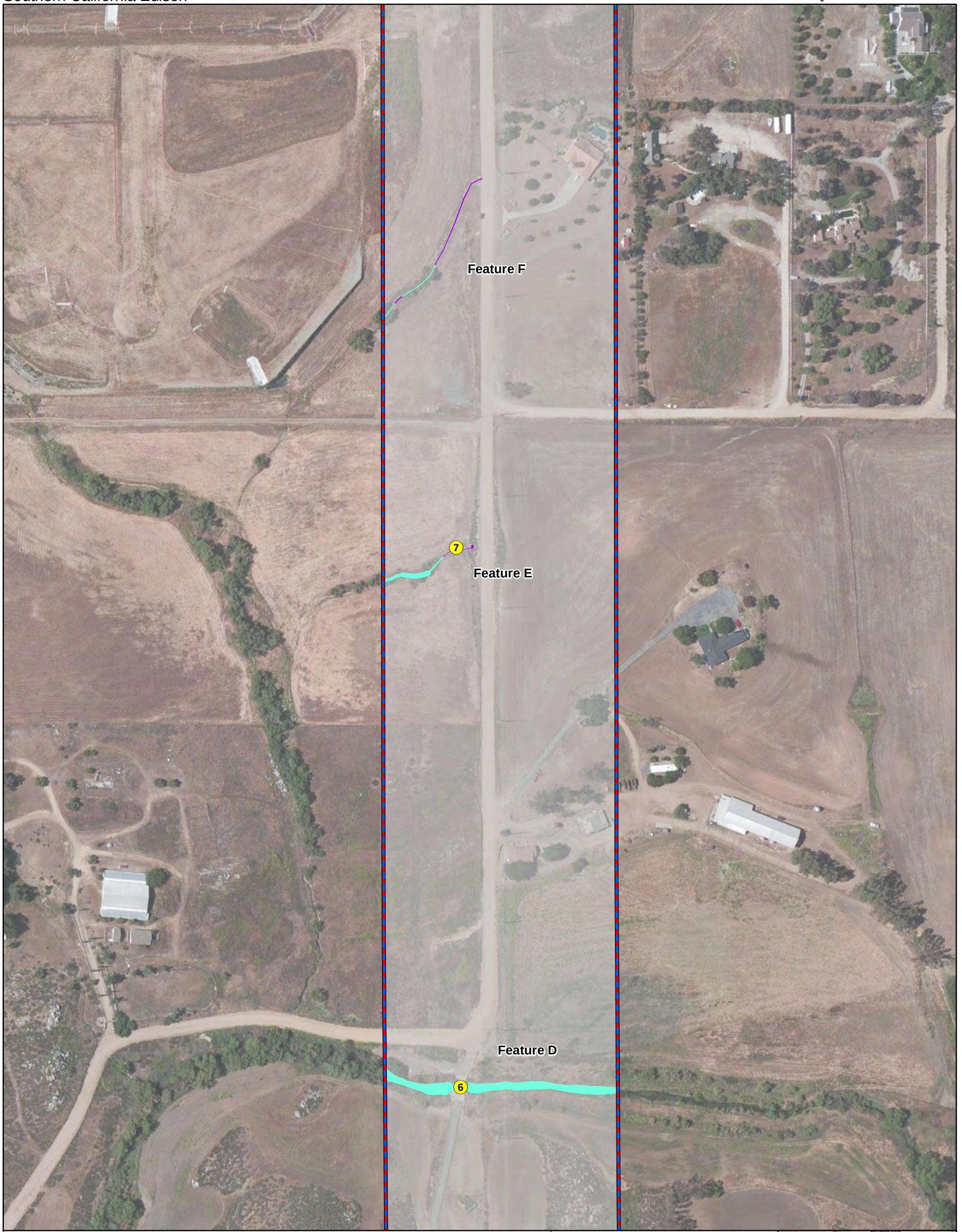


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (13 of 25)

Sources:
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TRC 2013;
Riverside County, 2014;
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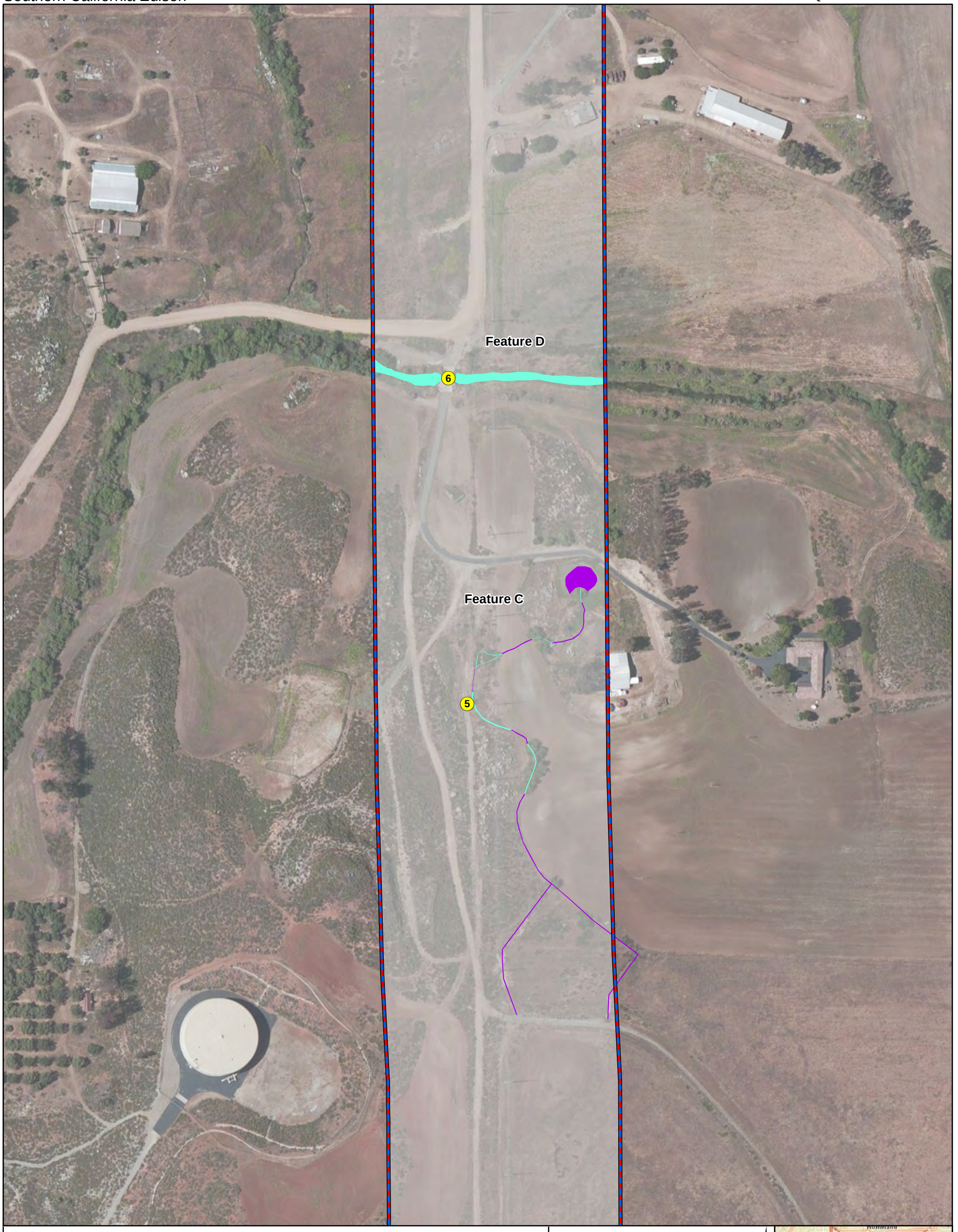


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (14 of 25)

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TRC 2013;
Riverside County, 2014;
Aerial Image:
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (15 of 25)

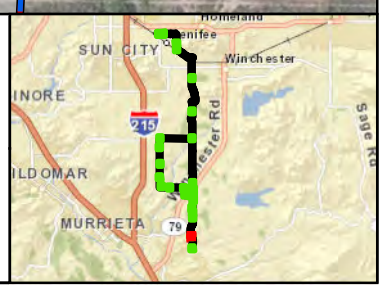
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An EDISON INTERNATIONAL Company

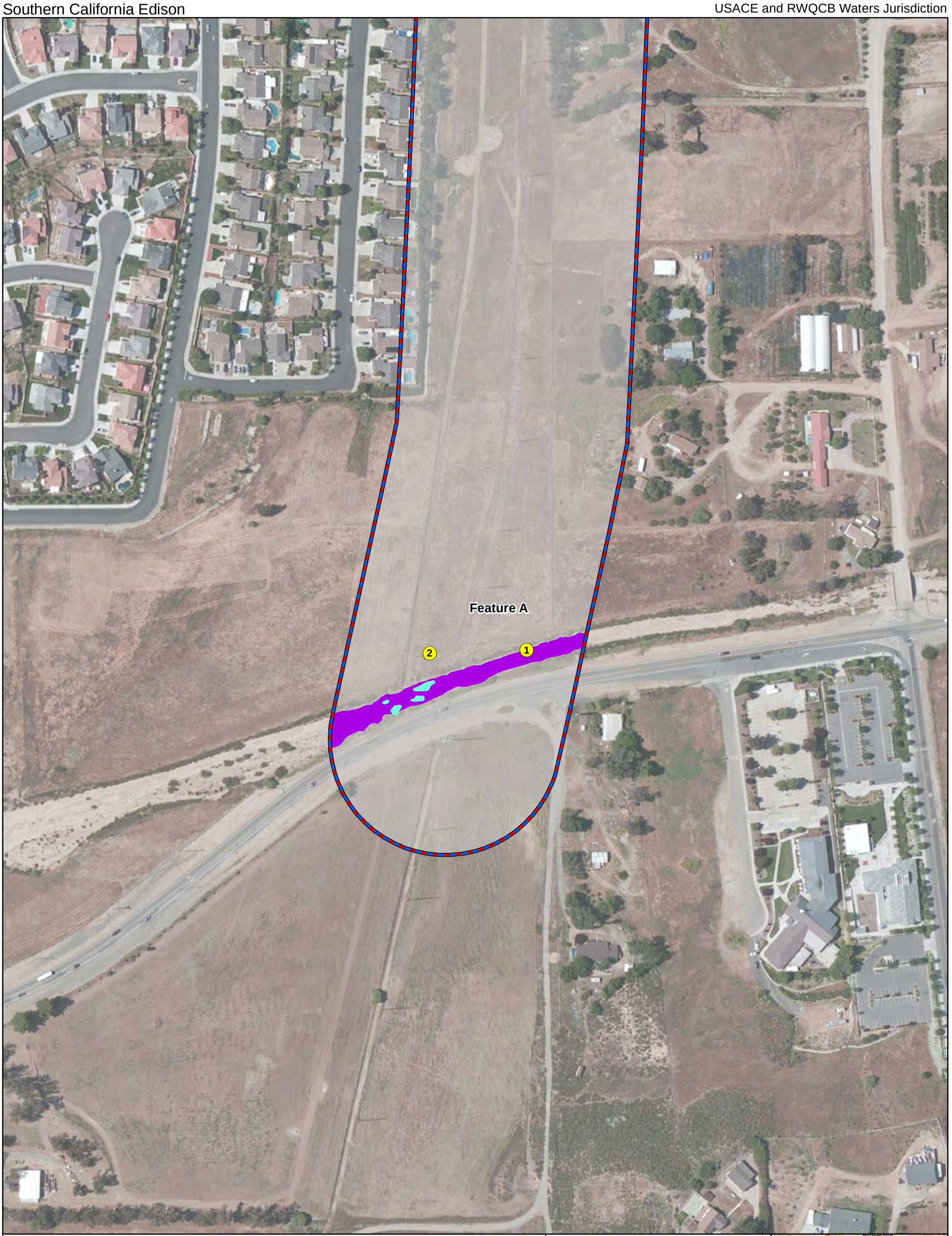


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (16 of 25)

Sources:
SCE 2008, 2014;
TRC 2013;
Riverside County, 2014;
Aerial Image:
Esri, 2014

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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (17 of 25)

Sources:
SCE 2008, 2014;
TRC 2013;
Riverside County, 2014;
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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

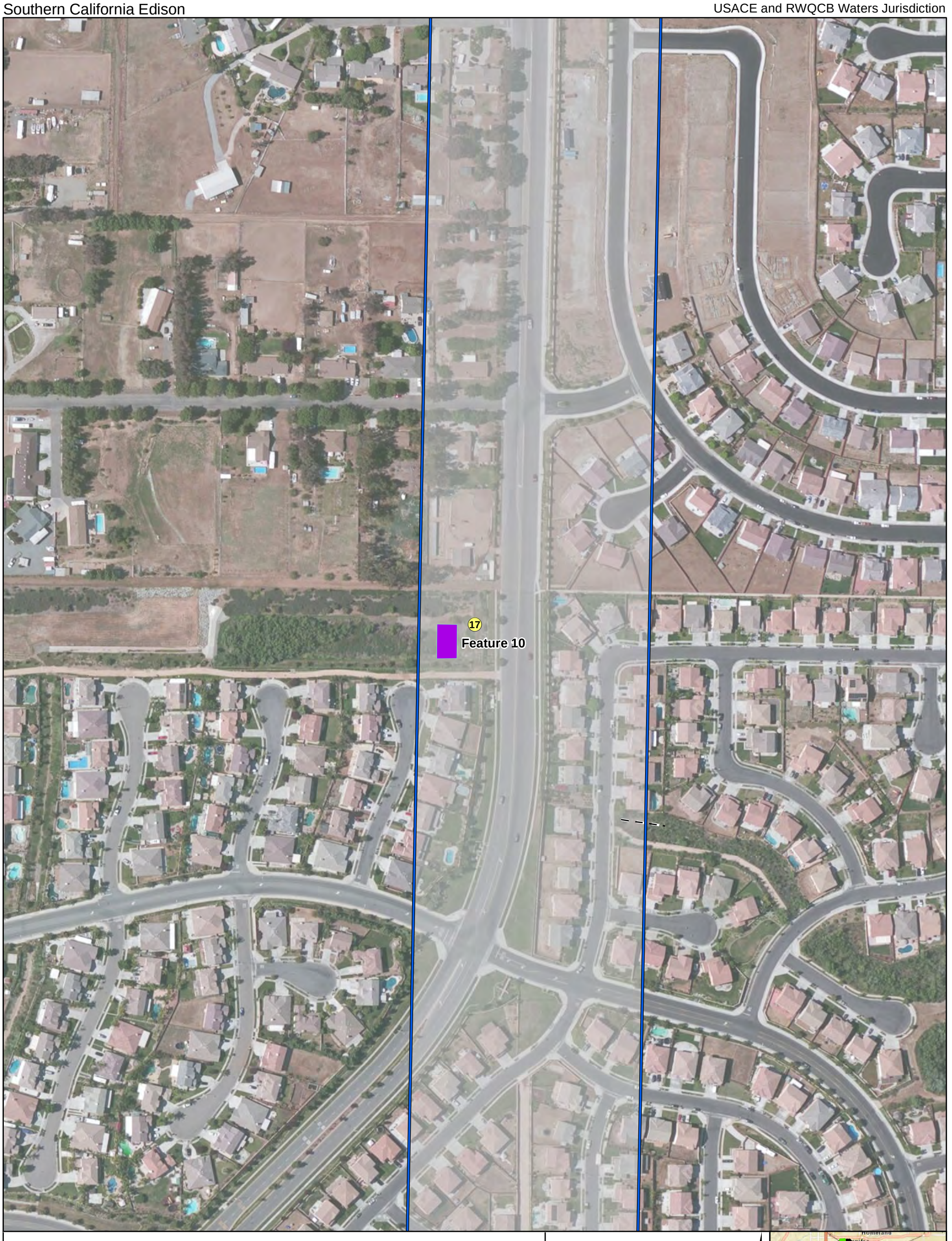


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (18 of 25)

Sources:
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TRC 2013;
Riverside County, 2014;
Aerial Image:
Esri, 2014

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11/7/2014

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (19 of 25)

Sources:
SCE 2008, 2014;
TRC 2013;
Riverside County, 2014;
Aerial Image:
Esri, 2014

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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

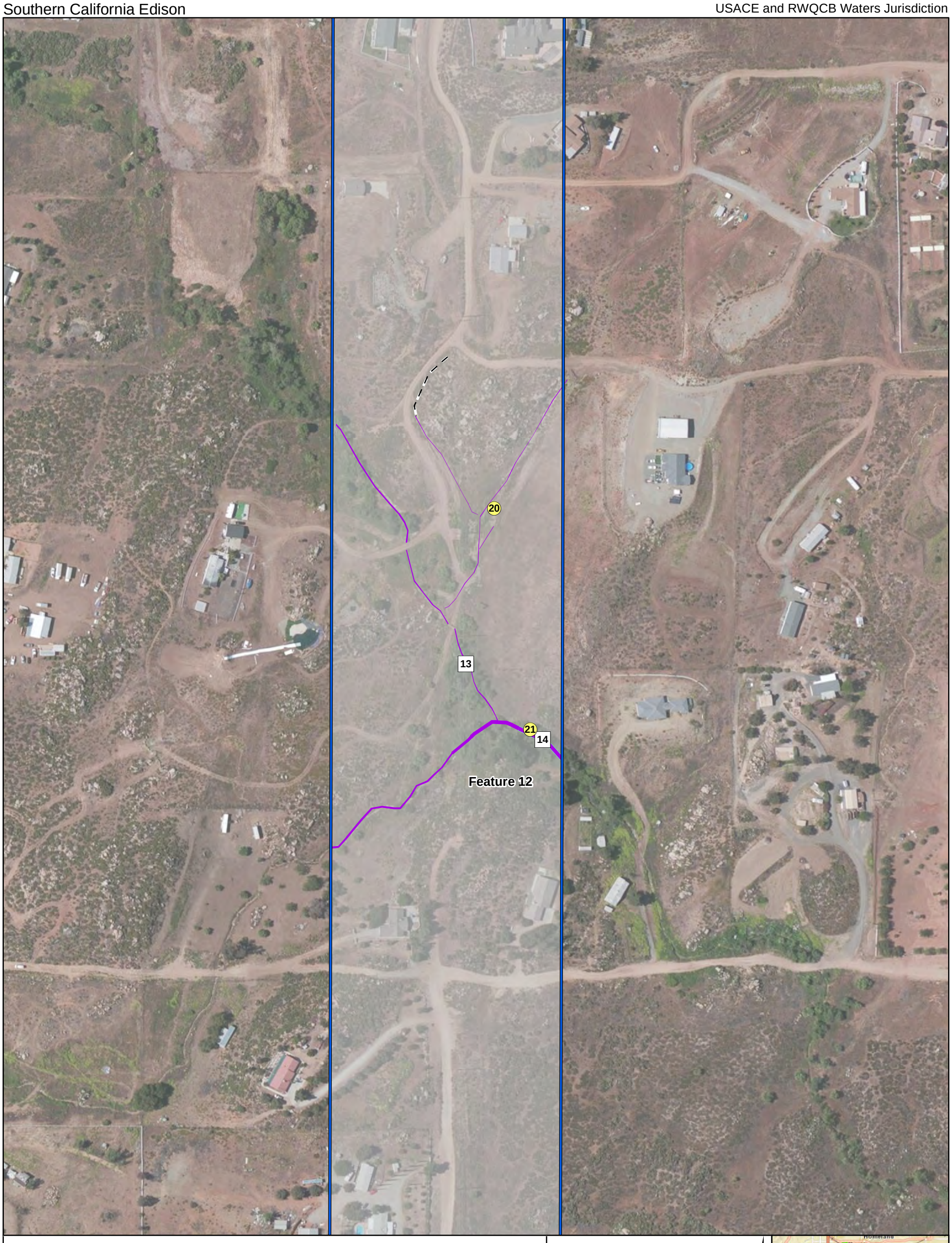


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Area

Alternative Project

- Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

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- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

- RWQCB and CDFW Jurisdiction
- RWQCB Only Wetland

- Areas of Non Jurisdiction
- Photo Locations
- Wetland Pit

Sheet (20 of 25)

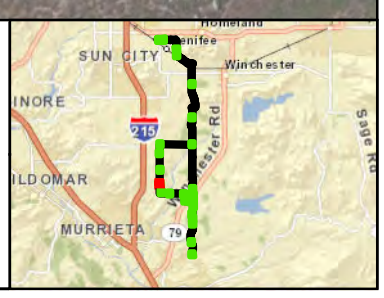
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TRC 2013;
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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

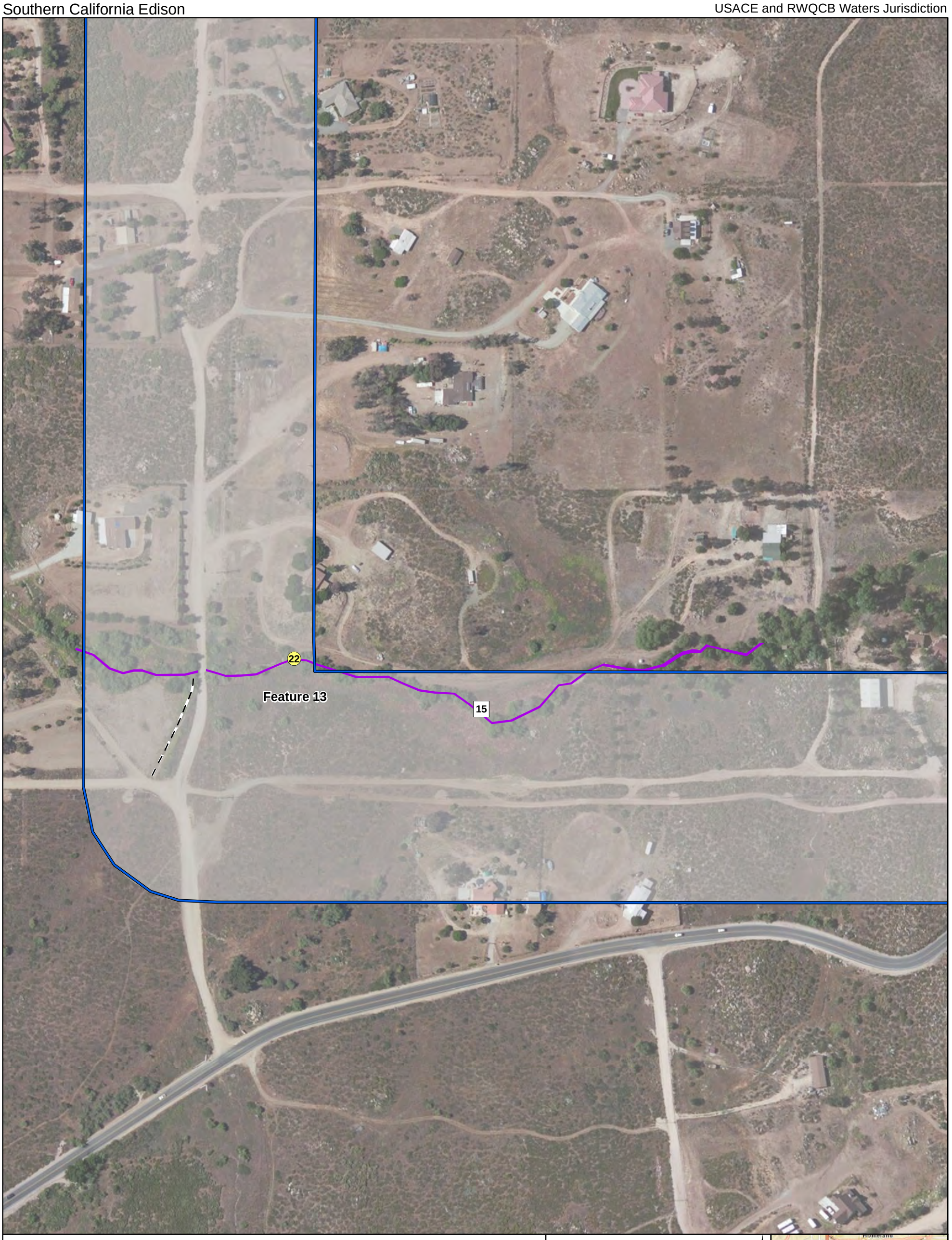


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

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RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (21 of 25)

Sources:
SCE 2008, 2014;
TRC 2013;
Riverside County, 2014;
Aerial Image:
Esri, 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (22 of 25)

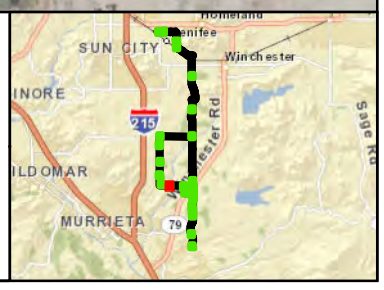
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SCE 2008, 2014;
TRC 2013;
Riverside County, 2014;
Aerial Image:
Esri, 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (23 of 25)

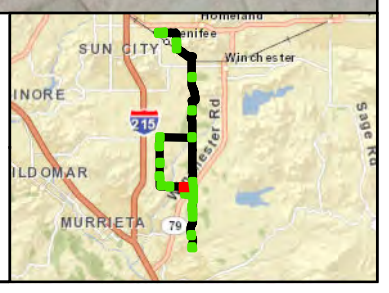
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Aerial Image:
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Common to Both Study Area

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

RWQCB and CDFW Jurisdiction

RWQCB Only Wetland

Areas of Non Jurisdiction

Photo Locations

Wetland Pit

Sheet (24 of 25)

Sources:
SCE 2008, 2014;
TRC 2013;
Riverside County, 2014;
Aerial Image:
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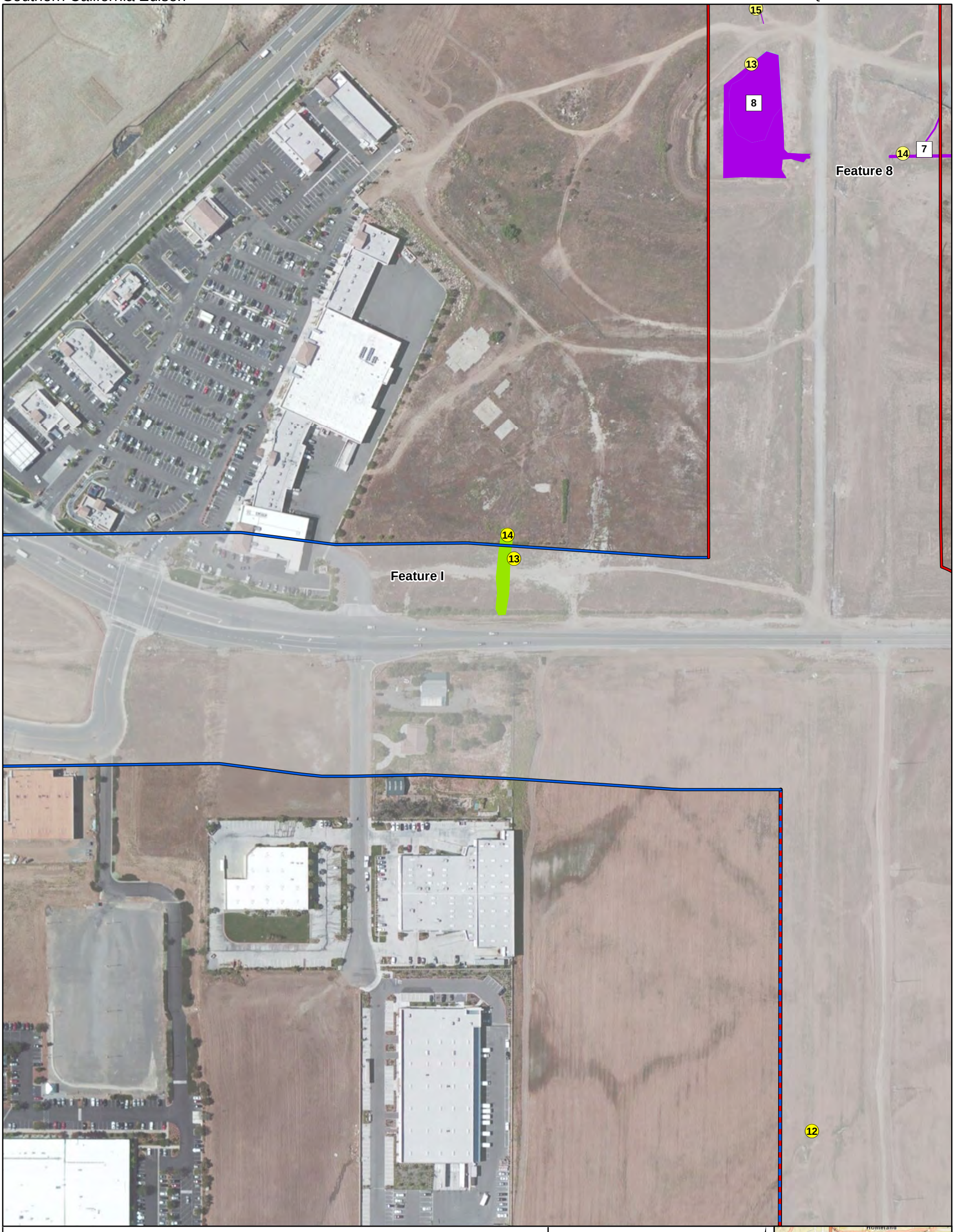


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-5

Southern California Edison

USACE and RWQCB Waters Jurisdiction



Proposed Project

- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Area

Alternative Project

- Alternative 115 kV Subtransmission Line Study Area

USACE Jurisdictional

- USACE Waters (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdictional

- RWQCB and CDFW Jurisdiction
- RWQCB Only Wetland

- Areas of Non Jurisdiction
- Photo Locations
- Wetland Pit

Sheet (25 of 25)

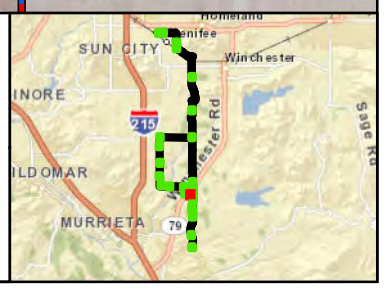
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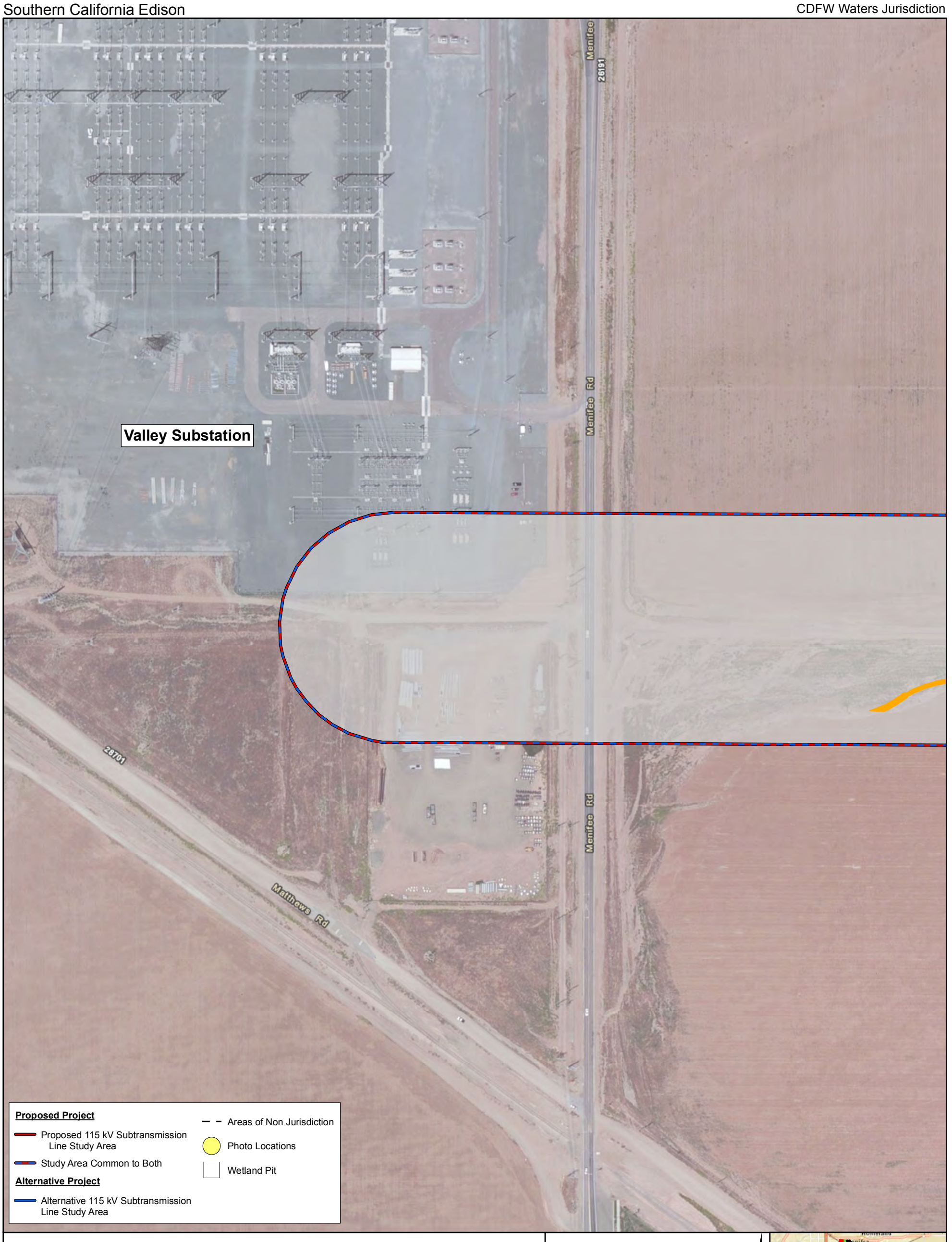
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (1 of 25)

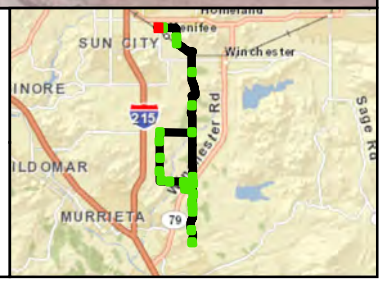
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AECOM 2014
Riverside County 2014
Esri 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
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- CDFW Wetland Water

USACE Jurisdiction

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- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (2 of 25)

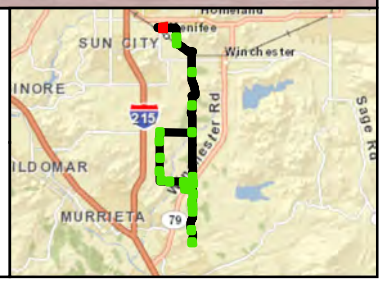
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
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- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

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- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (3 of 25)

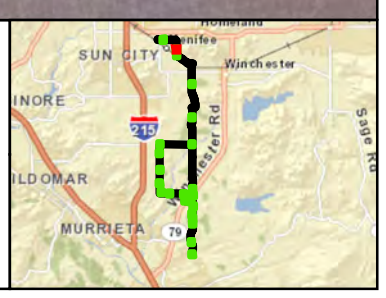
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Esri 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
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USACE Jurisdiction

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- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (4 of 25)

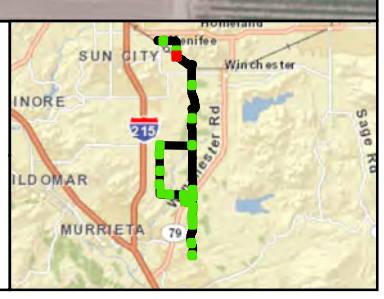
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Riverside County 2014
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
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- CDFW Wetland Water

USACE Jurisdiction

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- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (5 of 25)

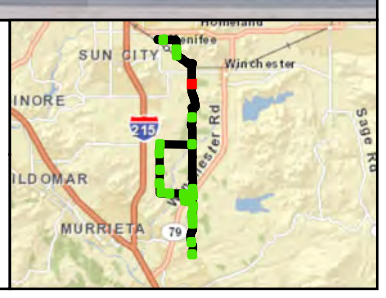
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AECOM 2014
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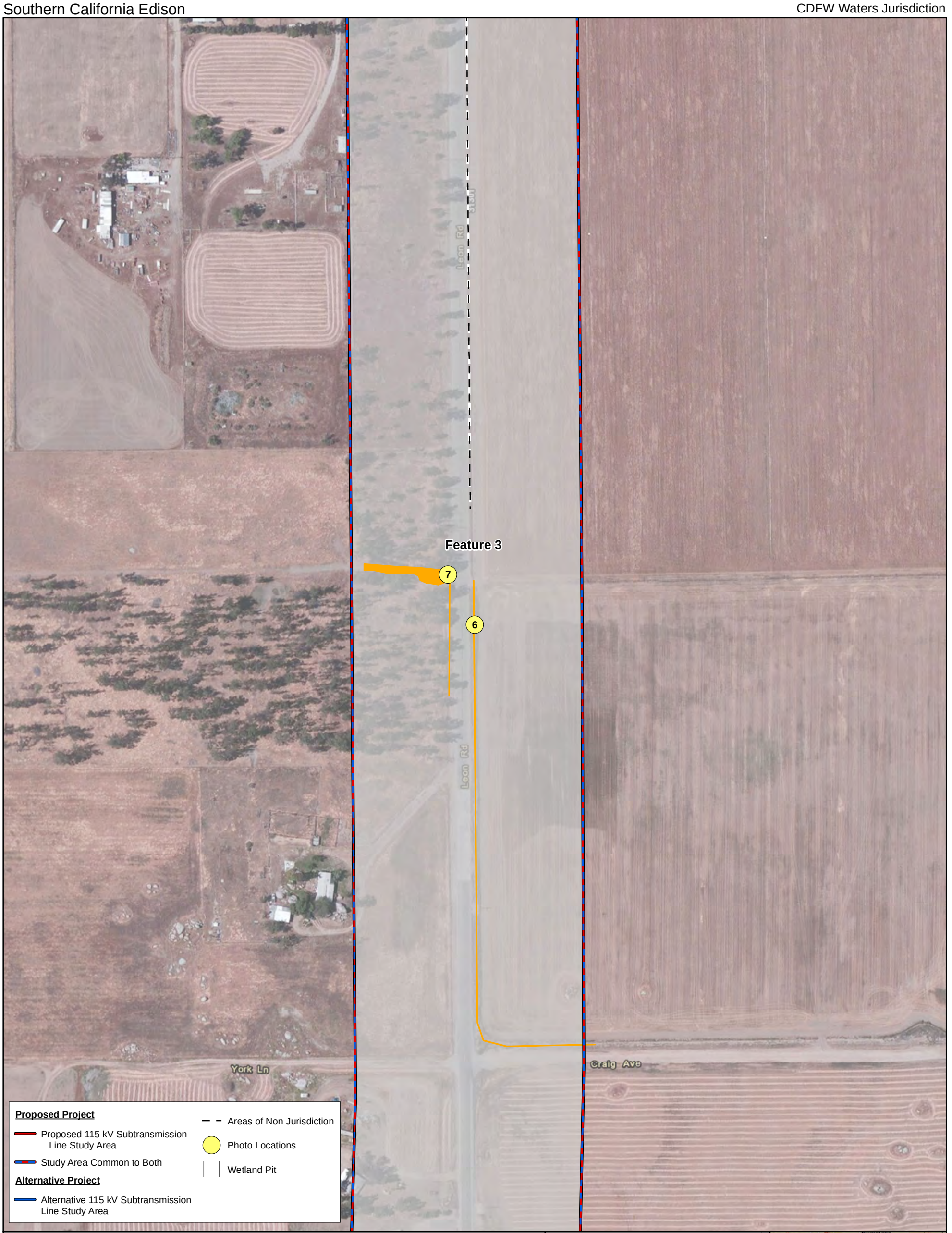


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
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- CDFW Wetland Water

USACE Jurisdiction

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- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (6 of 25)

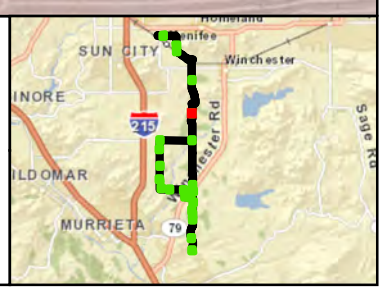
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TRC 2013
AECOM 2014
Riverside County 2014
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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

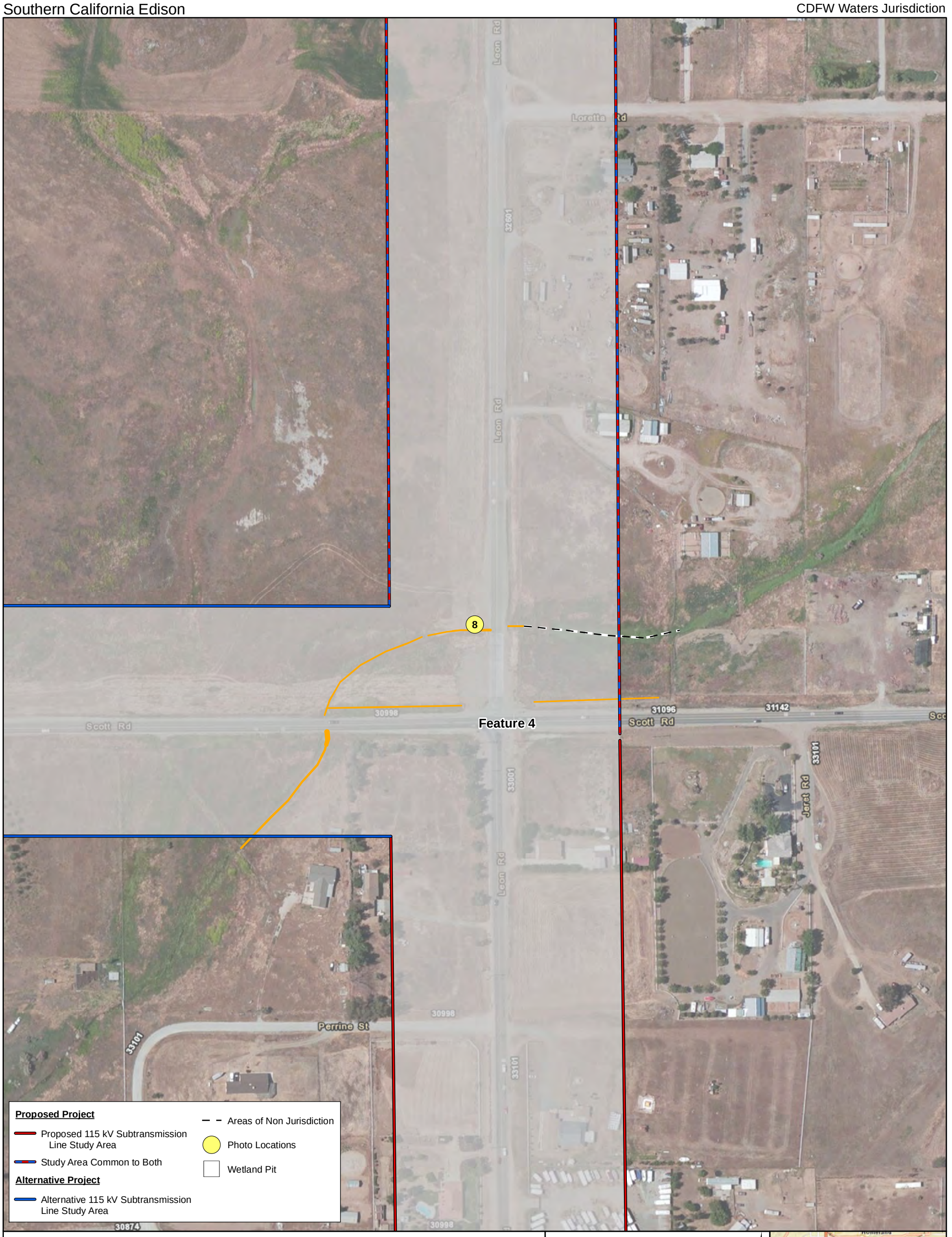


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
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- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

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- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (7 of 25)

Sources:
SCE 2014
TRC 2013
AECOM 2014
Riverside County 2014
Esri 2014

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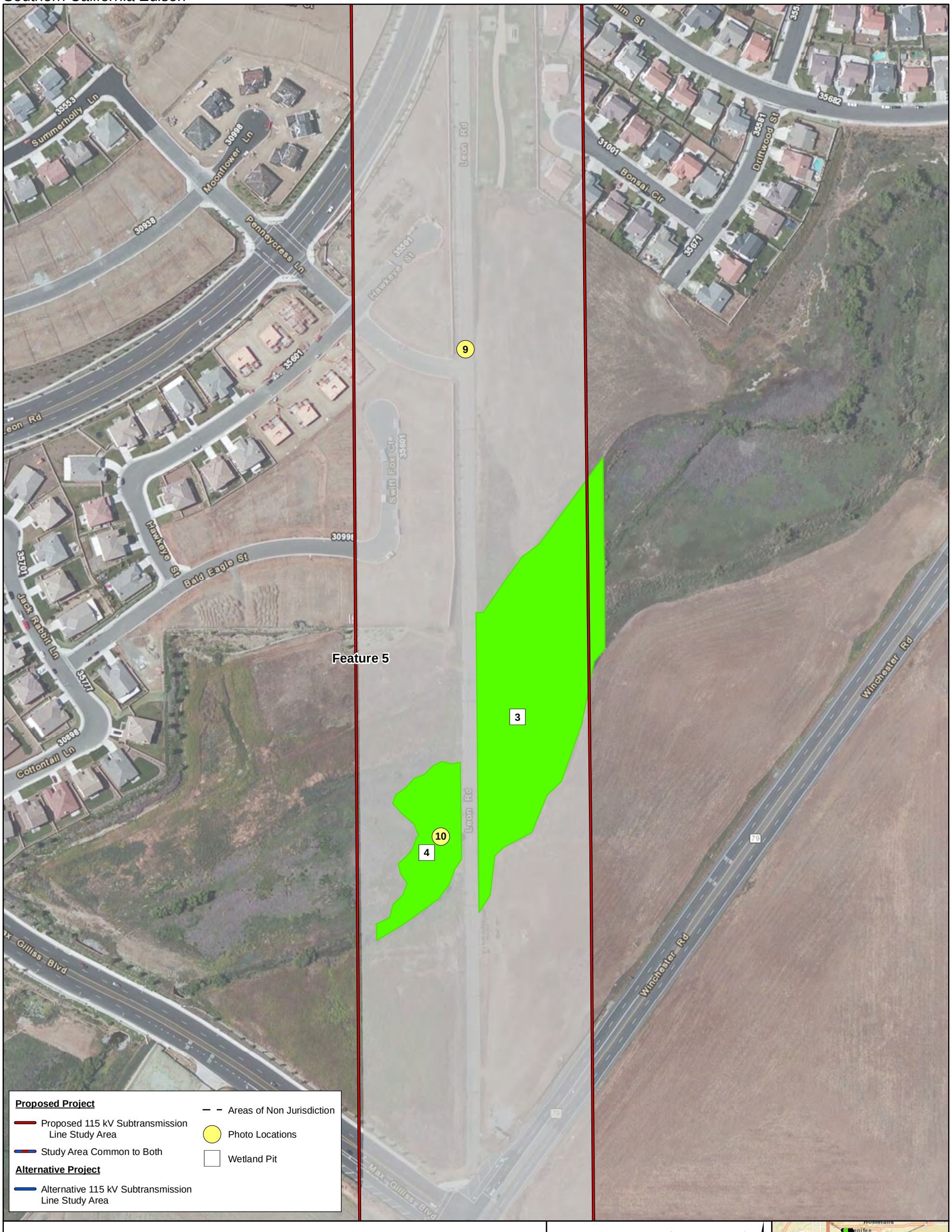


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (8 of 25)

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SCE 2014
TRC 2013
AECOM 2014
Riverside County 2014
Esri 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (9 of 25)

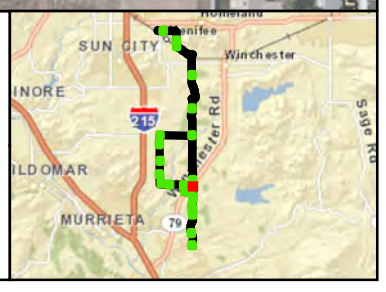
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AECOM 2014
Riverside County 2014
Esri 2014

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SOUTHERN CALIFORNIA EDISON
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
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- CDFW Wetland Water

USACE Jurisdiction

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- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (10 of 25)

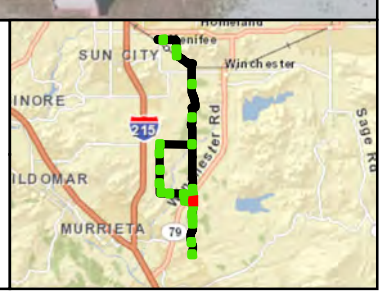
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AECOM 2014
Riverside County 2014
Esri 2014

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SOUTHERN CALIFORNIA EDISON
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (11 of 25)

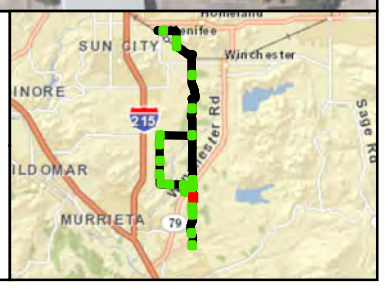
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AECOM 2014
Riverside County 2014
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SOUTHERN CALIFORNIA EDISON
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
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- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (12 of 25)

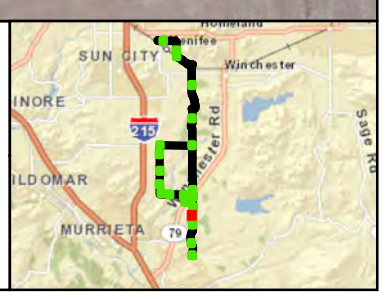
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SOUTHERN CALIFORNIA EDISON
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (13 of 25)

Sources:
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TRC 2013
AECOM 2014
Riverside County 2014
Esri 2014

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SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

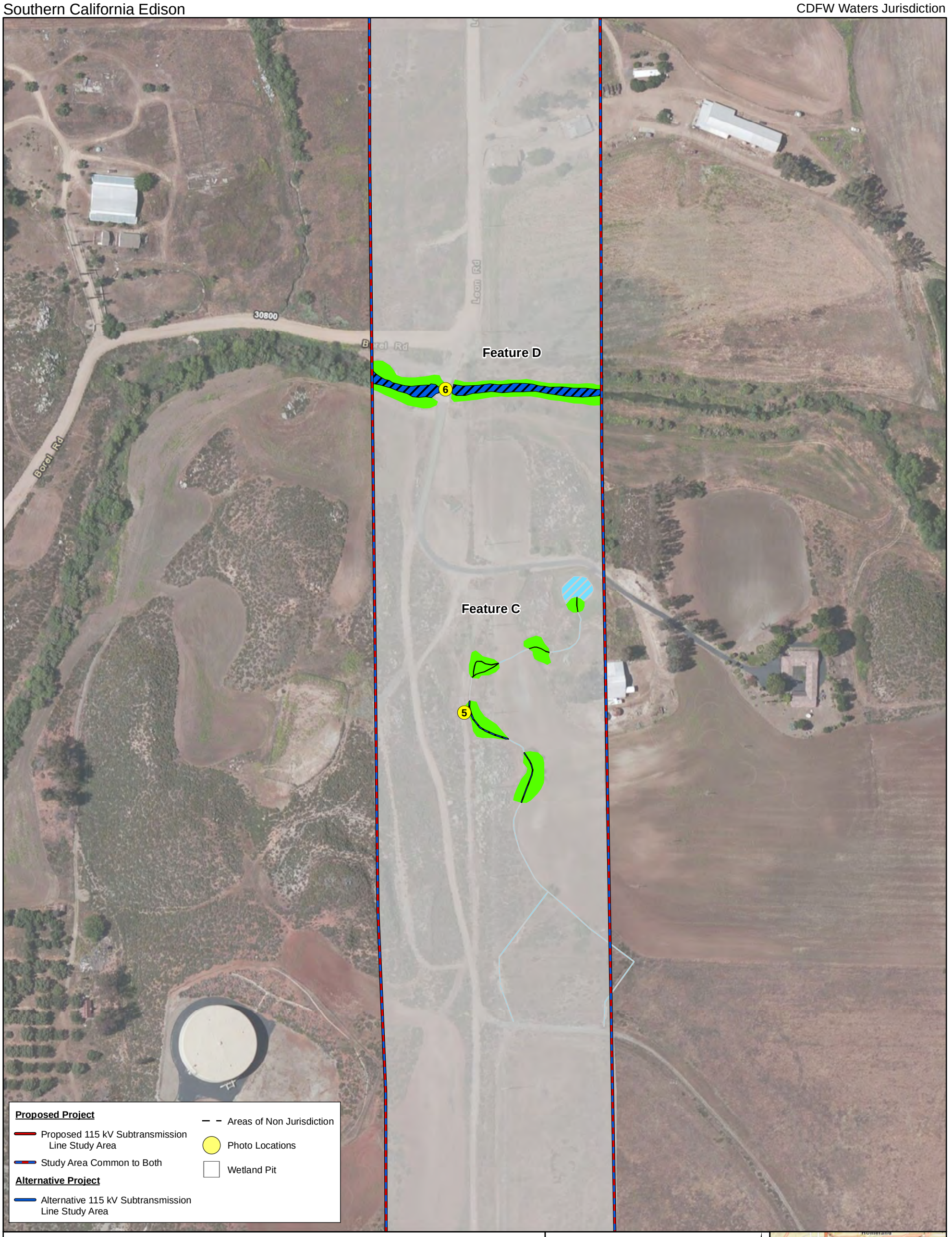


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
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- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (14 of 25)

Sources:
SCE 2014
TRC 2013
AECOM 2014
Riverside County 2014
Esri 2014

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SOUTHERN CALIFORNIA EDISON
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
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- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (15 of 25)

Sources:
SCE 2014
TRC 2013
AECOM 2014
Riverside County 2014
Esri 2014

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SOUTHERN CALIFORNIA EDISON
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (16 of 25)

Sources:
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TRC 2013
AECOM 2014
Riverside County 2014
Esri 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-6**

Southern California Edison CDFW Waters Jurisdiction



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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (18 of 25)

Sources:
SCE 2014
TRC 2013
AECOM 2014
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SOUTHERN CALIFORNIA EDISON
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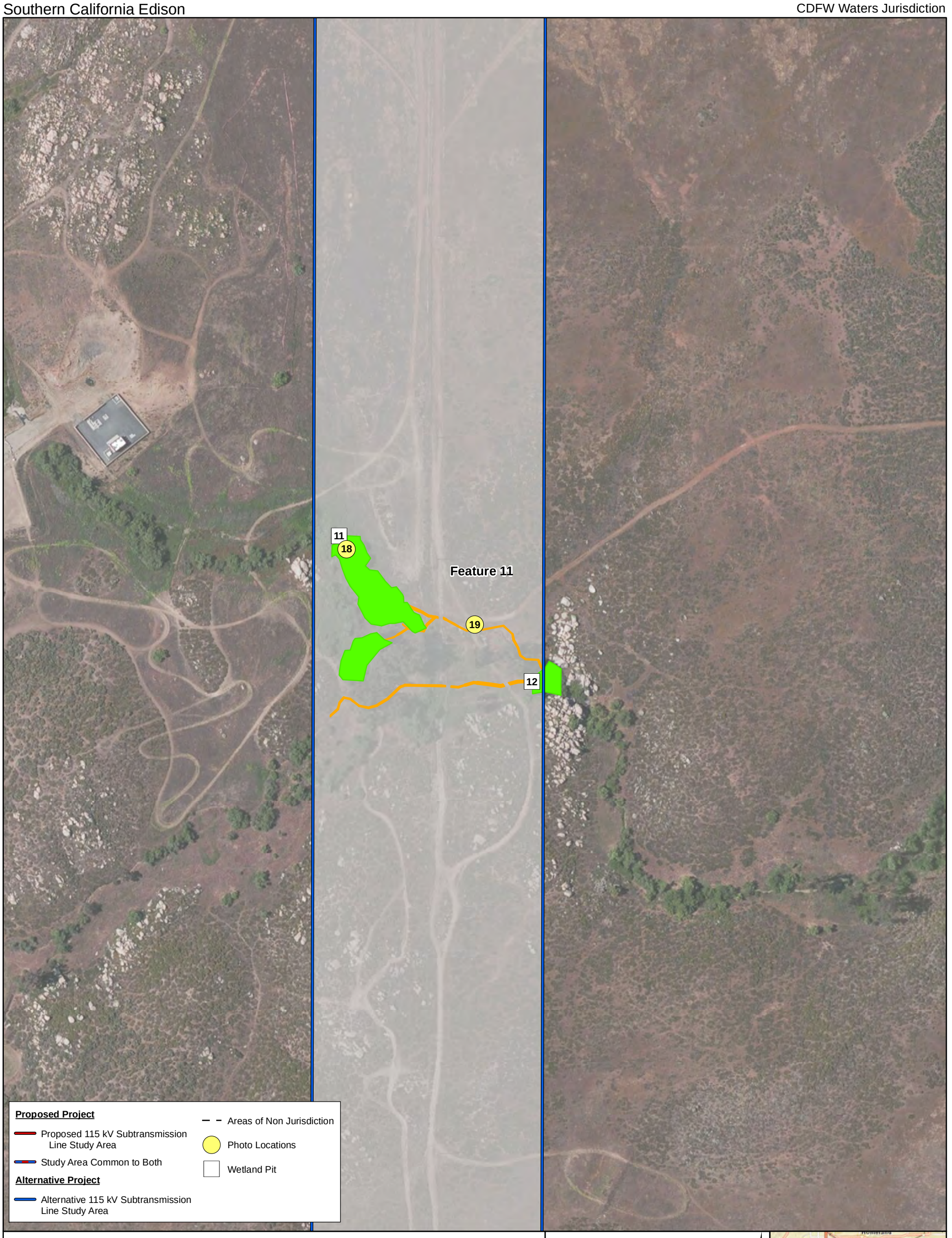


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (19 of 25)

Sources:
SCE 2014
TRC 2013
AECOM 2014
Riverside County 2014
Esri 2014

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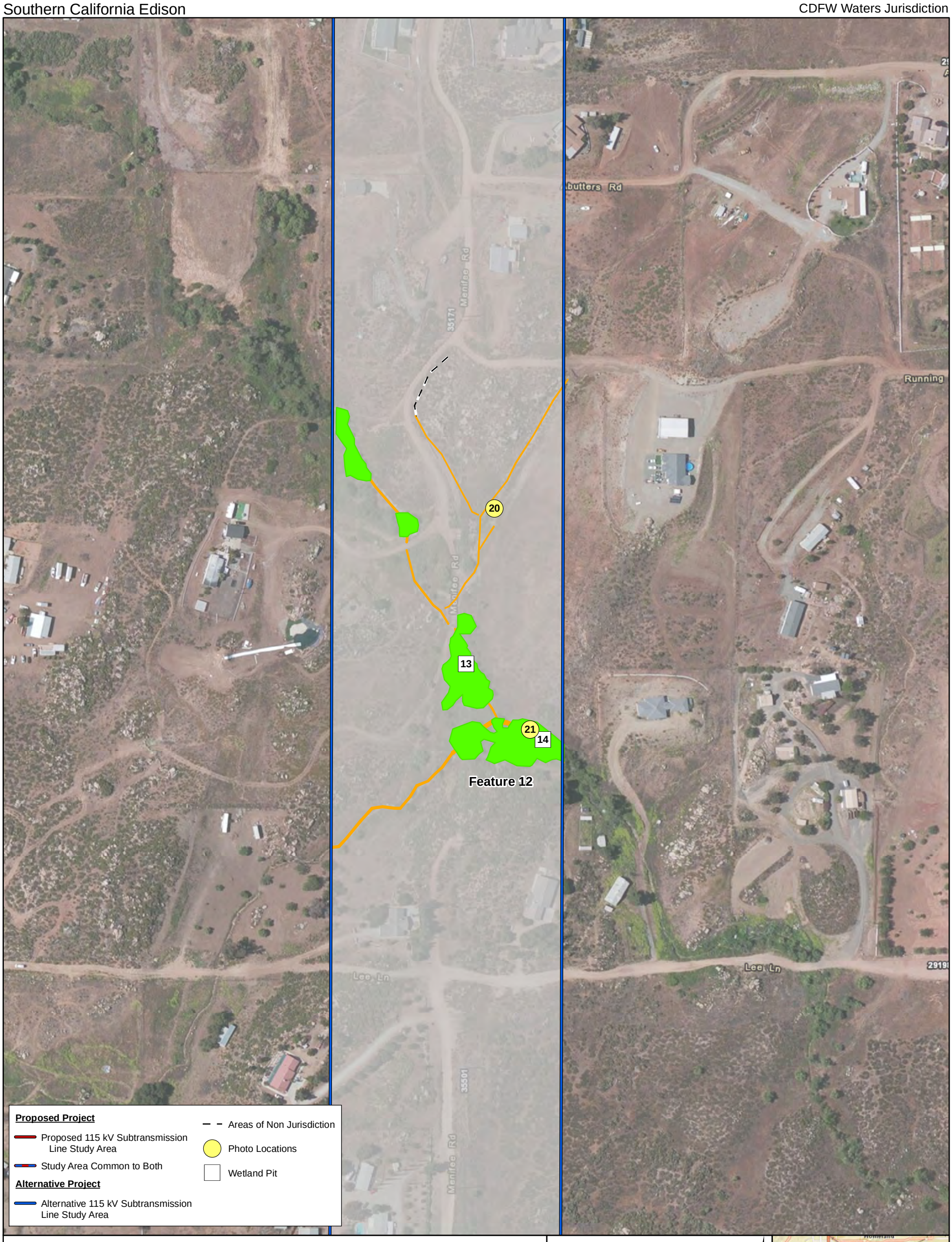


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (20 of 25)

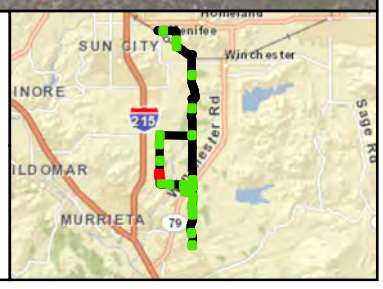
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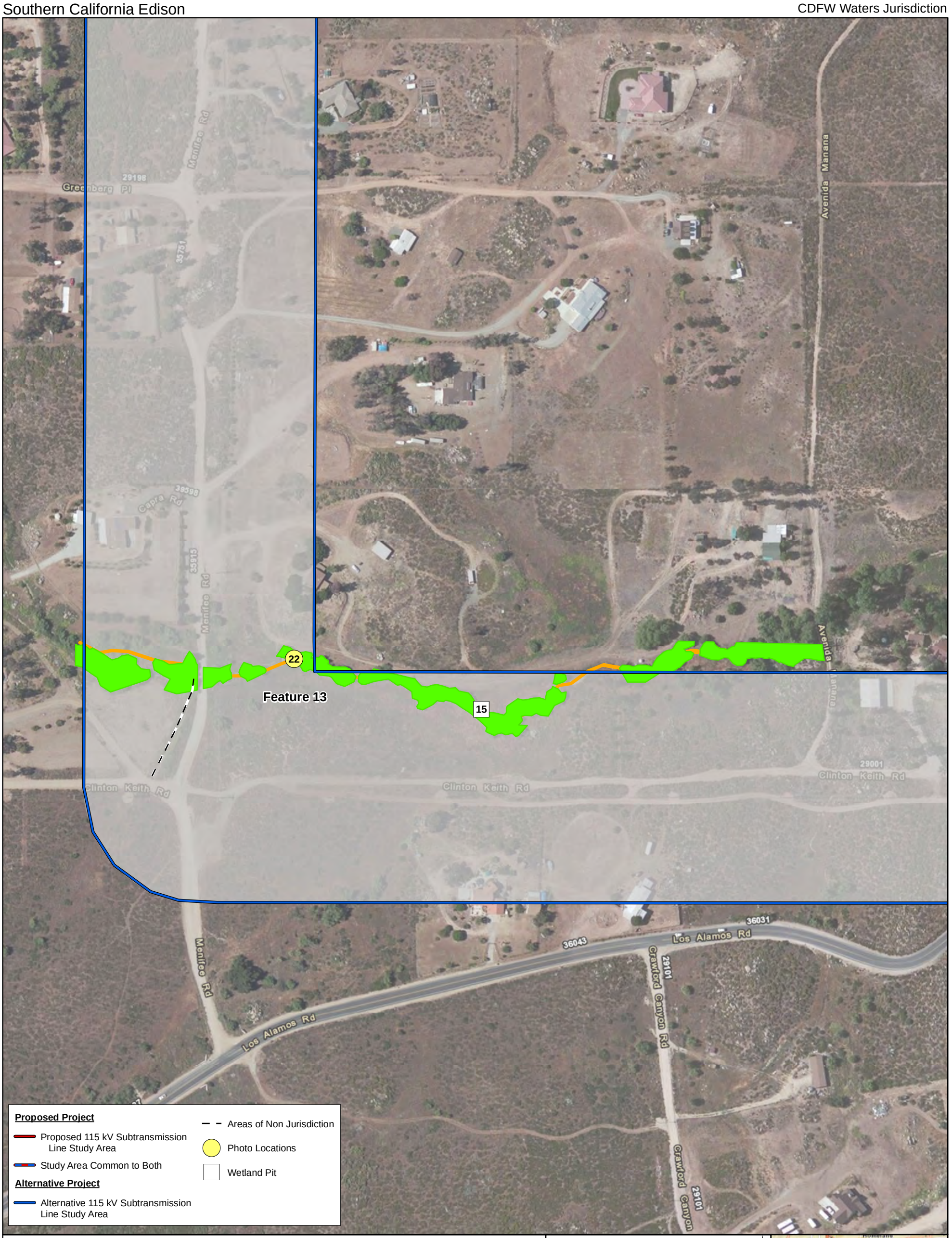


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-6**

Southern California Edison CDFW Waters Jurisdiction



Proposed Project

Proposed 115 kV Subtransmission Line Study Area

Study Area Common to Both

Alternative Project

Alternative 115 kV Subtransmission Line Study Area

CDFW Jurisdiction

CDFW Unvegetated

CDFW Nonwetland Water

CDFW Riparian

CDFW Top of Bank

CDFW Wetland Water

USACE Jurisdiction

USACE Water (USACE, RWQCB, and CDFW Jurisdiction)

USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

RWQCB and CDFW Jurisdiction

Sheet (22 of 25)

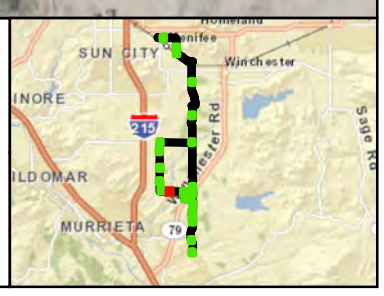
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Esri 2014

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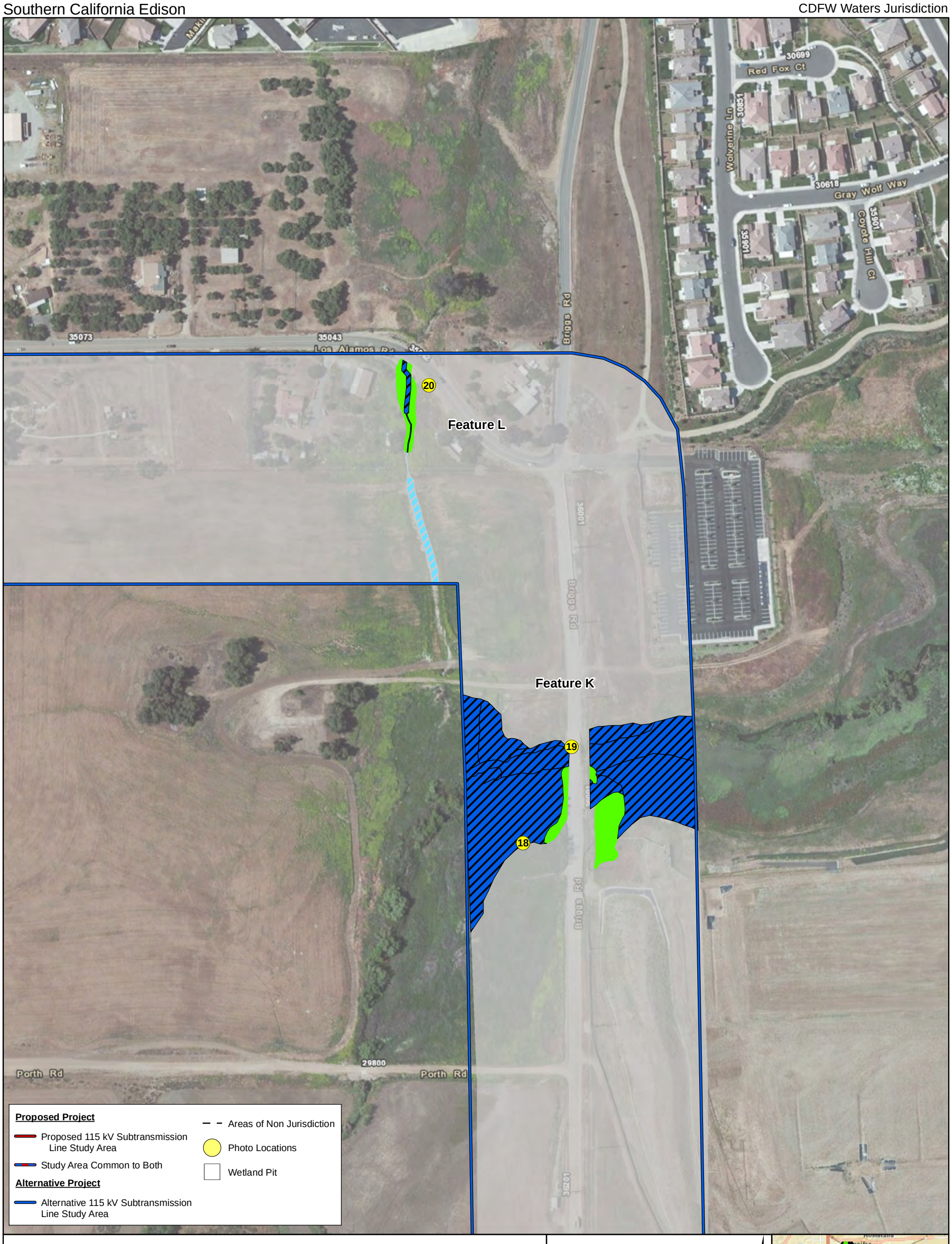
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-6**

Southern California Edison CDFW Waters Jurisdiction



CDFW Jurisdiction
- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction
- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction
- RWQCB and CDFW Jurisdiction

Sheet (23 of 25)

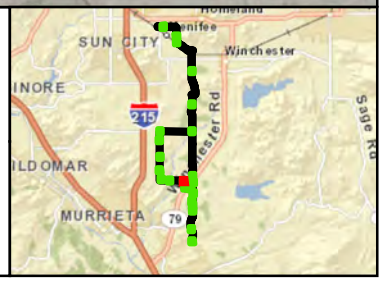
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AECOM 2014
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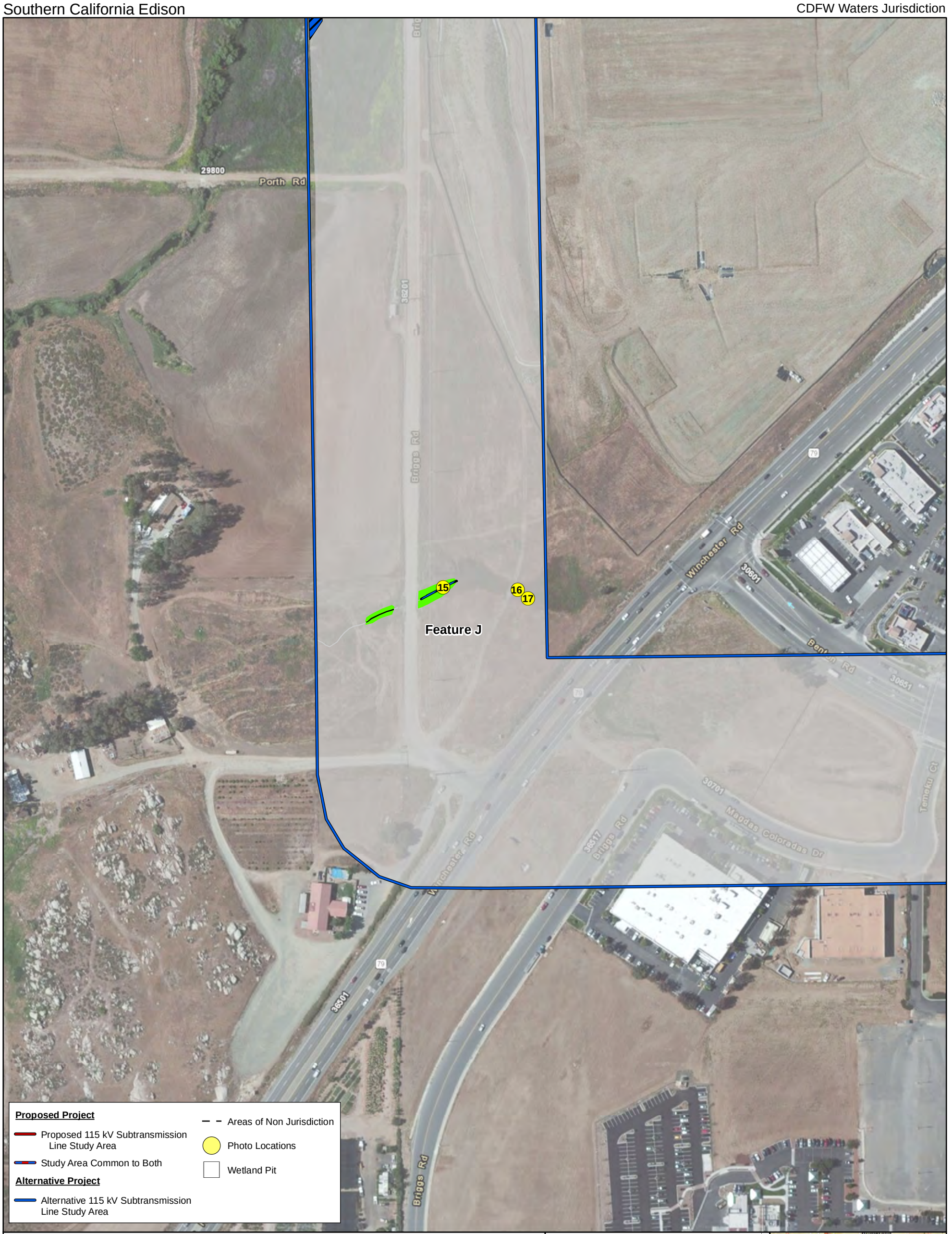


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-6

Southern California Edison

CDFW Waters Jurisdiction



CDFW Jurisdiction

- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction

- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction

- RWQCB and CDFW Jurisdiction

Sheet (24 of 25)

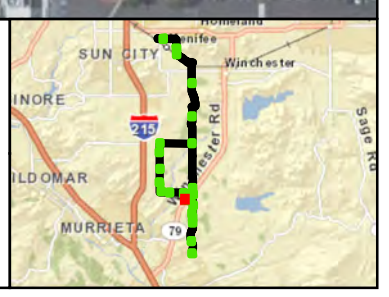
Sources:
SCE 2014
TRC 2013
AECOM 2014
Riverside County 2014
Esri 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-6**

Southern California Edison CDFW Waters Jurisdiction



CDFW Jurisdiction
- CDFW Unvegetated
- CDFW Nonwetland Water
- CDFW Riparian
- CDFW Top of Bank
- CDFW Wetland Water

USACE Jurisdiction
- USACE Water (USACE, RWQCB, and CDFW Jurisdiction)
- USACE Wetland (USACE, RWQCB, and CDFW Jurisdiction)

RWQCB Jurisdiction
- RWQCB and CDFW Jurisdiction

Sheet (25 of 25)

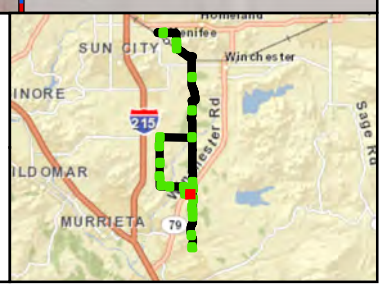
Sources:
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TRC 2013
AECOM 2014
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Esri 2014

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Table 4.4-6 Summary of Potential 401 and 404 Jurisdiction for Segment 2 of the Proposed Project

Feature Name	Waters of the U.S. (Acres)	Wetland Areas (Acres)	Total USACE Jurisdiction (Acres)	Approximate Linear Feet
Feature A (Santa Gertrudis Creek)	0.50	0.03	**0.53**	586
Feature B	0.01	0	**0.01**	193
Feature C	0.12	0.02	**0.14**	1,738
Feature D (Tucalota Creek)	0	0.20	**0.20**	483
Feature E	<0.01	0.03	**0.03**	210
Feature F	0.01	0.01	**0.02**	403
Feature G	0.01	0.01	**0.02**	554
Feature H	0.01	0.18	**0.19**	663
Total	**0.66**	**0.48**	**1.14**	**4,830**

All eight features within Segment 2 of the Proposed Project have been determined to be USACE jurisdictional waters subject to regulation pursuant to Sections 401 and 404 of the CWA and do not need to be addressed separately pursuant to Section 13260 of the Porter-Cologne Act.

CDFW jurisdiction associated with the Proposed Project totals approximately 3.25 acres, of which 2.11 acres consists of vegetated riparian habitat and 1.13 acres consists of unvegetated streambed. CDFW jurisdiction includes all areas within USACE jurisdiction and areas potentially subject to WDR requirements, in addition to adjacent associated riparian vegetation. The acreages of all features within Segment 2 of the Proposed Project Study Area are listed in Table 4.4-7 Summary of CDFW Jurisdiction for Segment 2 of the Proposed Project.

Table 4.4-7 Summary of CDFW Jurisdiction for Segment 2 of the Proposed Project

Feature Name	CDFW Unvegetated (Acres)	CDFW Riparian (Acres)	Total CDFW Jurisdiction (Acres)	Approximate Linear Feet
Feature A (Santa Gertrudis Creek)	0.95	0.03	**0.98**	586
Feature B	0.01	0.02	**0.03**	193
Feature C	0.12	0.31	**0.43**	1,738

Feature Name	CDFW Unvegetated (Acres)	CDFW Riparian (Acres)	Total CDFW Jurisdiction (Acres)	Approximate Linear Feet
Feature D (Tucalota Creek)	0	0.50	**0.50**	483
Feature E	<0.01	0.11	**0.11**	210
Feature F	0.03	0.13	**0.16**	403
Feature G	0.01	0.11	**0.13**	554
Feature H	0.01	0.90	**0.91**	663
Total	**1.13**	**2.11**	**3.25**	**4,830**

4.4.1.3 Critical Habitat

FESA requires that when USFWS designates Critical Habitat for a species, it identifies known physical and biological features. These features, called primary constituent elements, are within the geographical area occupied by the species at the time of listing, are essential to the conservation of the species, and may require special management considerations or protection.

The Proposed Project overlaps the designated USFWS proposed San Diego ambrosia (*Ambrosia pumila*) Critical Habitat, Unit: three Santa Gertrudis Creek watershed (USFWS, 2009) depicted in Figure 4.4-7 Critical Habitat. The Proposed Project spans 1,953.1 linear feet of this Critical Habitat unit of San Diego ambrosia. USFWS has identified two constituent elements for San Diego ambrosia (USFWS, 2010). First, this species requires sandy loam soils that occur on a terrace or gentle slope (0 to 42 degrees) near a river, creek, or other drainage, or in the watershed of a vernal pool. Second, this species requires grassland or disturbed/ruderal habitats, or openings in coastal sage scrub, on the soils and topography described above. This location has the appropriate clay soil type in the open grassland terrace habitat defined as a primary constituent of Critical Habitat for this species. Within the San Diego ambrosia Critical Habitat in Segment 2 of the Proposed Project, San Diego ambrosia was observed in areas of nonnative grassland on sandy loam and clay soils, just north of Nicolas Road. Approximately 6,315 individuals were identified in an area of 2.3 acres at this location. This is discussed further in Section 4.4.1.6, Special Status Plant Species.

4.4.1.4 Special Status Plant Species

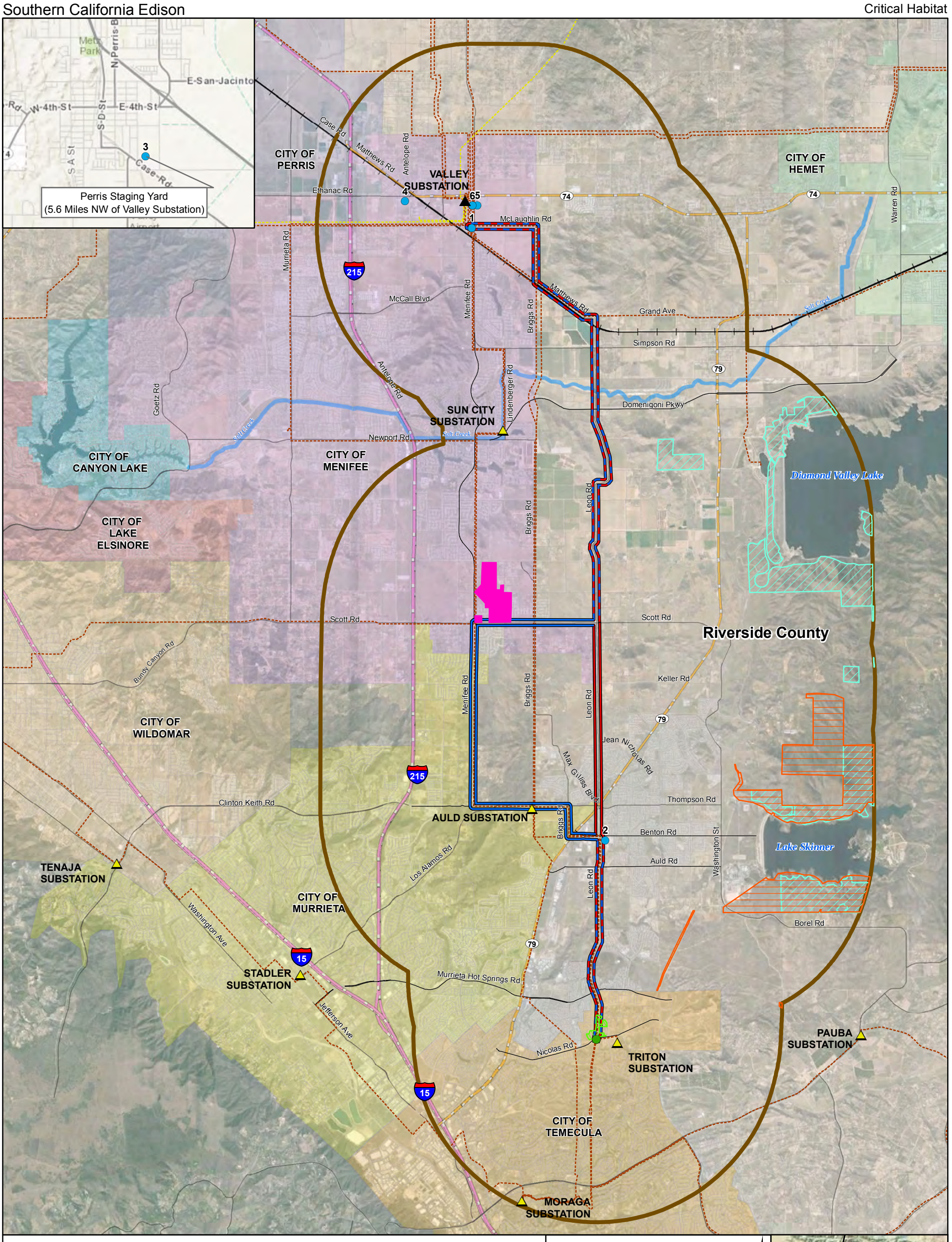
For the Proposed Project, 61 special status plant species were identified from the literature review of which 19 were documented (e.g., local experts, presence of habitat conditions, the list of WRCMSHCP covered plant species), as having a medium to high potential to occur within 3 miles of the Proposed Project Study Area. See Figure 4.4-8 Existing Resource Data for Special Status Plants, for those species with documented local records. See Appendix F BRA Segment 1 and Segment 2 for detailed information regarding potential occurrence for all 61 species. See Field Surveys in Section 4.4.1, Environmental Setting, for more detailed information on survey

methods. During field surveys, nine special status plant species were documented within the Proposed Project Study Area:

- San Diego ambrosia – *Ambrosia pumila* (FE, WRCMSHCP NEPS, CNPS List 1B.1).
- Smooth tarplant – *Centromadia pungens laevis* (CNPS 1B.1, WRCMSHCP CAPS)
- Parry's spineflower – *Chorizanthe parryi parryi* (CNPS 1B.1)
- Long-spined spineflower – *Chorizanthe polygonoides longispina* (CNPS 1B.2)
- Small-flowered morning-glory – *Convolvulus simulans* (CNPS List 4.2)
- Palmer's grapplinghook – *Harpagonella palmeri* (CNPS List 4.2)
- Paniculate tarplant – *Hemizonia paniculata* (CNPS 4.2)
- Robinson's peppercress – *Lepidium virginicum robinsonii* (CNPS 1B.2)
- Small-flowered microseris – *Microseris douglasii platycarpha* (CNPS 4.2)

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-7**

Southern California Edison Critical Habitat

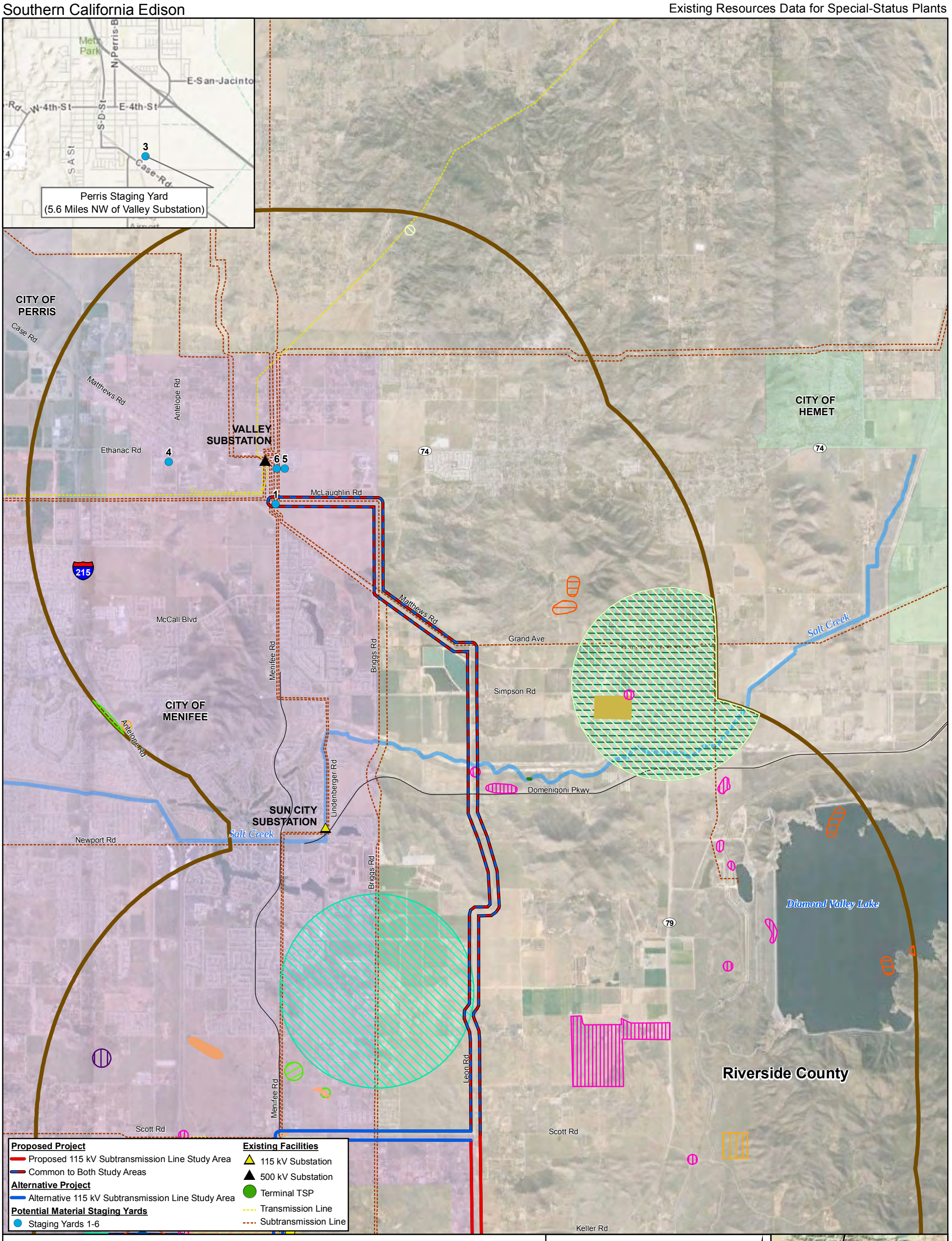


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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-8**

Southern California Edison

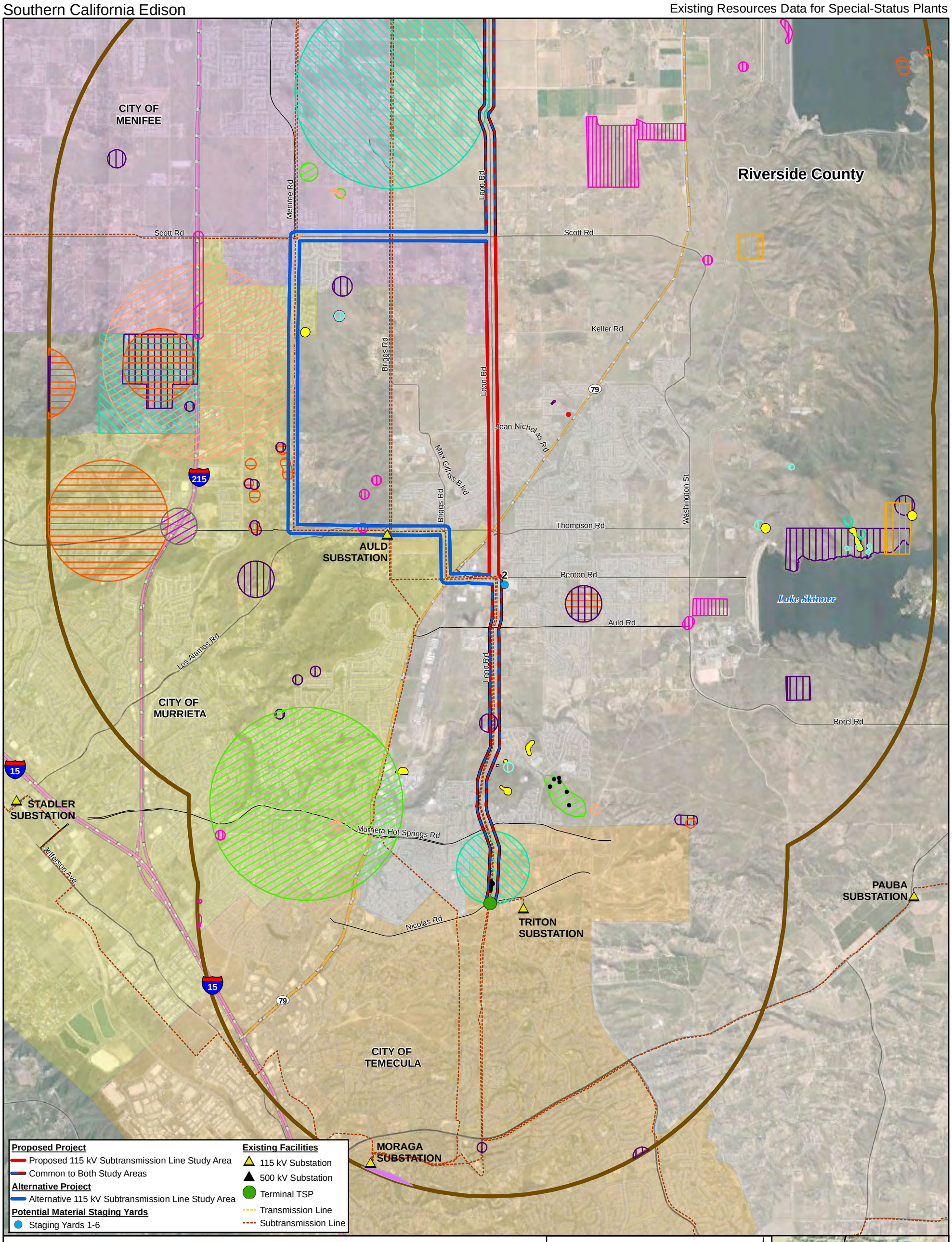
Existing Resources Data for Special-Status Plants



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-8**

Southern California Edison

Existing Resources Data for Special-Status Plants



Chapter 4

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Specific locations of these species are provided in Figure 4.4-9 Special Status Plant Species. Seven special status plant species were documented within the Proposed Project Study Area during field surveys for special status plant species conducted in 2012 and 2013 for Segment 1 of the Proposed Project. During the 2014 field surveys for Segment 2 of the Proposed Project, one listed and five special status plant species were detected. Special status plant species occurring within the Proposed Project Study Area are described in further detail below.

San Diego Ambrosia (Federally Endangered, WRCMSHCP NEPS, CNPS List 1B.1)

San Diego ambrosia is a federally endangered, WRCMSHCP narrow endemic, and CNPS List 1B.1 species. It occurs primarily on upper terraces of rivers and drainages (Beauchamp, 1986). Within these areas, the species is found in open grassland composed of native and nonnative plant species, and openings in coastal sage scrub (Johnson et al., 1999), and primarily on sandy loam or clay soils (Johnson et al., 1999). The species may also be found in disturbed/ruderal habitat types (areas dominated by nonnative grasses and forbs) such as along fire breaks and the margins of dirt roads (Beauchamp, 1986). San Diego ambrosia is a clonal herbaceous perennial (USFWS, 2010).

This species needs space to spread its rhizomes to reproduce vegetatively, without competition from fast-growing invasive species. The species is not shade-tolerant, so open areas in earlier successional stage habitats, such as the nonnative grasslands found within the Proposed Project Study Area, are a requirement for its success.

San Diego ambrosia was observed in areas of nonnative grassland on sandy loam and clay soils, just north of Nicolas Road (AECOM, 2014a) (Figure 4.4-9 Special Status Plant Species). Approximately 6,315 individuals were identified in an area of 2.3 acres at this location. This population of San Diego ambrosia is within the USFWS proposed San Diego Ambrosia Critical Habitat, Unit: three Santa Gertrudis Creek watershed (USFWS, 2009) (Figure 4.4-7 Critical Habitat).

Smooth Tarplant (CAPS, CNPS List 1B.1)

Smooth tarplant occurs in a variety of habitats, including alkali scrub, alkali playas, riparian woodland, watercourses, and grasslands with alkaline affinities. It blooms between April and September.

Populations of smooth tarplant were identified during 2012, 2013, and 2014 rare plant surveys (TRC, 2013; AECOM, 2014a). As seen in Figure 4.4-9 Special Status Plant Species, these populations occur within the Proposed Project Study Area.

Parry's Spineflower (CNPS List 1B.1)

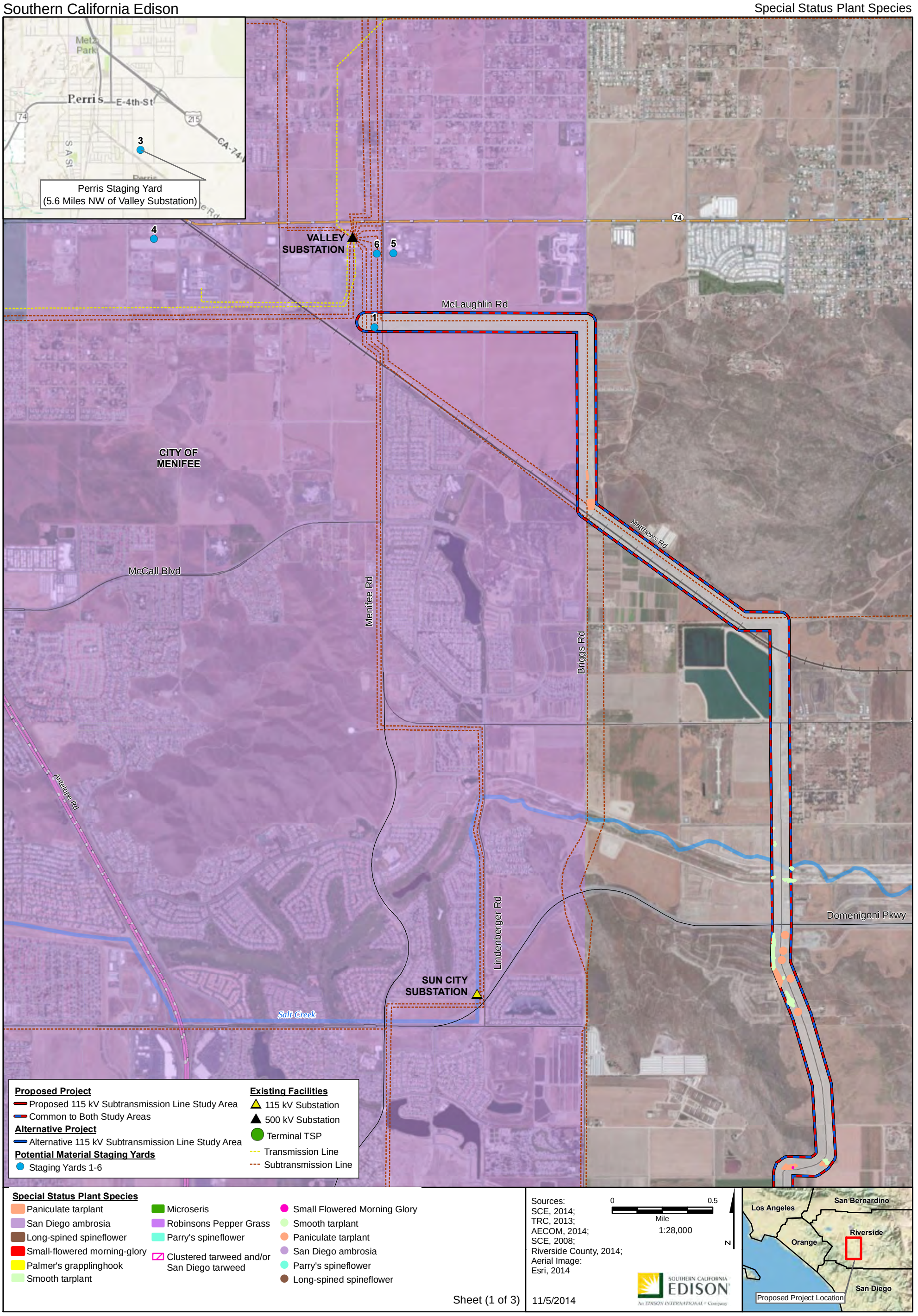
Parry's spineflower is a CNPS List 1B.1 species. This plant occurs on sandy soils within mixed grassland and scrub/chaparral communities. Parry's spineflower is known from scattered populations in the foothills of the San Gabriel, San Bernardino, and San Jacinto Mountains. Much of its native habitat has been destroyed by development. This low-growing annual blooms

between April and June, and typically occurs at elevations of 130 to 5,600 feet above mean sea level.

Parry's spineflower was observed in a transitional area between nonnative grassland and Diegan coastal sage scrub on sandy loam soils. Two individuals were identified in an area of approximately 2 square feet, in the southern portion of the Proposed Project Study Area, east of Shree Road and south of Suzi Lane (AECOM, 2014a) (Figure 4.4-9 Special Status Plant Species).

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-9**

Southern California Edison Special Status Plant Species

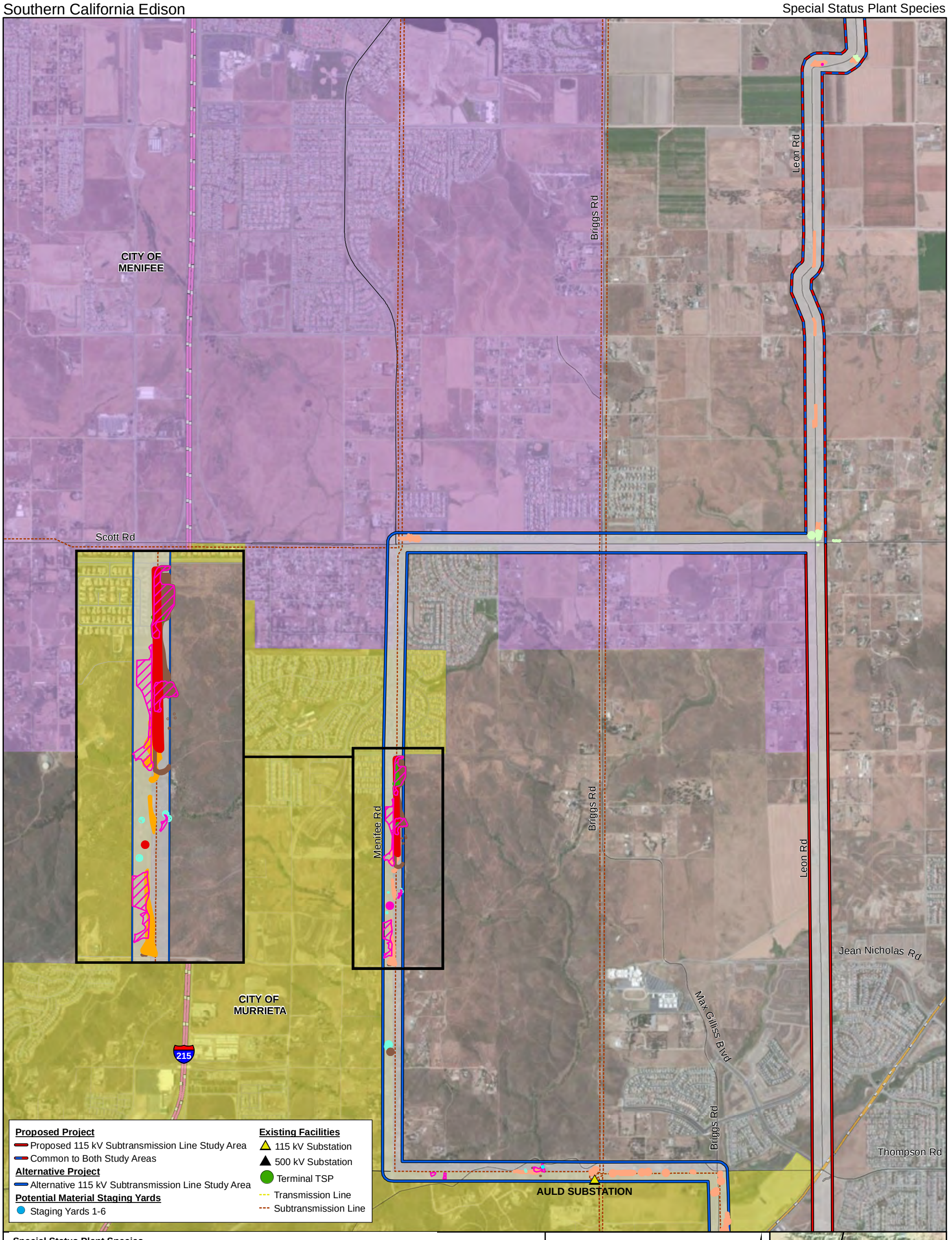


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-9

Southern California Edison

Special Status Plant Species



Special Status Plant Species

- Paniculate tarplant
- San Diego ambrosia
- Long-spined spineflower
- Small-flowered morning-glory
- Palmer's grapplinghook
- Smooth tarplant
- Microseris
- Robinsons Pepper Grass
- Parry's spineflower
- Clustered tarweed and/or San Diego tarweed
- Small Flowered Morning Glory
- Smooth tarplant
- Paniculate tarplant
- San Diego ambrosia
- Parry's spineflower
- Long-spined spineflower

Sheet (2 of 3)

Sources:
SCE, 2014;
TRC, 2013;
AECOM, 2014;
SCE, 2008;
Riverside County, 2014;
Aerial Image:
Esri, 2014

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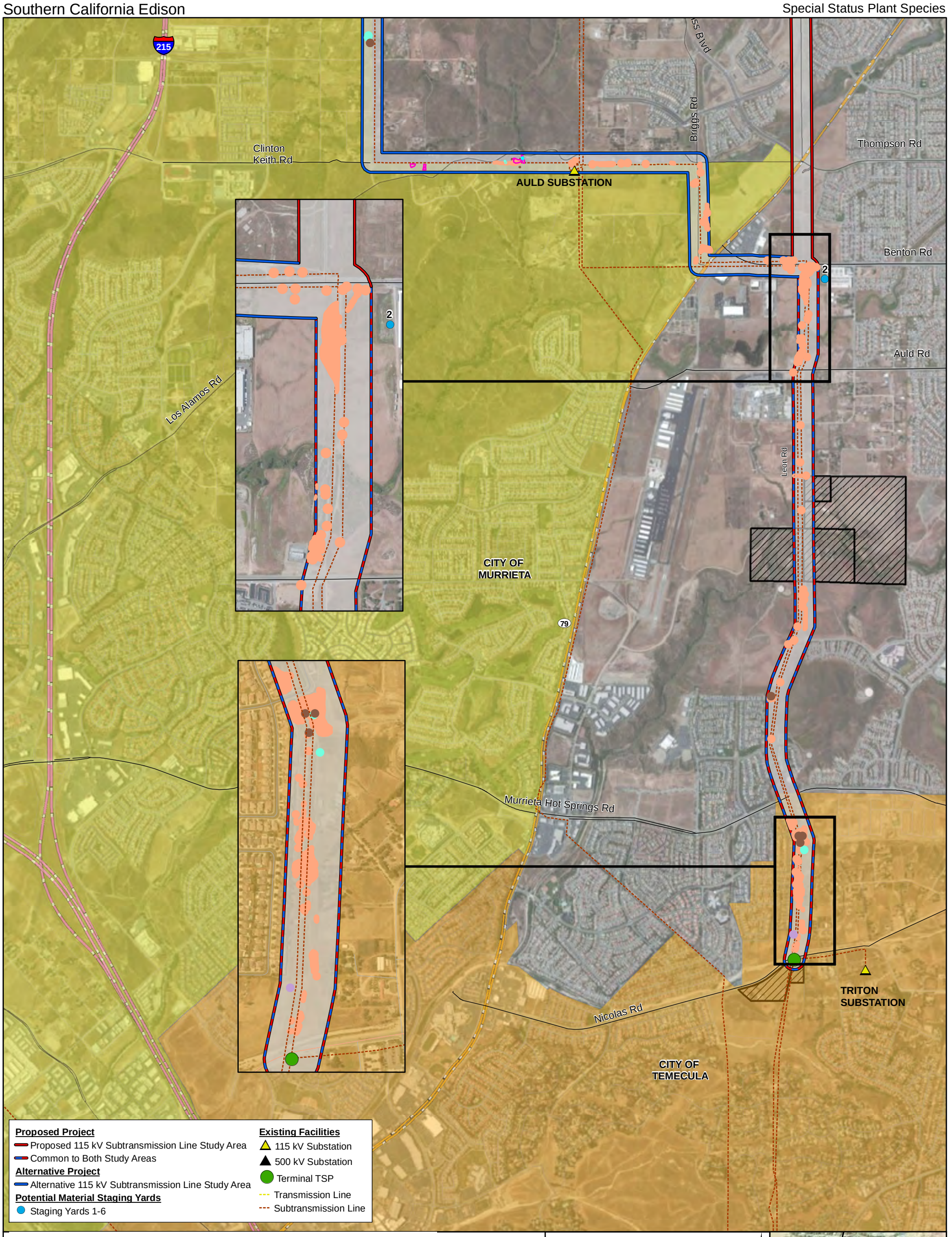
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-9**

Southern California Edison Special Status Plant Species



Proposed Project
- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Areas

Alternative Project
- Alternative 115 kV Subtransmission Line Study Area

Potential Material Staging Yards
- Staging Yards 1-6

Existing Facilities
- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Special Status Plant Species
- Paniculate tarplant
- San Diego ambrosia
- Long-spined spineflower
- Small-flowered morning-glory
- Palmer's grapplinghook
- Smooth tarplant
- Microseris
- Robinsons Pepper Grass
- Parry's spineflower
- Clustered tarweed and/or San Diego tarweed
- Small Flowered Morning Glory
- Smooth tarplant
- Paniculate tarplant
- San Diego ambrosia
- Parry's spineflower
- Long-spined spineflower

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Sheet (3 of 3)

Sources:
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TRC, 2013;
AECOM, 2014;
SCE, 2008;
Riverside County, 2014;
Aerial Image:
Esri, 2014

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Long-Spined Spineflower (CNPS List 1B.2)

Long-spined spineflower is a CNPS List 1B.2 species. It is primarily associated with gabbroic clay soils in coastal scrub, meadows, and grassland communities, and typically blooms from April through June (Reiser, 2001). The majority of populations are associated with needlegrass (*Stipa* spp.) in clay soils. Long-spined spineflower occurs from approximately 100 to 4,700 feet in elevation in southwestern California from western Riverside County, and south through San Diego County and northwestern Baja California, Mexico (CDFW, 2014a).

Long-spined spineflower was observed in scattered populations on clay soils within areas of nonnative grassland and openings in Diegan coastal sage scrub. Approximately 400 individuals of long-spined spineflower were observed in an area of 0.3 of an acre along Leon Road north of McGowans Lane (AECOM, 2014a) (Figure 4.4-9 Special Status Plant Species).

Small-Flowered Morning-Glory (CNPS List 4.2)

Small-flowered morning-glory is a CNPS List 4.2 species. This plant is a low-growing annual herb found on friable clay soils that are typically devoid of shrubs and in openings in chaparral, sage scrub, and grasslands (Reiser, 2001). Small-flowered morning-glory typically blooms from March through July and occurs from approximately 100 to 2,300 feet in elevation in northwestern California, from western Contra Costa County south through San Diego County and northwestern Baja California, Mexico (CDFW, 2014a).

Small-flowered morning-glory was observed in scattered populations on clay soils within areas of nonnative grassland and openings in Diegan coastal sage scrub (AECOM, 2014a). The most northern population of this species observed occurs along Leon Road, south of Auld Road. At this location, approximately 50,646 individuals were observed in an area of 3.2 acres. South of this population along Leon Road, north of McGowans Pass, is another population of approximately 736 individuals of small-flowered morning-glory observed in an area of 0.2 of an acre. The most southern population within the Proposed Project Study Area was observed just north of Murrieta Hot Springs Road (Figure 4.4-9 Special Status Plant Species). At this location, approximately 250 plants occupy an area of roughly 3,000 square feet.

Palmer's Grapplinghook (CNPS List 4.2)

Palmer's grapplinghook is a CNPS List 4.2 species. It is an inconspicuous annual herb found on clay vertisols, typically within open grassy areas or open Diegan coastal sage scrub (Reiser, 2001). Palmer's grapplinghook typically blooms from March through May and occurs from approximately 50 to 2,700 feet in elevation in southwestern California, from Los Angeles County south through San Diego County and northwestern Baja California, Mexico (CDFW, 2014a).

Palmer's grapplinghook was observed along Leon Road, north of McGowans Pass, in clay areas of nonnative grassland and open Diegan coastal sage scrub (AECOM, 2014a) (Figure 4.4-9 Special Status Plant Species). At this location, approximately 985 plants were observed in an area of 1.6 acres.

Paniculate Tarplant (CNPS List 4.2)

Paniculate tarplant is a CNPS List 4.2 species. This plant is a low-growing annual herb found on clay and sandy soils within areas of grassland. Paniculate tarplant typically blooms from April through November and occurs from approximately 75 to 2,800 feet in elevation in northwestern California, from coastal southern California, south into northwestern Baja California, Mexico (CDFW, 2014a).

Hundreds of individual paniculate tarplants were observed in scattered populations on clay soils within areas of nonnative grassland and openings in Diegan coastal sage scrub (AECOM, 2014a) (Figure 4.4-9 Special Status Plant Species).

Robinson's Peppercress (CNPS List 1B.2)

Robinson's peppercress is an erect and rather bushy annual traditionally distinguished from its nearest relatives by its short stature, deeply dissected leaves, branching low on the stem, and a terete pedicel. This subspecies is not recognized by the Jepson Manual II (Baldwin et al., 2012) and is lumped with taller plants having a flattened pedicel, under the name *Lepidium virginicum* ssp. *menziesii*. To date, it is not known what the status of this plant will be in the future or even if the two subspecies of peppercress (*Lepidium virginicum*), which are differentiated in the field, will be differentiated by academics.

A single population of about five plants was found in a seepy, roadside ditch on the south side of Los Alamos Road at its crossing with Warm Springs Creek (AECOM, 2014a) (Figure 4.4-9 Special Status Plant Species).

Small-flowered Microseris (CNPS List 4.2)

Small-flowered microseris is an erect annual with distinctively nodding buds and pale yellow ray flowers. The pappus scales lack a notch at the scale tip and are longer than the fruit. This species is found on clay soils and occasionally near serpentine. It can share habitat with Lindley's silverpuffs (*Microseris/Uropappus lindleyi*) and grasslands silverpuffs (*Microseris/ Stebbinsoseris heterocarpa*), though heavier clay soils appear to favor Douglas' silverpuffs (*Microseris douglasii* ssp. *platycarpha*). Most collections have been made from Los Angeles County to San Diego County and do not extend eastward beyond western Riverside County on the coastal slope.

Only five plants were observed intermingled with small-flowered morning glory over a long section of the infrequently traveled dirt extension of Menifee Road south of Keller Road (TRC, 2013) (Figure 4.4-9 Special Status Plant Species) in Segment 1 of the Proposed Project. The plants were depauperate due to drought. A few additional plants observed east of the Proposed Project Study Area were neither mapped nor counted.

4.4.1.5 Special Status Wildlife Species

As determined through literature searches, 72 special status animal species were determined to have potential to occur within the Proposed Project. Of those, 34 were documented or expected to have a moderate to high potential of occurring within the Proposed Project Study Area. Special status wildlife species were evaluated for the probability of occurrence based on conditions observed in the field and literature reviews. See Figure 4.4-10 Existing Resources Data for Birds, Amphibians, and Reptiles and Figure 4.4-11 Existing Resources Data for Invertebrates and Mammals, for records of species occurring within 3 miles of the Proposed Project. For more information on the occurrence of special status wildlife, see Appendix F BRA Segment 1 and Segment 2.

Locations of special status wildlife species documented during field surveys are mapped in Figure 4.4-12 Special Status Bird Species, and Figure 4.4-13 Special Status Mammal Species and Figure 4.4-14 Amphibian and Reptile Species. In addition to special status avian species, common and widespread raptor (birds of prey) species potentially nesting in or near the Proposed Project are regarded as sensitive resources by the CFGC. These species are depicted in Figure 4.4-12 Special Status Bird Species.

The following summarizes survey results for special status wildlife species. All surveys for Segment 1 of the Proposed Project were conducted by TRC or its subcontractors in 2012 (except for fairy shrimp and Quino checkerspot butterfly surveys, which were conducted in 2013), and surveys for Segment 2 of the Proposed Project were conducted in 2013 and 2014 by AECOM or their subcontractors. See the Field Surveys section in Section 4.4.1, Environmental Setting, for more detailed information on survey methods.

Coastal California Gnatcatcher (Federally Threatened, CSSC, WRCMSHCP Covered Species)

USFWS-designated Critical Habitat occurs within 3 miles of the Proposed Project (Figure 4.4-7 Critical Habitat). In 2012, one coastal California gnatcatcher (presumed a juvenile) was observed on the corner of Briggs Road and Matthews Road in Menifee within Segment 1 of the Proposed Project Survey Area (TRC, 2013). A pair and three young were observed at the southeastern corner of the range of hills that terminates at the bend in Leon Road just west of Año Crest Road and south of Menifee Road.

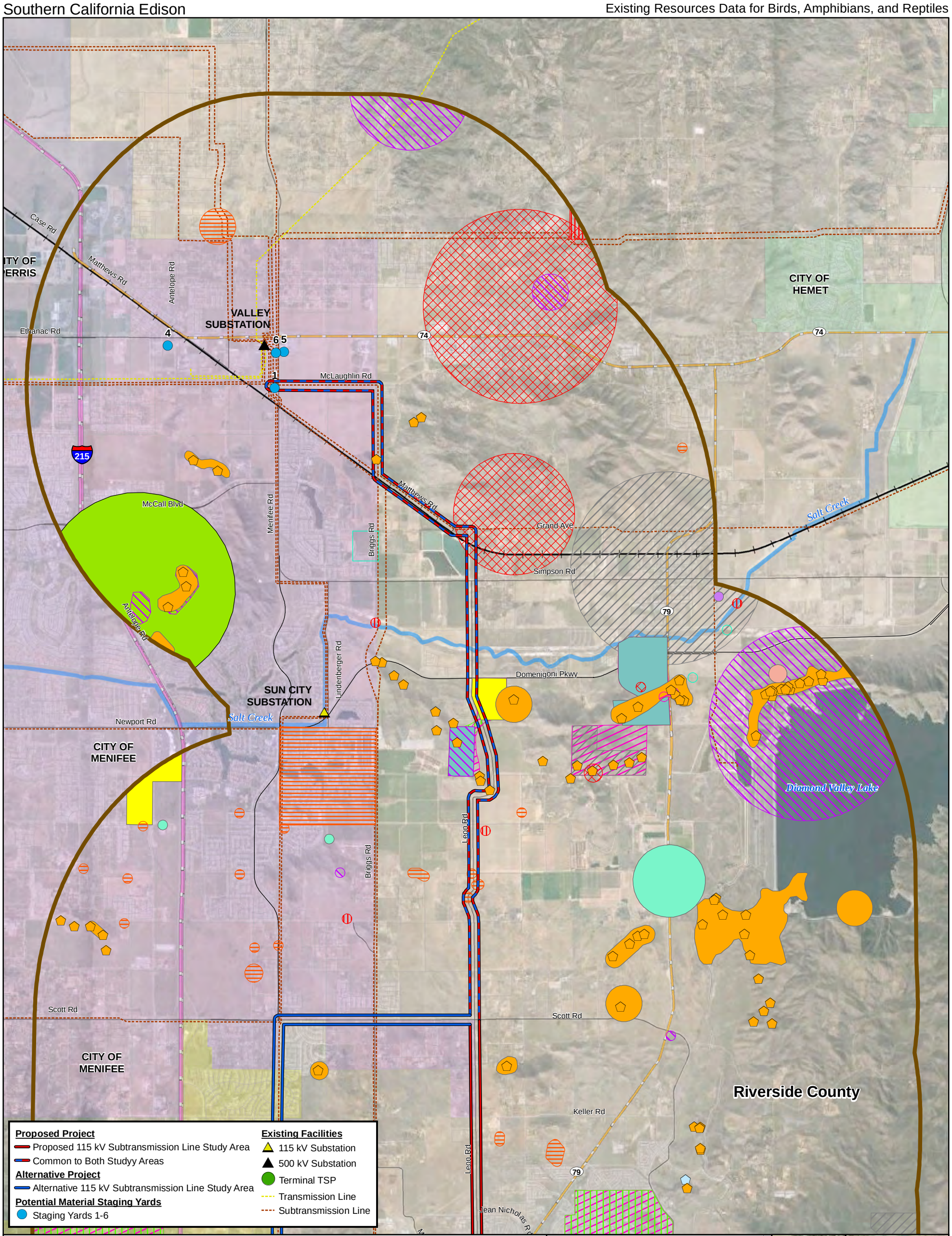
Coastal California gnatcatcher suitable habitat was mapped for Segment 2 of the Proposed Project; however, this species is considered adequately conserved through the reserve assembly of the WRCMSHCP; therefore, no protocol surveys were conducted.

One gnatcatcher was detected incidentally during burrowing owl surveys in 2014 within Segment 2 of the Proposed Project Survey Area west of Leon Road within suitable Diegan coastal sage scrub habitat (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species). Gnatcatchers are known to occur within the Proposed Project Survey Area, per CNDDB records (CDFW, 2014a). Although focused surveys were not conducted for the entirety of the Proposed Project, this species is likely to occur within Diegan coastal sage scrub communities throughout the Proposed Project Study Area.

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-10**

Southern California Edison

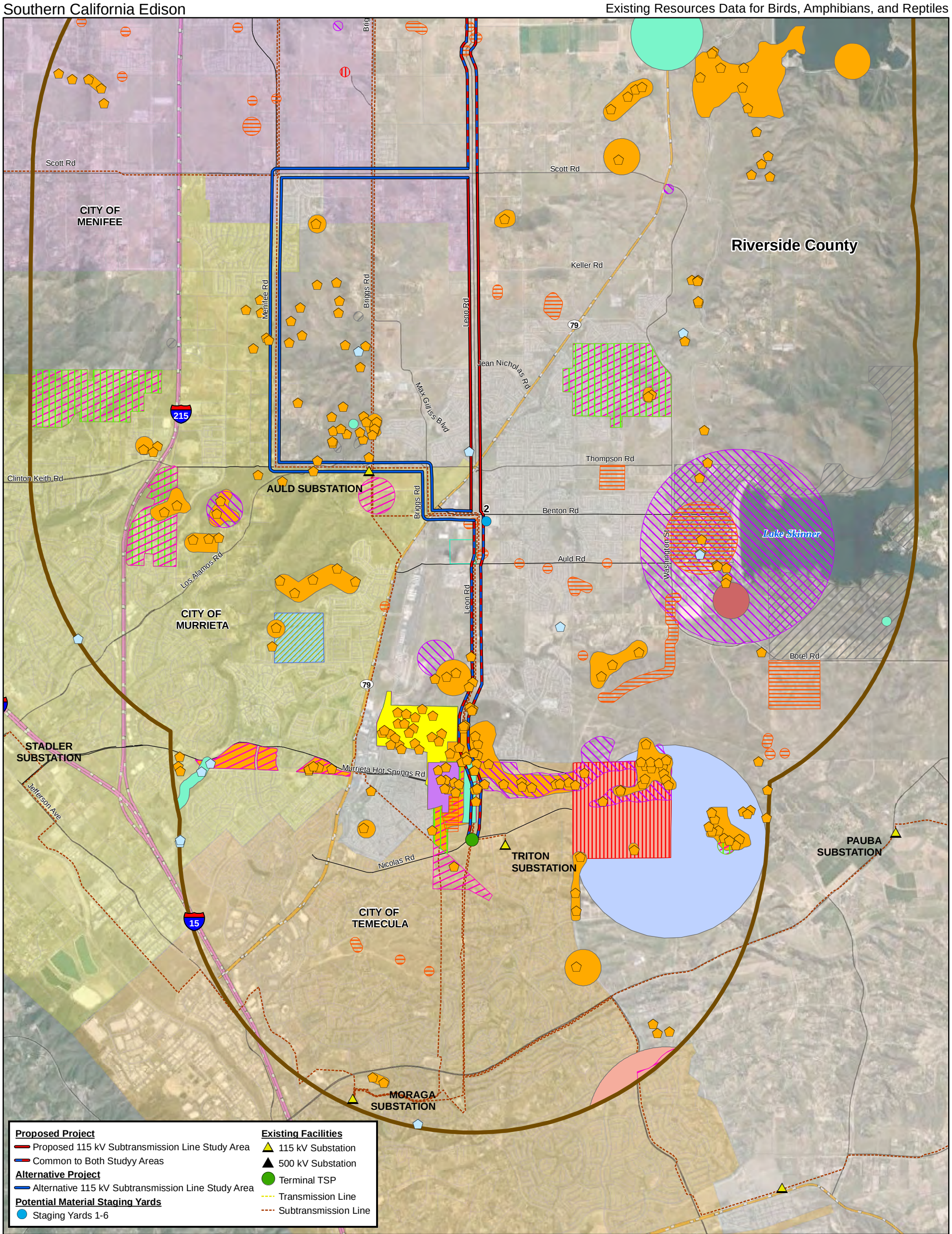
Existing Resources Data for Birds, Amphibians, and Reptiles



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-10**

Southern California Edison

Existing Resources Data for Birds, Amphibians, and Reptiles



3-Mile Buffer

USFWS Species Occurrences
- Least Bell's vireo
- Coastal California gnatcatcher

CNDDB Bird, Reptile and Amphibian
- Bell's sage sparrow
- California horned lark
- Bald eagle
- Western burrowing owl
- Coast horned lizard
- Coastal California gnatcatcher
- Coastal whiptail
- Ferruginous hawk
- Golden eagle
- Least Bell's vireo
- Loggerhead shrike
- Northern harrier
- Orange-throated whiptail
- Red-diamond rattlesnake
- Southern California rufous-crowned sparrow
- Western pond turtle
- Western spadefoot
- White-tailed kite

Sheet (2 of 2)

Sources:
SCE, 2014;
CNDDB, 2014;
USFWS, 2014;
Riverside County, 2014;
Aerial Image:
ESRI, 2014

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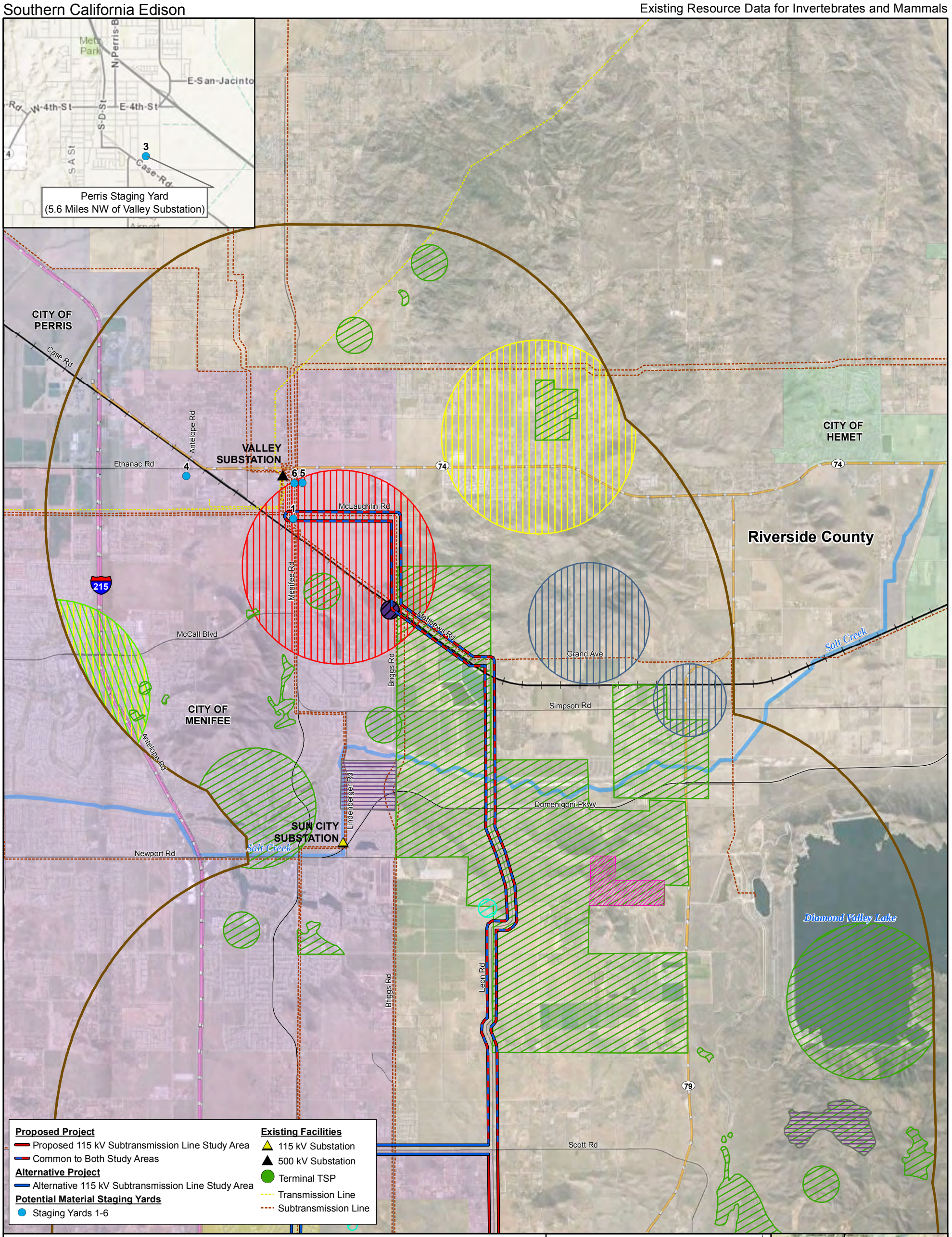
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-11**

Southern California Edison

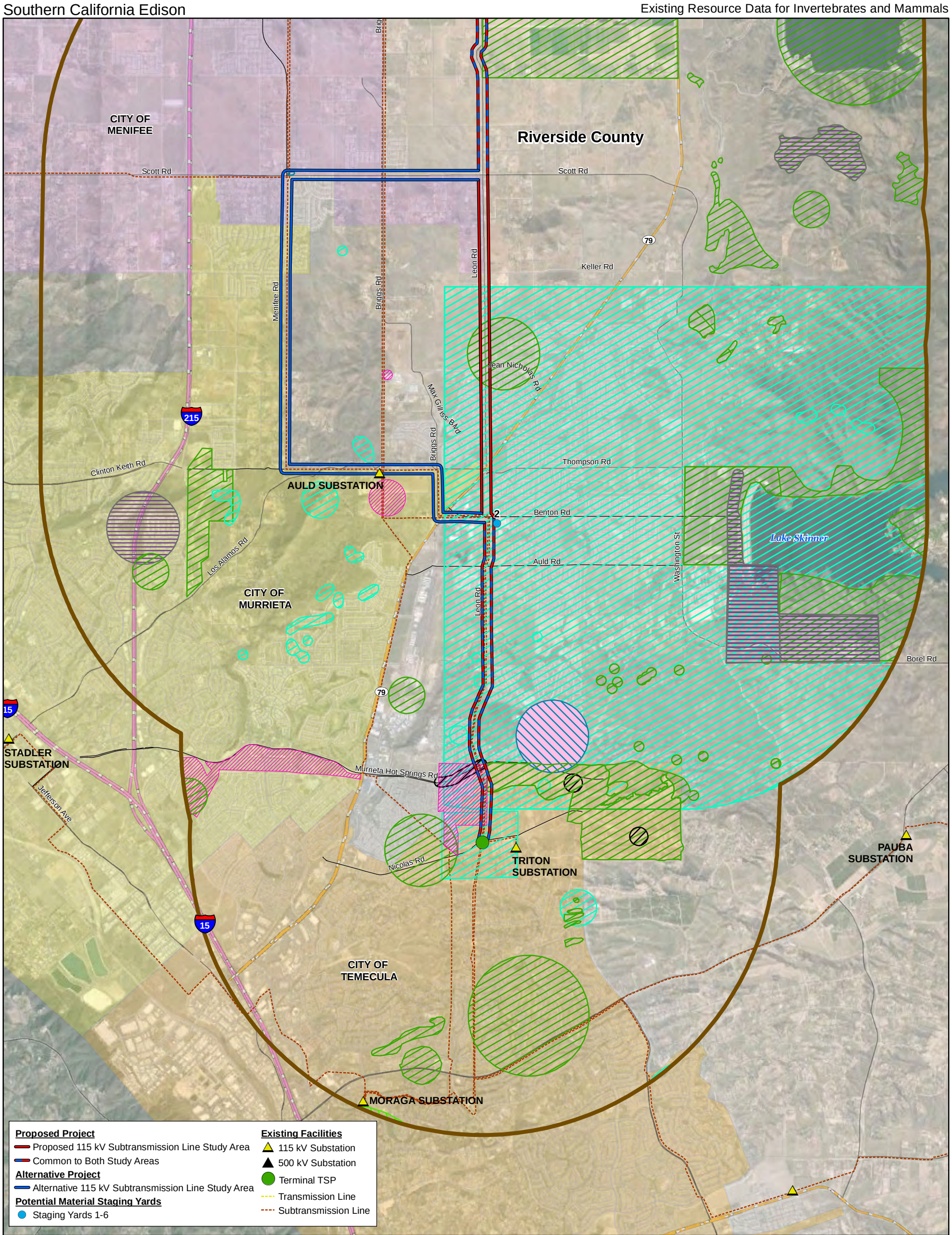
Existing Resource Data for Invertebrates and Mammals



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-11**

Southern California Edison

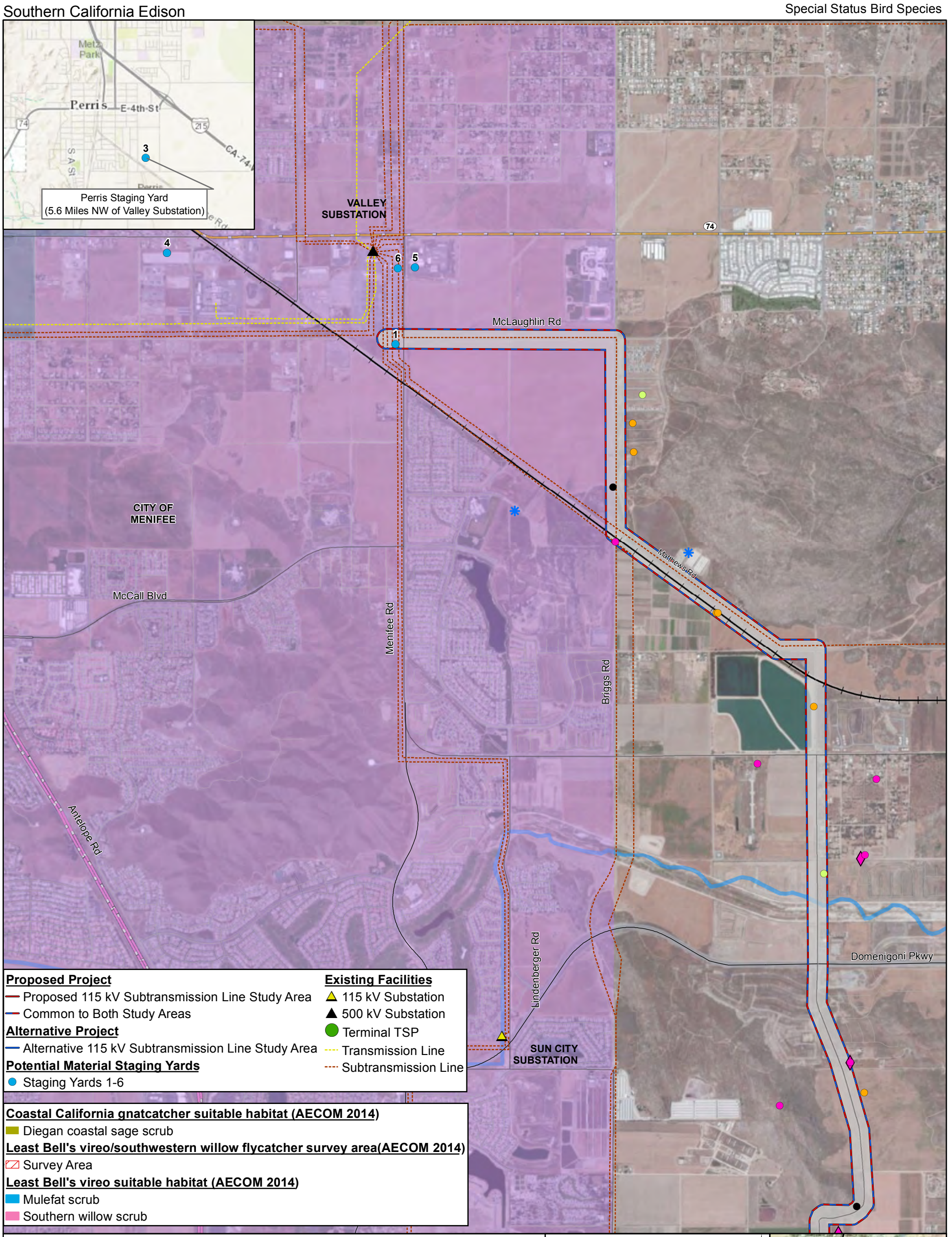
Existing Resource Data for Invertebrates and Mammals



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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-12**

Southern California Edison Special Status Bird Species



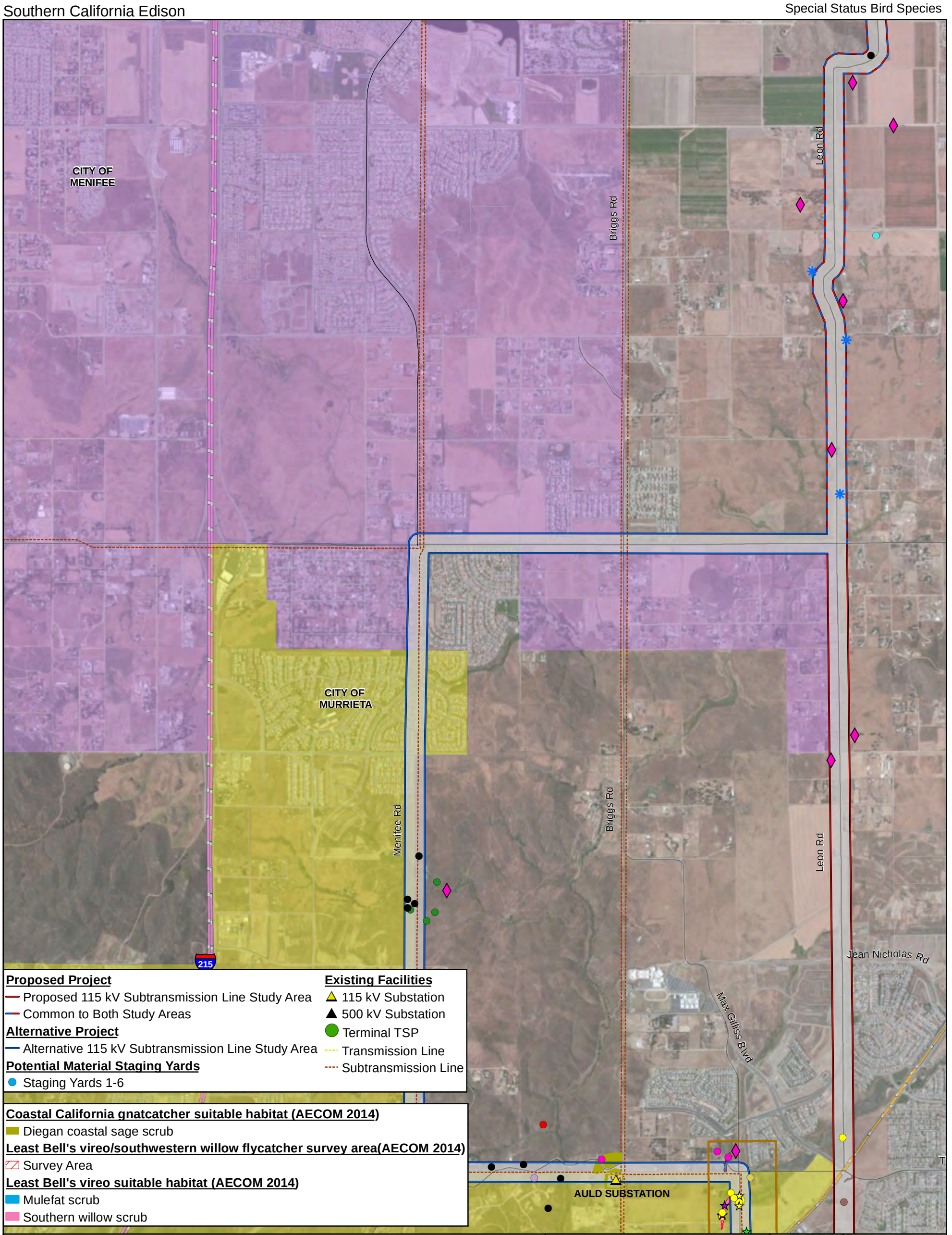
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-12

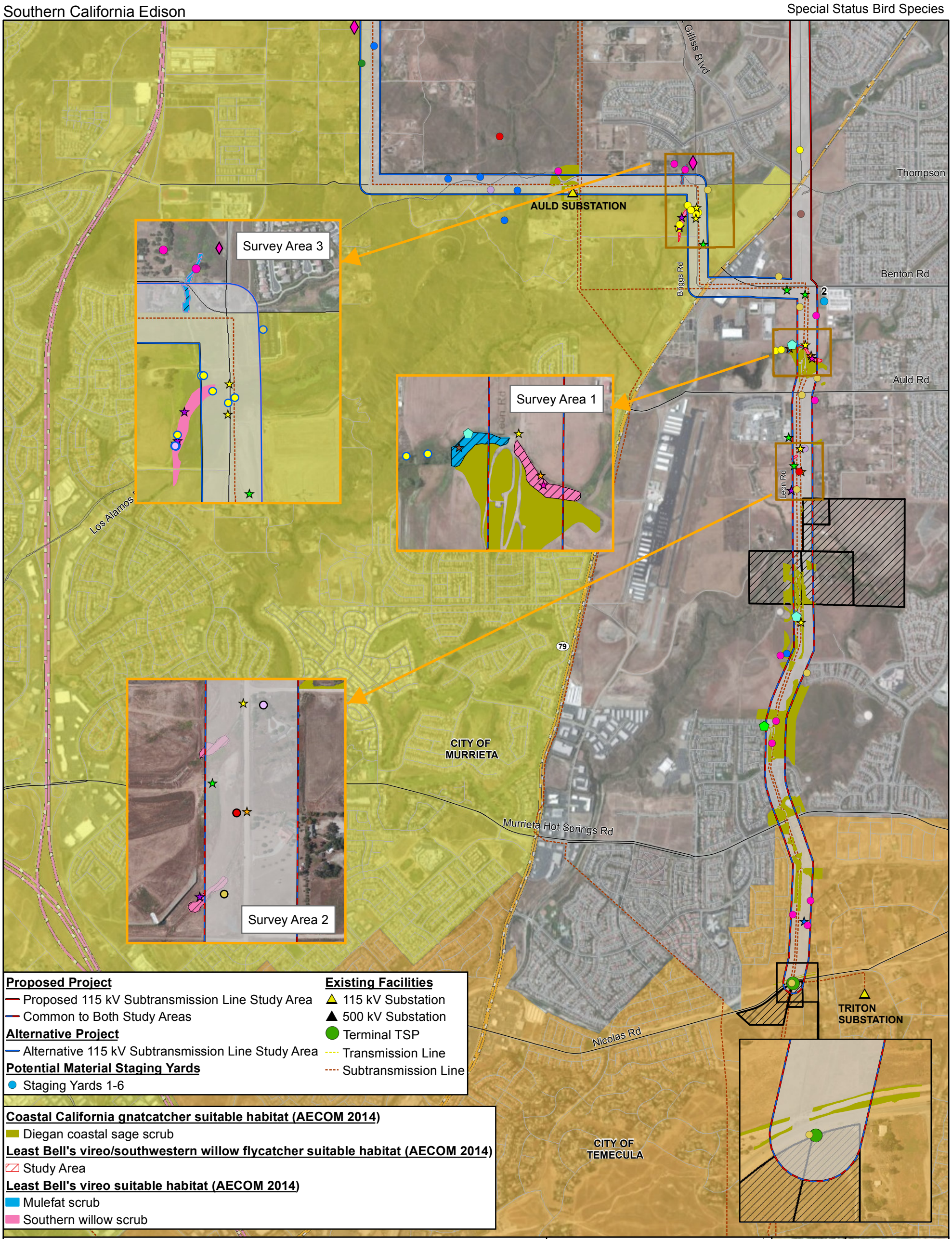
Southern California Edison

Special Status Bird Species



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-12**

Southern California Edison Special Status Bird Species



Proposed Project
- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Areas

Alternative Project
- Alternative 115 kV Subtransmission Line Study Area

Potential Material Staging Yards
- Staging Yards 1-6

Existing Facilities
- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Coastal California gnatcatcher suitable habitat (AECOM 2014)
- Diegan coastal sage scrub

Least Bell's vireo/southwestern willow flycatcher suitable habitat (AECOM 2014)
- Study Area

Least Bell's vireo suitable habitat (AECOM 2014)
- Mulefat scrub
- Southern willow scrub

Special Status Bird Species

- American kestrel
- Bell's Vireo
- Black-crowned night heron
- California Gnatcatcher
- California horned lark
- Cooper's Hawk
- Costa's hummingbird
- Great-horned owl
- Lawrence's goldfinch
- Northern Harrier
- Red-tailed Hawk
- Sage Sparrow
- Tricolored blackbird
- Turkey vulture
- White-faced ibis
- Willow Flycatcher
- Yellow warbler
- Red-tailed hawk nest location
- SCE Could Not Access Properties

(Sheet 3 of 3)

Sources:
SCE 2014
TRC 2013
AECOM 2014
Riverside County 2014
TRC 2008
Esri 2014

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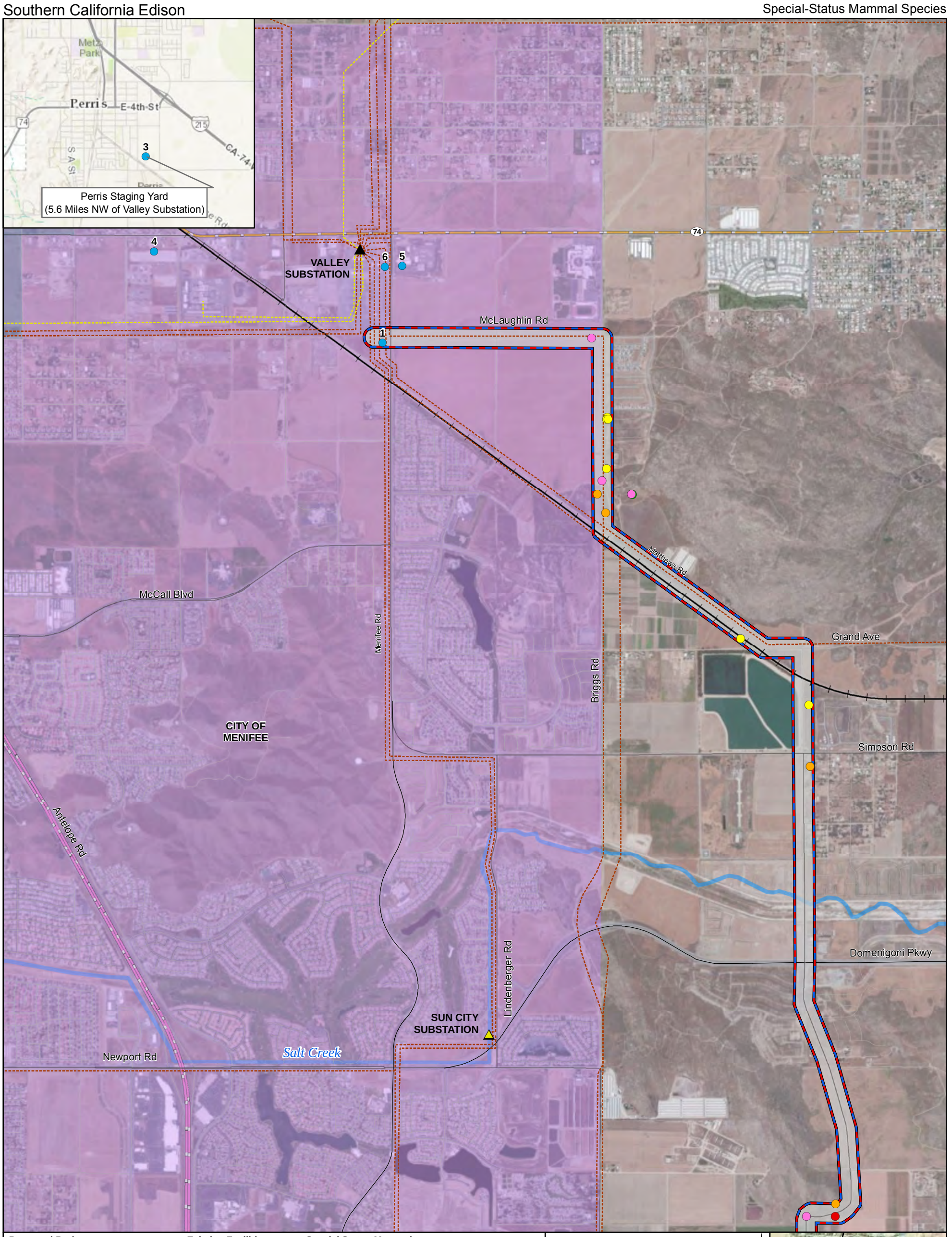
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-13**

Southern California Edison Special-Status Mammal Species



Proposed Project
- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Areas

Alternative Project
- Alternative 115 kV Subtransmission Line Study Area

Potential Material Staging Yards
- Staging Yards 1-6

Existing Facilities
- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Special Status Mammals
- Black-tailed Jackrabbit
- Long-tailed Weasel
- Los Angeles Pocket Mouse
- San Diego Desert Woodrat
- Stephens Kangaroon Rat

Sheet (1 of 3)

Sources:
SCE 2014;
SCE 2008;
TRC 2013;
Riverside County, 2014;
Esri 2014

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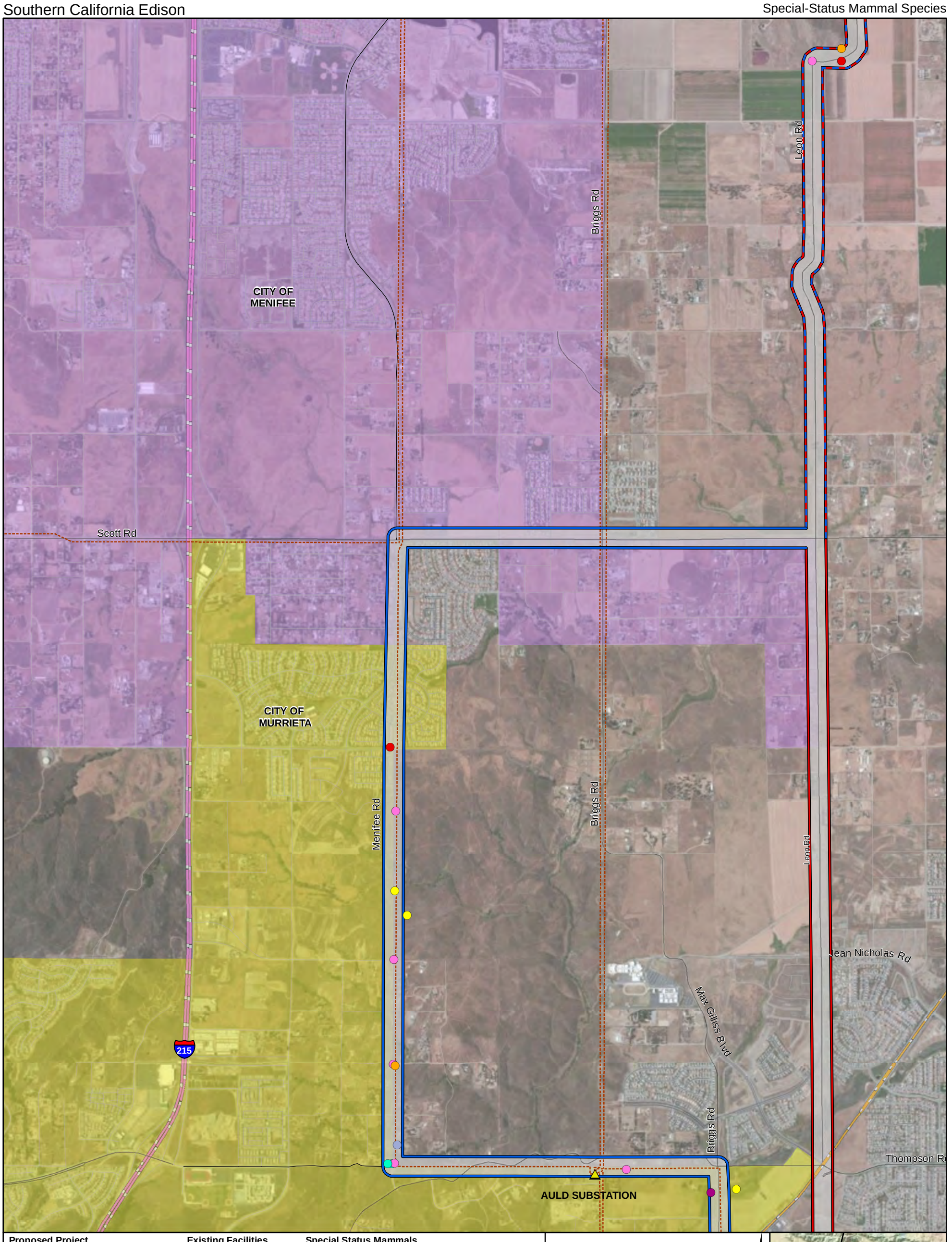


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-13

Southern California Edison

Special-Status Mammal Species



Proposed Project

- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Areas

Alternative Project

- Alternative 115 kV Subtransmission Line Study Area

Potential Material Staging Yards

- Staging Yards 1-6

Existing Facilities

- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Special Status Mammals

- Black-tailed Jackrabbit
- Long-tailed Weasel
- Mule deer
- San Diego Desert Woodrat
- San Diego pocket mouse
- Southern Grasshopper Mouse
- Stephens Kangaroon Rat

Sheet (2 of 3)

Sources:
SCE 2014;
SCE 2008;
TRC 2013;
Riverside County, 2014;
Esri 2014

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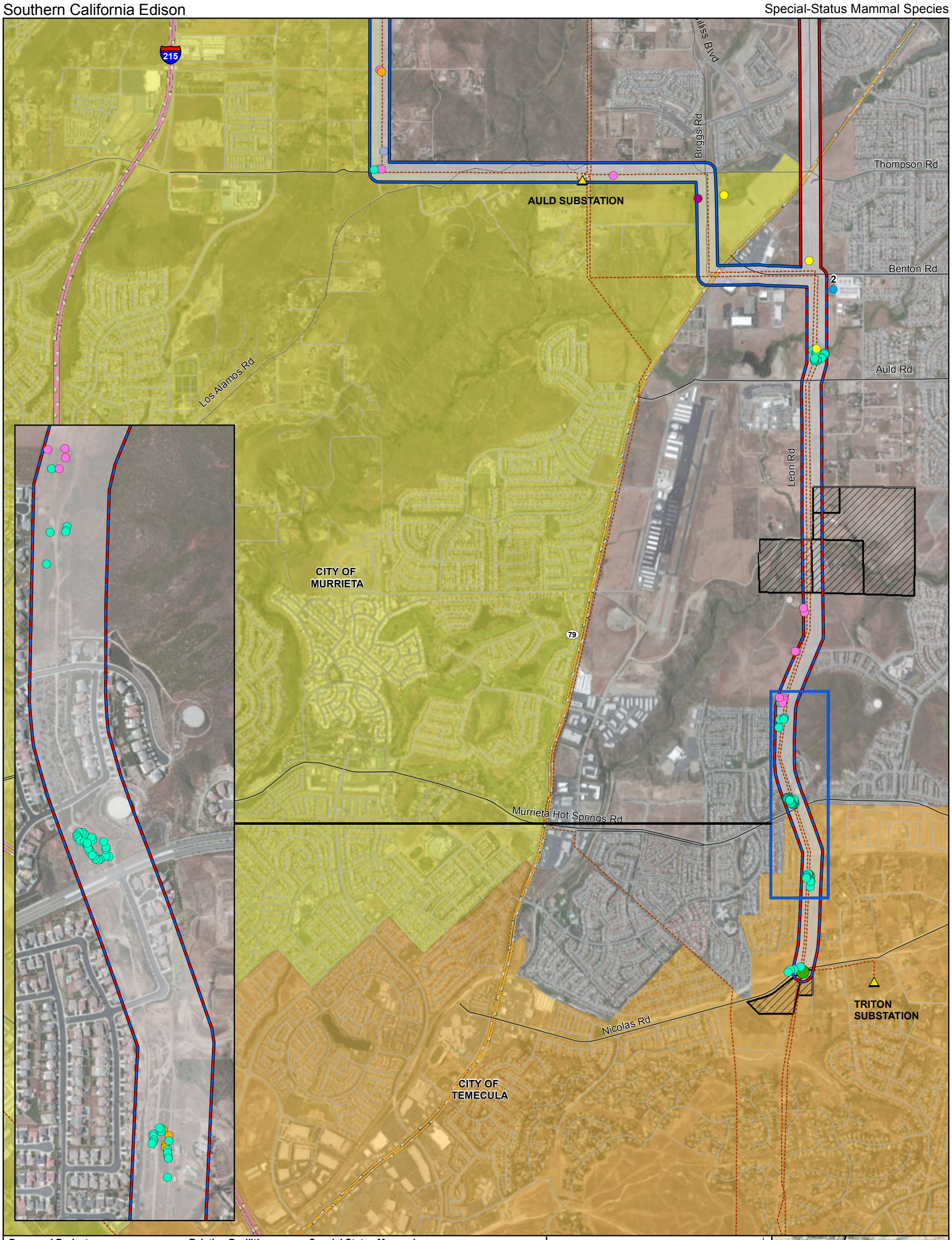
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-13**

Southern California Edison Special-Status Mammal Species



Proposed Project

- Proposed 115 kV Subtransmission Line Study Area
- Common to Both Study Areas

Alternative Project

- Alternative 115 kV Subtransmission Line Study Area

Potential Material Staging Yards

- Staging Yards 1-6

Existing Facilities

- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line
- SCE Could Not Access Properties

Special Status Mammals

- Black-tailed Jackrabbit
- Mule deer
- San Diego Desert Woodrat
- San Diego pocket mouse
- Southern Grasshopper Mouse
- Stephens Kangaroon Rat

Sheet (3 of 3)

Sources: SCE 2014; SCE 2008; TRC 2013; Riverside County, 2014; Esri 2014

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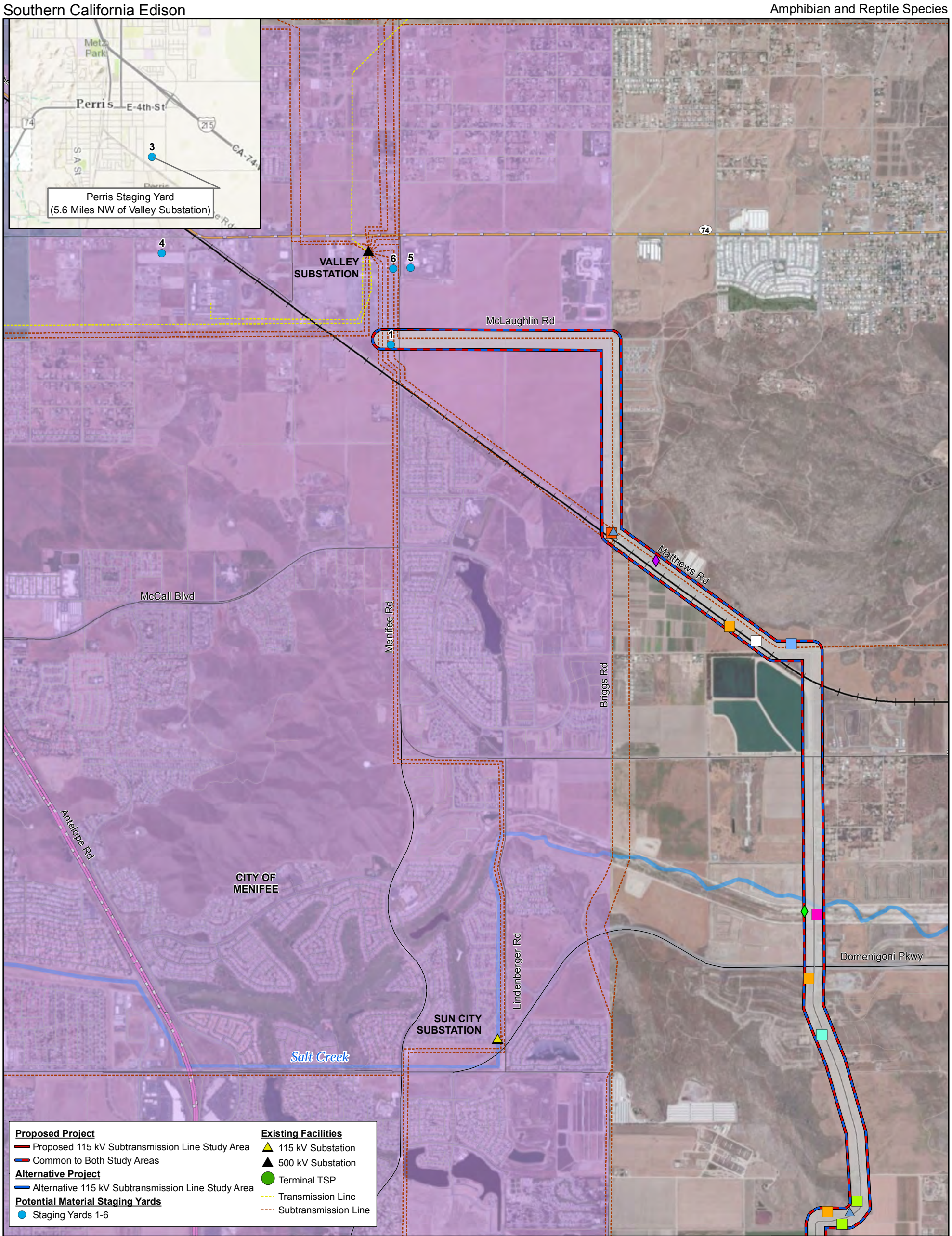


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-14

Southern California Edison

Amphibian and Reptile Species



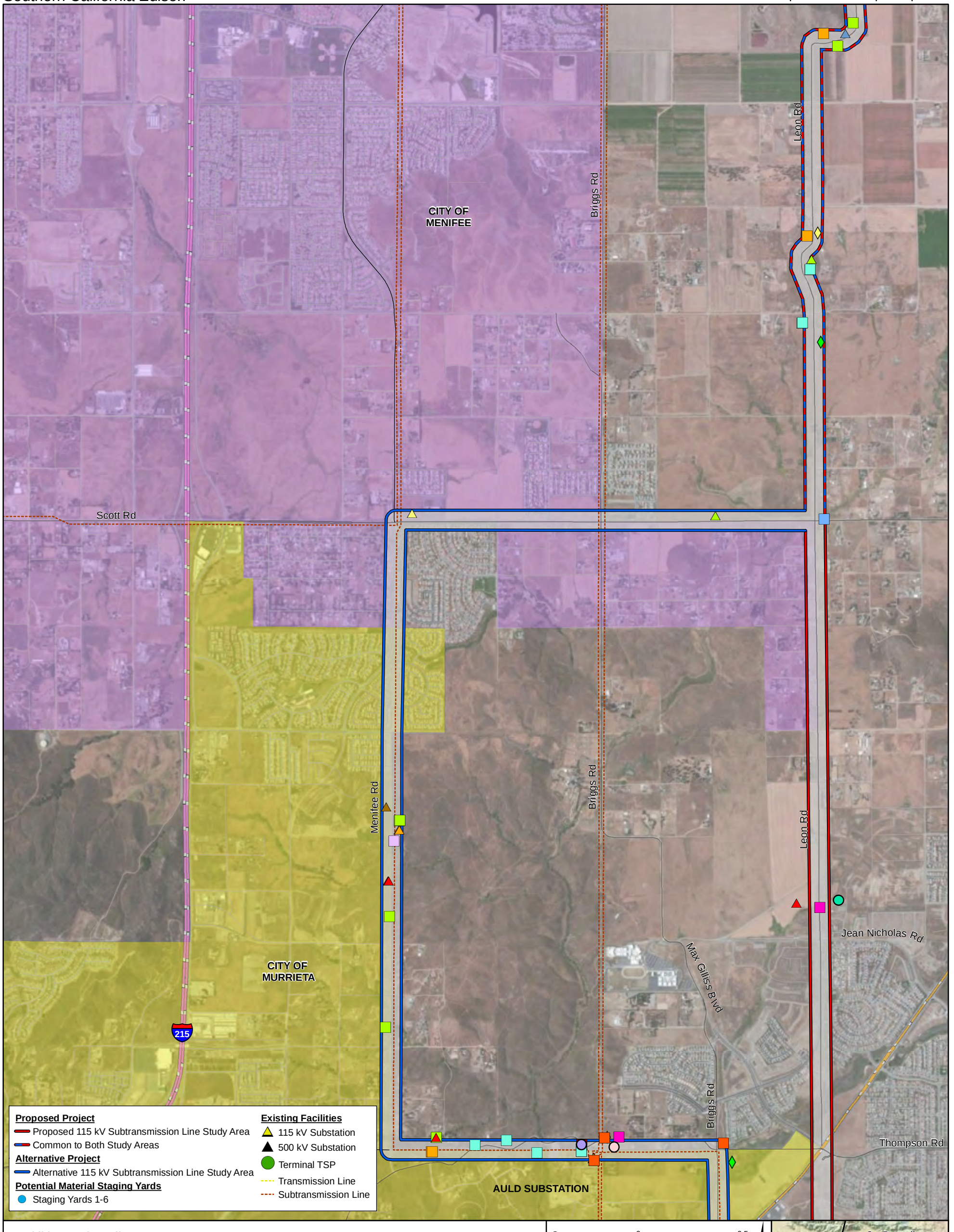
Sheet (1 of 3)

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-14

Southern California Edison

Amphibian and Reptile Species



Amphibians and Reptiles

- Alligator lizard
- California kingsnake
- California tree frog
- Coastal Western whiptail
- Glossy snake
- Gopher snake
- Granite spiny lizard
- Coast horned lizard
- Orange-throated whiptail
- Pacific salamander
- Red diamond rattlesnake
- Red-eared slider
- Side-blotched lizard
- Southern Pacific rattlesnake
- Two-striped garter snake
- Western fence lizard
- Western spadefoot
- Western toad

Sources:
SCE 2014
TRC 2013
AECOM 2014
Riverside County 2014
Esri 2014

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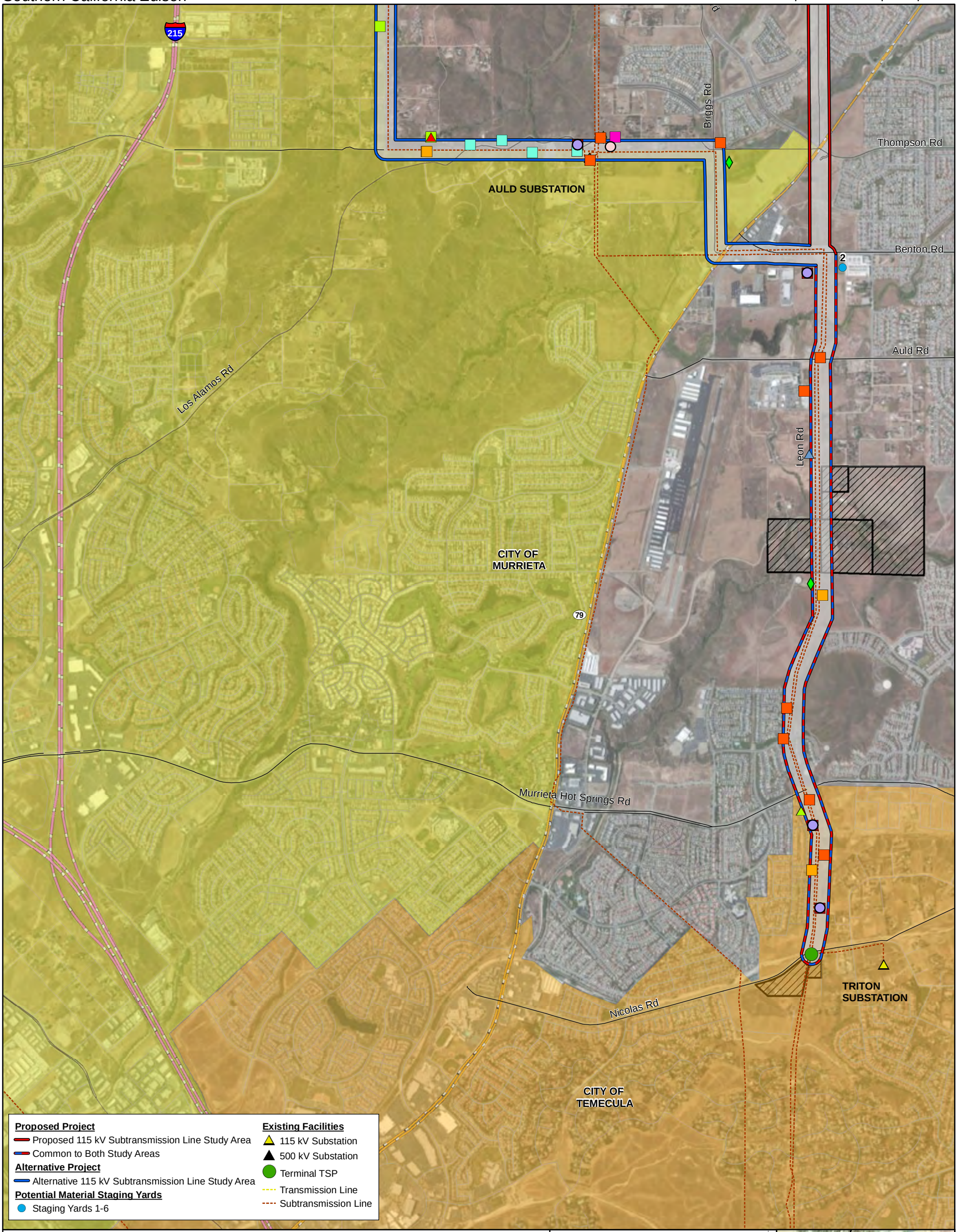
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-14**

Southern California Edison Amphibian and Reptile Species



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Least Bell's Vireo (Federally Endangered, California Endangered, WRCMSHCP Covered Species)

Potential habitat for least Bell's vireo was documented in three locations within the Proposed Project Survey Area (Figure 4.4-12 Special Status Bird Species). During least Bell's vireo protocol surveys in 2012 for Segment 1 of the Proposed Project, a singing male least Bell's vireo was detected in a small patch of willows (*Salix* spp.) and tamarisk (*Tamarix* sp.) just north of the intersection of Max Gillis Boulevard and Winchester Road (TRC, 2013). This male is believed to have been an unmated male that occupied this site for only a few weeks before moving on. Moderately suitable habitat (1.23 acres of southern willow scrub; 0.78 of an acre of mulefat scrub) for least Bell's vireo located north of the intersection of Auld and Leon Roads was surveyed in 2014 (Survey Area 1 as shown in Figure 4.4-12 Special Status Bird Species). This area is considered moderately suitable habitat for least Bell's vireo due to presence of early to mid-successional riparian habitat with dense shrub cover, though the habitat is quite narrow. One singing male least Bell's vireo was detected on three separate occasions just outside of the Proposed Project Survey Area at this location (Survey Area 1 as shown in Figure 4.4-12 Special Status Bird Species). No breeding activity was observed. Marginally suitable habitat consisting of two narrow strips of southern willow scrub (1.65 acres) was surveyed just south of the intersection of Leon Road and Van Gaale Lane (Survey Area 2 as shown in Figure 4.4-12 Special Status Bird Species). No vireo was detected at this location. Marginal habitat south of the intersection of Auld Road and Van Gaale Lane is considered to have low suitability for least Bell's vireo due to the fragmentation of riparian habitat with little structural diversity.

Southwestern Willow Flycatcher (Federally Endangered, California Endangered, WRCMSHCP Covered Species)

Within the Proposed Project Survey Area, potentially suitable habitat for willow flycatcher was documented just north of the intersection of Max Gillis Boulevard and Winchester Road; north of the intersection of Auld Road and Leon Road; and south of the intersection of Leon Road and Van Gaale Lane. During southwestern willow flycatcher protocol surveys in 2012, no willow flycatchers were detected at the location north of the intersection of Max Gillis Boulevard (TRC, 2013). During 2014 surveys for Segment 2 of the Proposed Project, habitat north of the intersection of Auld Road and Van Gaale Lane also has limited suitability for southwestern willow flycatcher due to the narrowness of riparian habitat and lack of a perennial water source. At this location, a single willow flycatcher was detected on May 16, 2014 (Figure 4.4-12 Special Status Bird Species). This individual was likely a migrant, since it was not seen on subsequent surveys and therefore is not expected to be the endangered subspecies, but a willow flycatcher (*Empidonax traillii*). Based on low habitat suitability and lack of positive observations of this species, there is a low potential for this species to breed within the Proposed Project Survey Area.

White-Tailed Kite (California Fully Protected Species, WRCMSHCP Covered Species)

Suitable breeding and foraging habitat occurs in the vicinity of the Proposed Project. White-tailed kite (*Elanus leucurus*) was documented at several locations within and adjacent to the Proposed Project, but breeding was not observed. Within Segment 1 of the Proposed Project Survey Area, white-tailed kites were detected along Briggs Road south of Matthews Road and

along Leon Road in between Simpson Road and Domenigoni Parkway (TRC, 2013). Within Segment 2 of the Proposed Project Study Area, suitable habitat for this species was detected south of the intersection of Leon Road and Benton Road (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species).

Western Burrowing Owl (CSSC, WRCMSHCP Covered Species)

Multiple CNDDB records document this species occurring within 3 miles of the Proposed Project (Figure 4.4-10 Existing Resource Data for Birds, Amphibians, and Reptiles). Potential habitat for western burrowing owl including numerous suitable burrows is widespread throughout the Proposed Project Survey Area at varying levels of suitability (high, moderate, low). Western burrowing owls were documented during 2012 surveys, and nesting pairs were identified 250 feet southeast of the intersection of Leon Road and Garbani Road (a pair of breeding burrowing owls with two juveniles) and approximately 80 feet southeast of the intersection of Leon Road and Loretta Road (a pair of breeding burrowing owls that fledged six juveniles) (TRC, 2013). Additional incidental observations of burrowing owls occurred during 2012 surveys; however, no additional nesting was documented during the 2012 surveys (Figure 4.4-12 Special Status Bird Species). No western burrowing owls were detected and no sign was observed within Segment 2 of the Proposed Project during surveys in 2014. However, this species has been previously detected during surveys conducted for the Triton Substation Project within Segment 2 of the Proposed Project Survey Area (SCE, 2008), south of the intersection of Benton Road and Leon Road (Appendix F BRA Segment 1 and Segment 2).

American Kestrel (Sensitive Raptor Species)

The American kestrel (*Falco sparverius*) was documented within the Proposed Project Survey Area during 2012 and 2014 surveys. All observations were of adults in or near cavities in poles along the SCE easement within the Proposed Project Survey Area (TRC, 2013; AECOM, 2014a). At least one adult and whitewash sign were present at each cavity (Figure 4.4-12 Special Status Bird Species).

Bell's Sage Sparrow (CSSC, WRCMSHCP Covered Species)

The Bell's sage sparrow (*Amphispiza belli belli*) is a shrub specialist, requiring large, undisturbed tracts of relatively low and open scrub vegetation on moderate to low gradient slopes. This species was not observed within the Proposed Project Survey Area, although suitable habitat for breeding and foraging does occur.

California Horned Lark (CSSC, WRCMSHCP Covered Species)

Suitable breeding and nesting habitat for California horned lark (*Eremophila alpestris actia*) occurs within the Proposed Project Survey Area. California horned larks were documented within the Proposed Project Survey Area at the edges of active agricultural fields and in the disturbed, but inactive fields within disturbed/ruderal cover type along Leon Road south of Benton Road and along Leon Road south of Auld Road (Figure 4.4-13 Special Status Bird Species). For Segment 1 of the Proposed Project, these locations occur near the Benton Road and Leon Road intersection (TRC, 2013). For Segment 2 of the Proposed Project, these locations occur along Briggs Road and near the Benton Road and Leon Road intersection, and south along Leon Road, near vireo and flycatcher Survey Area 2 (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species).

Cooper's Hawk (CSSC, WRCMSHCP Covered Species)

Stands of trees suitable for nesting for Cooper's hawk (*Accipiter cooperii*) occur within the Proposed Project Survey Area. Suitable habitat for foraging is also available throughout undeveloped habitats within the Proposed Project Survey Area. Cooper's hawk were observed within the Proposed Project Survey Area in May 2014 during least Bell's vireo surveys south of the intersection of Leon Road and Van Gaale Lane (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species).

Ferruginous Hawk (CSSC; WRCMSHCP Covered Species)

Three CNDDB records occur within 3 miles of the Proposed Project (CDFW, 2014a) (Figure 4.4-10 Existing Resource Data for Birds, Amphibians, and Reptiles). The ferruginous hawk (*Buteo regalis*) was not detected, although the species is likely to forage in the extensive grasslands, agricultural areas, and open scrub vegetation in and surrounding the Proposed Project. The Proposed Project is outside of this species' expected breeding range and therefore is not expected to nest in the Proposed Project Survey Area.

Golden Eagle (CSSC, California Fully Protected Species, WRCMSHCP Covered Species)

The golden eagle (*Aquila chrysaetos*) typically nests in highly secluded and inaccessible cliff areas, but this species will soar and forage widely over many types of terrain and vegetation. No suitable nesting habitat for golden eagles occurs within the Proposed Project Survey Area; however, foraging habitat is present and foraging in the area can occur at any time of year. Two juvenile golden eagles were observed outside of the Proposed Project Survey Area east of Leon Road near the intersection of Leon Road and Craig Road during 2012 surveys suggesting nesting in the local mountains (TRC, 2013) (Figure 4.4-12 Special Status Bird Species). Golden eagle was not detected during the raptor surveys conducted for Segment 2 of the Proposed Project in 2014.

Loggerhead Shrike (CSSC, WRCMSHCP Covered Species)

Two CNDDB records of loggerhead shrike (*Lanius ludovicianus*) occur within 3 miles of the Proposed Project (CDFW, 2014a) (Figure 4.4-10 Existing Resource Data for Birds, Amphibians, and Reptiles) and suitable foraging habitat for this species occurs within the Proposed Project Survey Area (TRC, 2013; AECOM, 2014a). In addition to open expanses, the species requires a large, dense shrub or small tree for nesting. Several pairs of loggerhead shrikes were documented in open agricultural terrain in the northern portion of the Proposed Project Survey during surveys in 2012, along Briggs Road between a private road (SCE access road/farm road) and Matthews Road, and north of the intersection of Leon Road and Simpson Road (TRC, 2013) (Figure 4.4-12 Special Status Bird Species). This species was also detected within Segment 2 of the Proposed Project, near Leon Road and Nicolas Road (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species).

Northern Harrier (CSSC, WRCMSHCP Covered Species)

CNDDB records show northern harrier (Circus cyaneus) occurring within 3 miles of Segment 2 of the Proposed Project (Figure 4.4-10 Existing Resource Data for Birds, Amphibians, and Reptiles). Suitable nonnative grassland foraging habitat is present throughout the Proposed Project Survey Area and suitable nesting habitat for this species occurs within the vicinity of the Proposed Project. Northern harriers were detected during early field activities in 2012 but not after April, suggesting this species may only occur within the Proposed Project Survey Area in winter (TRC, 2013) (Figure 4.4-12 Special Status Bird Species). This species was not observed during raptor surveys in 2014 (AECOM, 2014a).

Prairie Falcon (CSSC, WRCMSHCP Covered Species).

No suitable nesting habitat (secluded and inaccessible cliffs) for prairie falcon (*Falco mexicanus*) occurs within the Proposed Project Survey Area; however, prairie falcons have a high potential to forage within nonnative grassland habitats that occur throughout the Proposed Project Survey Area. One Prairie falcon was observed during 2012 surveys for Segment 1 of the Proposed Project; however, this location was not recorded (TRC, 2013). No prairie falcons were detected during surveys for Segment 2 of the Proposed Project in 2014 (AECOM, 2014a). No suitable nesting habitat occurs within the Proposed Project Survey Area; therefore, this species is not expected to nest in the area.

Red-Shouldered Hawk (sensitive nest sites) and Red-Tailed Hawk (sensitive nest sites)

The red-shouldered hawk (*Buteo lineatus*) was observed adjacent to the Proposed Project buffer, and suitable nesting habitat is present. Red-tailed hawks were observed frequently throughout the Proposed Project Survey Area foraging in the open grasslands, agricultural fields, and disturbed/ruderal areas. Nineteen active nests were observed during surveys for Segment 1 of the Proposed Project (TRC, 2013) (Figure 4.4-12 Special Status Bird Species) in 2012. No nests were documented in Segment 2 of the Proposed Project during raptor surveys in 2014 (AECOM, 2014a); however, red-tailed hawks were observed on numerous occasions during burrowing owl surveys in 2014 (these were not mapped since the red-tailed hawks were not observed nesting

within the Proposed Project). Both species are expected to nest within the Proposed Project Study Area.

Southern California Rufous-Crowned Sparrow (CSSC, WRCMSHCP Covered Species)

The southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) was found to occupy patches of Diegan coastal sage scrub north of Benton Road within the Proposed Project (Figure 4.4-4 Vegetation and Other Land Cover Types) in 2012 (TRC, 2013). Therefore individual occurrences were not mapped. This species was not detected during 2014 field surveys of Segment 2 of the Proposed Project; however, this species has a high potential to occur within scrub and chaparral habitats throughout the entire Proposed Project Survey Area (AECOM, 2014a).

Tricolored Blackbird (CSSC, WRCMSHCP Covered Species)

Moderately suitable nesting habitat for the tricolored blackbird (*Agelaius tricolor*) occurs in the freshwater marshes at the central portion of the Proposed Project Survey Area (Figure 4.4-10 Existing Resource Data for Birds, Amphibians, and Reptiles). Tricolored blackbirds were detected in one location within riparian scrub habitat associated with the corridor south of Benton Road, along Leon Road, in Segment 2 of the Proposed Project Survey Area during least Bell's vireo surveys in 2014 (Figure 4.4-12 Special Status Bird Species) (AECOM, 2014a). This species was not observed in any other area of the Proposed Project. Due to observation and presence of suitable habitat, there is moderate potential for this species to nest within the Proposed Project Survey Area.

Stephens' Kangaroo Rat (Federally Endangered, California Threatened, CSSC, WRCMSHCP Covered Species)

Suitable habitat for Stephen's kangaroo rat occurs throughout the Proposed Project Study Area. Stephens' kangaroo rats were detected in several locations during trapping surveys in grassland and open coastal sage scrub in 2012 and 2014 (TRC, 2013; AECOM, 2014a) (Figure 4.4-13 Special Status Mammal Species) in Segment 1 of the Proposed Project and Segment 2 of the Proposed Project.

Northwestern San Diego Pocket Mouse (CSSC, WRCMSHCP Covered Species)

Northwestern pocket mouse (*Chaetodipus fallax fallax*) occurs in dry native habitats. This species was detected north of Benton Road within the Proposed Project Study Area during trapping surveys in 2012 (TRC, 2013). This species was captured in multiple locations within disturbed/ruderal cover type and scrub habitats during 2014 small mammal trapping surveys in Segment 2 of the Proposed Project (AECOM, 2014a). These detections occurred along Leon Road north of Auld Road, north of Murrieta Hot Springs Road, and north of Nicolas Road (Figure 4.4-13 Special Status Mammal Species).

Los Angeles Pocket Mouse (CSSC, WRCMSHCP Covered Species)

Los Angeles pocket mouse is a CSSC and WRCMSHCP-covered species. This small nocturnal mammal occurs in sandy, friable soils within a variety of open, arid vegetation types in the interior regions of cismontane southern California. This species is known to occur within the vicinity of the Proposed Project Study Area from USFWS and CNDDB records (Figure 4.4-11 Existing Resource Data for Invertebrates and Mammals). Suitable habitat for this species is minimal within the Proposed Project Study Area; however, this species was detected just north of Matthews Road immediately adjacent to the Proposed Project during trapping surveys in 2012 (TRC, 2013).

Dulzura Pocket Mouse (CSSC)

Dulzura pocket mouse (Chaetodipus californicus femoralis) is associated with chaparral and sometimes in desert grassland areas adjacent to scrub habitats on chaparral-covered slopes in coastal or montane regions. This species was not detected during trapping surveys; however, suitable habitat is present throughout the Proposed Project Study Area; therefore, this species has a moderate potential to occur within the Proposed Project Study Area.

San Diego Desert Woodrat (CSSC, WRCMSHCP Covered Species)

The San Diego desert woodrat (*Neotoma lepida intermedia*) is secretive and nocturnal, but is detectable indirectly by its conspicuous "midden" shelters constructed of twigs and other plant materials. This relatively large rodent occupies various types of shrub-dominated vegetation. San Diego desert woodrats were detected in grassland and open coastal sage scrub at several locations throughout the Proposed Project Study Area (AECOM, 2014a) (Figure 4.4-13 Special Status Mammal Species). These locations occurred within Segment 2 of the Proposed Project, along Leon Road, north of Nicolas Road. This species was not detected within Segment 1 of the Proposed Project Study Area (TRC, 2013).

Southern Grasshopper Mouse (CSSC)

Unlike most other rodents of its size, the southern grasshopper mouse (*Onychomys torridus ramona*) is primarily a predator of arthropods and small vertebrates (Ingles, 1965; Jameson, 2004). This small mouse occupies arid, shrub-dominated or herbaceous habitats with loose soils in the lowlands on both sides of the desert divide mountains. Suitable habitat for this species is present within the Proposed Project Study Area. Although this species is expected to occur in any area of open habitat, it was not detected within the Proposed Project Study Area during trapping surveys (TRC, 2013; AECOM, 2014a).

San Diego Black-Tailed Jackrabbit (CSSC, WRCMSHCP Covered Species)

The San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) is locally common in large expanses of relatively flat, openly vegetated terrain supporting low human density. San Diego black-tailed jackrabbits were observed in grassland, agriculture, and open coastal sage scrub in several locations within the Proposed Project Study Area (TRC, 2013; AECOM, 2014a). This species was detected within Segment 1 of the Proposed Project Study Area along Briggs Road

(north of Matthews Road), near the intersection of Matthews Road and Grand Avenue, and near the intersection of Leon Road and Briggs Road. Within Segment 2 of the Proposed Project, San Diego black-tailed jackrabbit was detected along Leon Road, north of Auld Road (Figure 4.4-13 Special Status Mammal Species).

Coast Horned Lizard (CSSC, WRCMSHCP Covered Species)

CNDDB records and known records within the Triton Substation Project have documented coast horned lizard (*Phrynosoma coronatum*) within the Proposed Project Survey Area (CDFW, 2014a; SCE, 2008) (Figure 4.4-10 Existing Resource Data for Birds, Amphibians, and Reptiles). In addition, coast horned lizards were documented within coastal sage scrub patches north of the intersection of Leon Road and Holland Road within the Proposed Project Survey Area during surveys in 2012 (TRC, 2013) (Figure 4.4-14 Amphibian and Reptile Species). This species was not detected within Segment 2 of the Proposed Project (AECOM, 2014a). Due to the presence of suitable habitat and species records, this species is expected to have a high potential to occur within the Proposed Project Survey Area.

Coastal Western Whiptail (WRCMSHCP Covered Species)

Coastal western whiptail (*Aspidoscelis tigris multiscutatus*) is active during the warmest months of year, when his large, wary, swift lizard can be seen foraging in vegetation openings, typically near vegetation cover that is quickly sought when disturbed. It occupies a range of open, dry vegetation types from ruderal road edges and agricultural margins to low, sparse grassland, to mature coastal sage scrub, chaparral, and big sagebrush scrub. Coastal western whiptails were documented in grassland and coastal sage scrub throughout the Proposed Project Survey Area (Figure 4.4-14 Amphibian and Reptile Species).

Orange-Throated Whiptail (WRCMSHCP Covered Species)

Orange-throated whiptail (*Aspidoscelis hyperythra*) inhabits low-elevation coastal scrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill hardwood habitats (Bostic, 1965). The species is likely more widespread in short grass, open scrub, and disturbed areas, but it was not detected during surveys. Due to the presence of suitable habitat, this species has a high potential to occur within scrub and grassland habitats within the Proposed Project Survey Area.

Silvery Legless Lizard (CSSC)

CNDDB records did not show occurrences of silvery legless lizard (*Anniella pulchra pulchra*) within 3 miles of the Proposed Project (Figure 4.4-10 Existing Resource Data for Birds, Amphibians, and Reptiles). This lizard is a cryptic, burrowing species that occurs over a wide geographic range, from the coastline to mountain foothills. Due to this habit, legless lizards are generally very hard to detect, and it was not detected during surveys. However, this species has a moderate likelihood of occurrence in areas of loose, sandy soil within the Proposed Project Survey Area (TRC, 2013; AECOM, 2014a).

San Diego Banded Gecko (WRCMSHCP Covered Species)

CNDDB records did not show occurrences of San Diego banded gecko (*Coleonyx variegatus abbottii*) within 3 miles of the Proposed Project (Figure 4.4-10 Existing Resource Data for Birds, Amphibians, and Reptiles). This cryptic, nocturnal species was not detected during surveys but is likely to occur in large boulder outcrops scattered throughout the Proposed Project Survey Area (TRC, 2013; AECOM, 2014a).

Red Diamond Rattlesnake (CSSC, WRCMSHCP Covered Species)

The red diamond rattlesnake (*Crotalus ruber*) is found primarily in coastal sage scrub but also occurs in chaparral, woodland, grassland, and desert habitat from the Morongo Valley west to the coast and south along the peninsular ranges to mid Baja California.. It prefers rocky areas, moderately open vegetation and requires rodent burrows, cracks in rocks, or other surface cover objects for shelter (Klauber, 1972). Red diamond rattlesnake was not documented within the Proposed Project during field surveys (TRC, 2013; AECOM 2014) however, suitable habitat is present throughout the Proposed Project Survey Area (Figure 4.4-14 Amphibian and Reptile Species).

Two-Striped Garter Snake (CSSC)

Two-striped garter snake (*Thamnophis hammondii*) requires watercourses with permanent or persistent fresh water, often with rocky beds and riparian growth (Jennings and Hayes, 1994). This species was documented west of the Proposed Project north of the intersection of Leon Road and Jean Nicholas Road (TRC, 2013) (Figure 4.4-14 Amphibian and Reptile Species). As suitable habitat for this species occurs in restricted locations along the Proposed Project Survey Area, the species is expected to occur.

Western Spadefoot Toad (CSSC, WRCMSHCP Covered Species)

Western spadefoot toad (*Spea hammondii*) was documented within the Triton Substation Project and is recorded in CNDDB within 1 mile of the Proposed Project (SCE, 2008; CDFW, 2014a) (Figure 4.4-10 Existing Resource Data for Special Status Plants). This species has a high potential to occur within the temporary ponded areas and riparian vegetative communities within the Proposed Project Survey Area, and was observed during surveys in 2012 within Segment 1 of the Proposed Project (TRC, 2013) (Figure 4.4-14 Amphibian and Reptile Species).

Quino Checkerspot Butterfly (Federally Endangered, WRCMSHCP Covered Species)

This species has been detected in several locations within 3 miles of the Proposed Project (CDFW, 2014a) (Figure 4.4-11 Existing Resource Data for Invertebrates and Mammals). Suitable coastal sage scrub, nonnative grassland, and chaparral habitat for this species is present throughout the Proposed Project Study Area (Figure 4.4-4 Vegetation and Other Land Cover Types). Habitat within the Proposed Project Study Area has been described in the WRCMSHCP for conservation for both core habitat (Proposed Core 2) and linkages to other Quino checkerspot butterfly habitat (Proposed Constrained Linkage 18 and conservation of Existing Constrained Linkage E).

Surveys for Quino checkerspot butterfly were not conducted during the 2012 flight season for Segment 1 of the Proposed Project. However, habitat assessments for the endangered Quino checkerspot butterfly were conducted in 2012 in Segment 1 of the Proposed Project Study Area. Protocol-level surveys for Quino checkerspot butterfly were conducted for Segment 1 of the Proposed Project during the spring 2013 season by TRC. However, potential habitat, including the presence of dot-seed plantain (*Plantago erecta*), was documented within the southern portions of Segment 1 of the Proposed Project (Figure 4.4-15 Potential Quino Checkerspot Butterfly Habitat). Approximately 15 acres of suitable habitat was mapped and a survey was conducted during the spring 2013 season, and larval host plants were detected within Segment 1 of the Proposed Project (Figure 4.4-15 Potential Quino Checkerspot Butterfly Habitat); however no Quino checkerspot butterfly were detected.

Habitat assessments for Quino checkerspot butterfly were conducted for Segment 2 of the Proposed Project by AECOM biologists in 2014. Quino checkerspot butterfly is a species considered adequately conserved by the WRCMSHCP reserve assembly; therefore, protocol surveys for this species are not required; instead, potential habitat within Segment 2 of the Proposed Project was mapped by AECOM biologists in 2014.

As a result of the habitat assessment, approximately 132 acres of potentially suitable habitat within Segment 2 of the Proposed Project was delineated (Figure 4.4-15 Potential Quino Checkerspot Butterfly Suitable Habitat). At the time of the 2014 habitat assessment, no larval host plants were detected, but nectar plants were observed.

Due to the presence of approximately 147 acres of suitable habitat within the Proposed Project Study Area, this species has a high potential to occur within the Proposed Project.

Riverside Fairy Shrimp (Federally Endangered, WRCMSHCP Covered Species) and Vernal Pool Fairy Shrimp (Federally Threatened, WRCMSHCP Covered Species)

CNDDB records document Riverside fairy shrimp within 3 miles of the Proposed Project and marginally suitable habitat in the form of scattered disturbed basins is present within the Proposed Project Study Area. Wet and dry season protocol surveys for Riverside fairy shrimp were conducted for Segment 1 of the Proposed Project and Segment 2 of the Proposed Project; however, none of the fairy shrimp collected were identified as listed species. Fairy shrimp detected during surveys included the nonlisted common Lindahl's fairy shrimp (*Branchinecta lindahli*); detail on results is provided within the BRA prepared for Segment 2 of the Proposed Project (Appendix F BRA Segment 1 and Segment 2). Due to the level of disturbance and negative findings, these species are considered to have a low potential to occur within the Proposed Project Study Area.

4.4.1.6 Wildlife Corridors

Wildlife spatial movements are typically associated with several functions, such as dispersal (e.g., juvenile animals from natal areas or individuals extending range distributions), seasonal migration, and movements related to home ranges (e.g., foraging, defending territories, searching for mates, breeding areas, or cover).

The following definitions of areas conducive to wildlife movement are provided as a background to the discussion.

Travel Route – A landscape feature (such as ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and to provide access to necessary resources (e.g., water, food, cover, den sites).

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-15

Southern California Edison

Potential Quino Checkerspot Butterfly Habitat



Proposed Project

- Proposed 115 kV Subtransmission Line Survey Area
- Common to Both Survey Areas

Alternative Project

- Alternative 115 kV Subtransmission Line Survey Area

Potential Material Staging Yards

- Staging Yards 1-6

- Potential Habitat for Quino Checkerspot Butterfly

Existing Facilities

- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

Sheet (1 of 12)

Sources:
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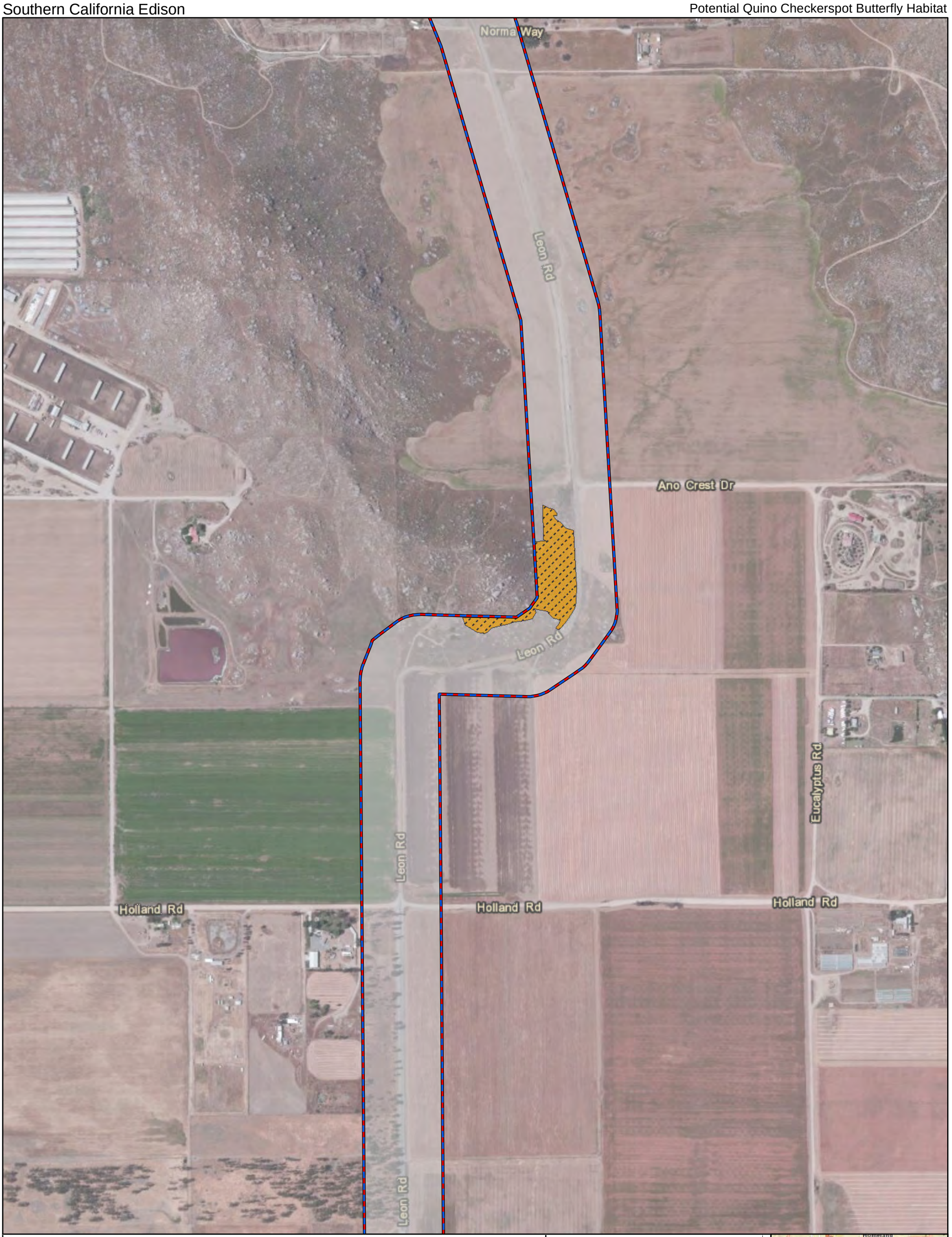


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-15

Southern California Edison

Potential Quino Checkerspot Butterfly Habitat



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Alternative Project

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Existing Facilities

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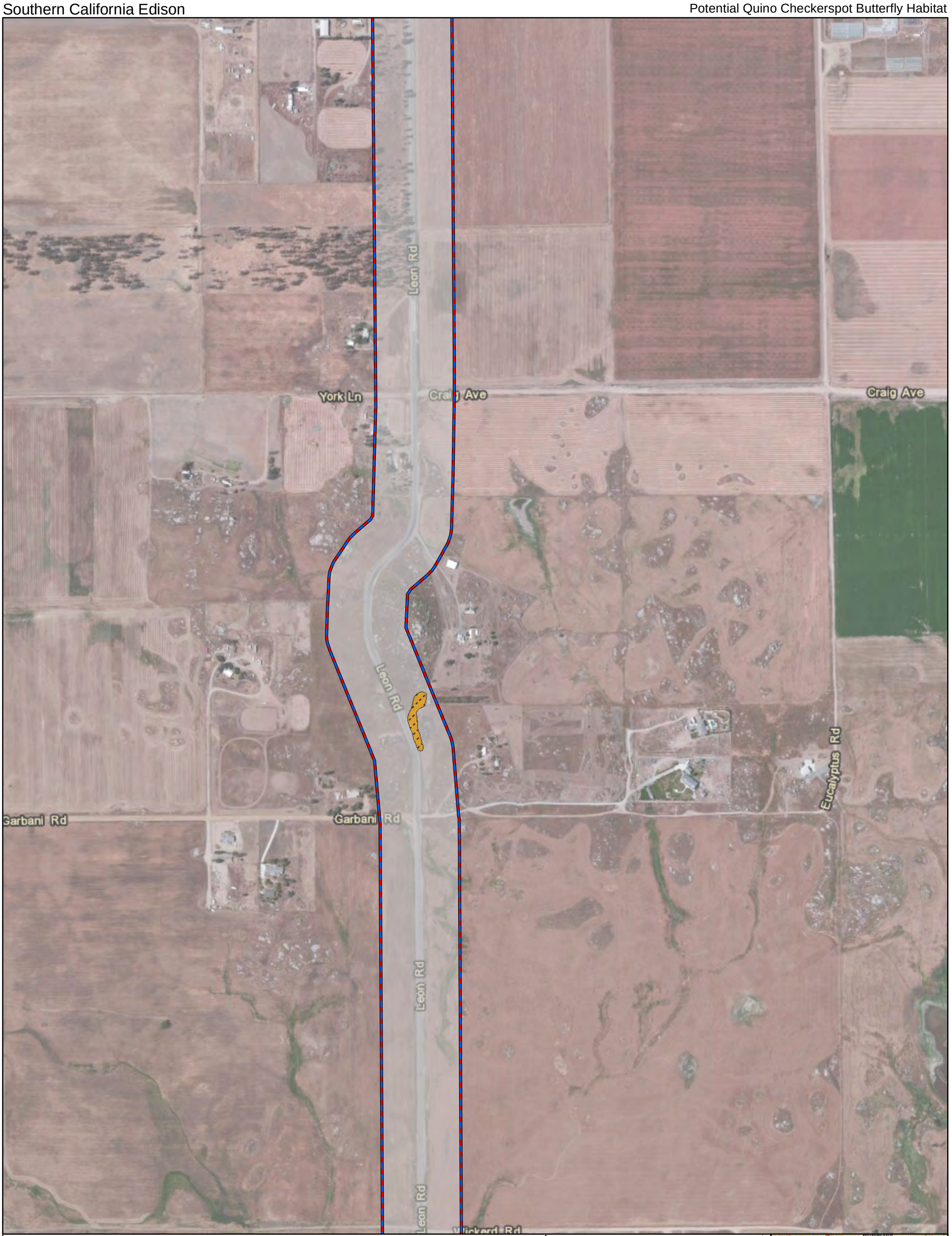


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-15

Southern California Edison

Potential Quino Checkerspot Butterfly Habitat



Proposed Project

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Alternative Project

- Alternative 115 kV Subtransmission Line Survey Area

Potential Material Staging Yards

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- Potential Habitat for Quino Checkerspot Butterfly

Existing Facilities

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- Subtransmission Line

Sheet (3 of 12)

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-15

Southern California Edison

Potential Quino Checkerspot Butterfly Habitat



Proposed Project

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Existing Facilities

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Sheet (4 of 12)

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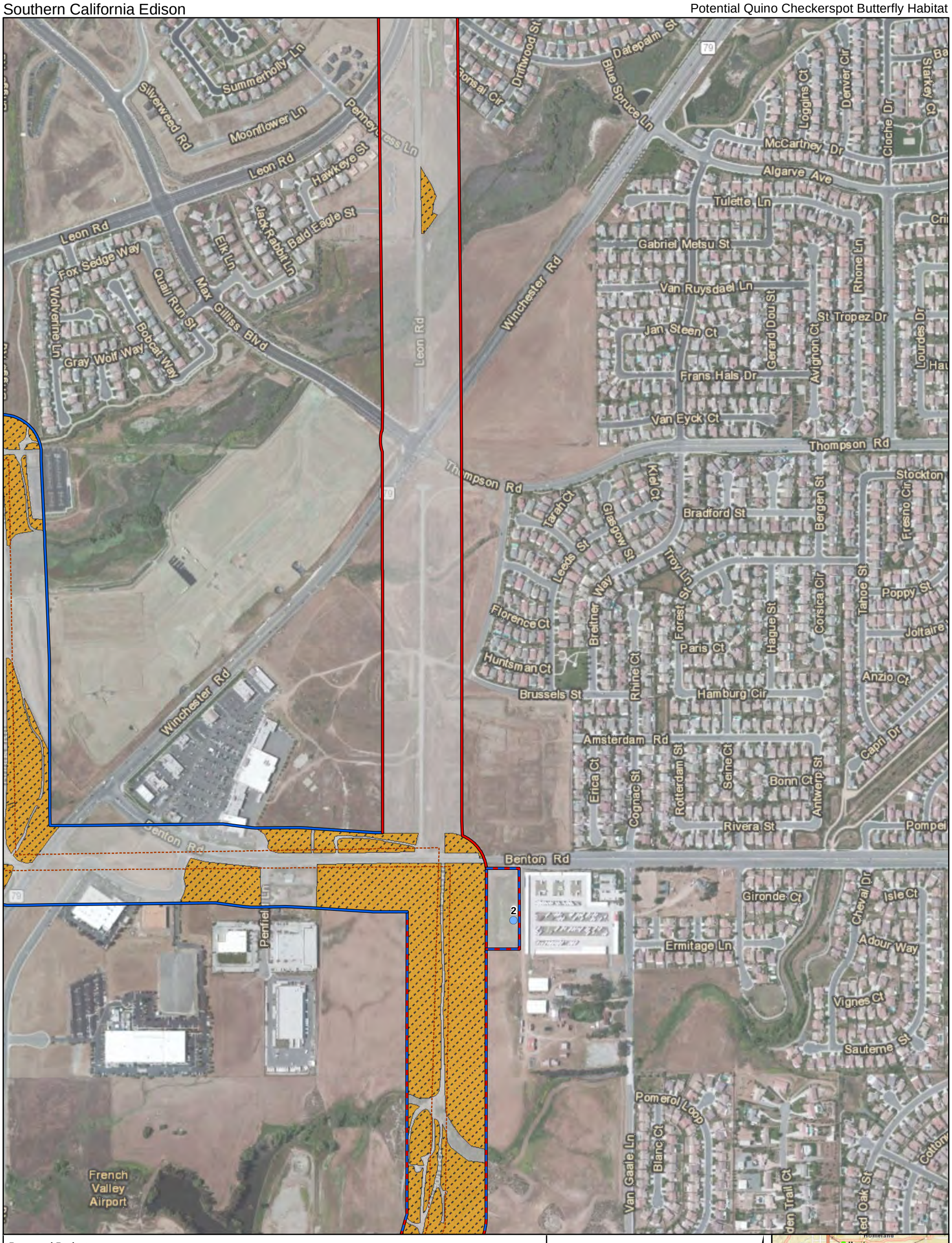
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-15**

Southern California Edison

Potential Quino Checkerspot Butterfly Habitat



Proposed Project

- Proposed 115 kV Subtransmission Line Survey Area
- Common to Both Survey Areas

Alternative Project

- Alternative 115 kV Subtransmission Line Survey Area

Potential Material Staging Yards

- Staging Yards 1-6

- Potential Habitat for Quino Checkerspot Butterfly

Existing Facilities

- 115 kV Substation
- 500 kV Substation
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- Subtransmission Line

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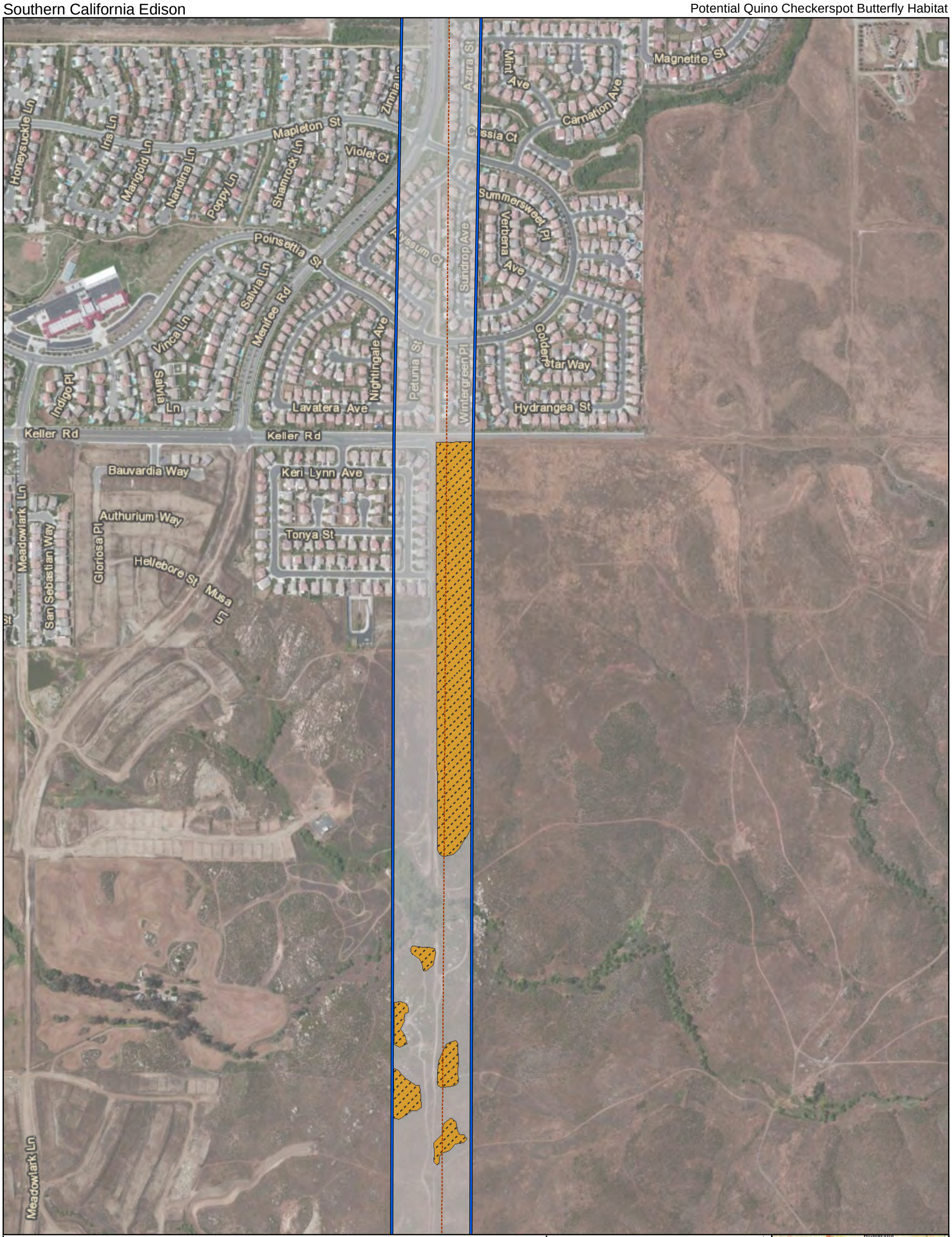


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-15

Southern California Edison

Potential Quino Checkerspot Butterfly Habitat



Proposed Project

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Alternative Project

- Alternative 115 kV Subtransmission Line Survey Area

Potential Material Staging Yards

- Staging Yards 1-6

- Potential Habitat for Quino Checkerspot Butterfly

Existing Facilities

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- Subtransmission Line

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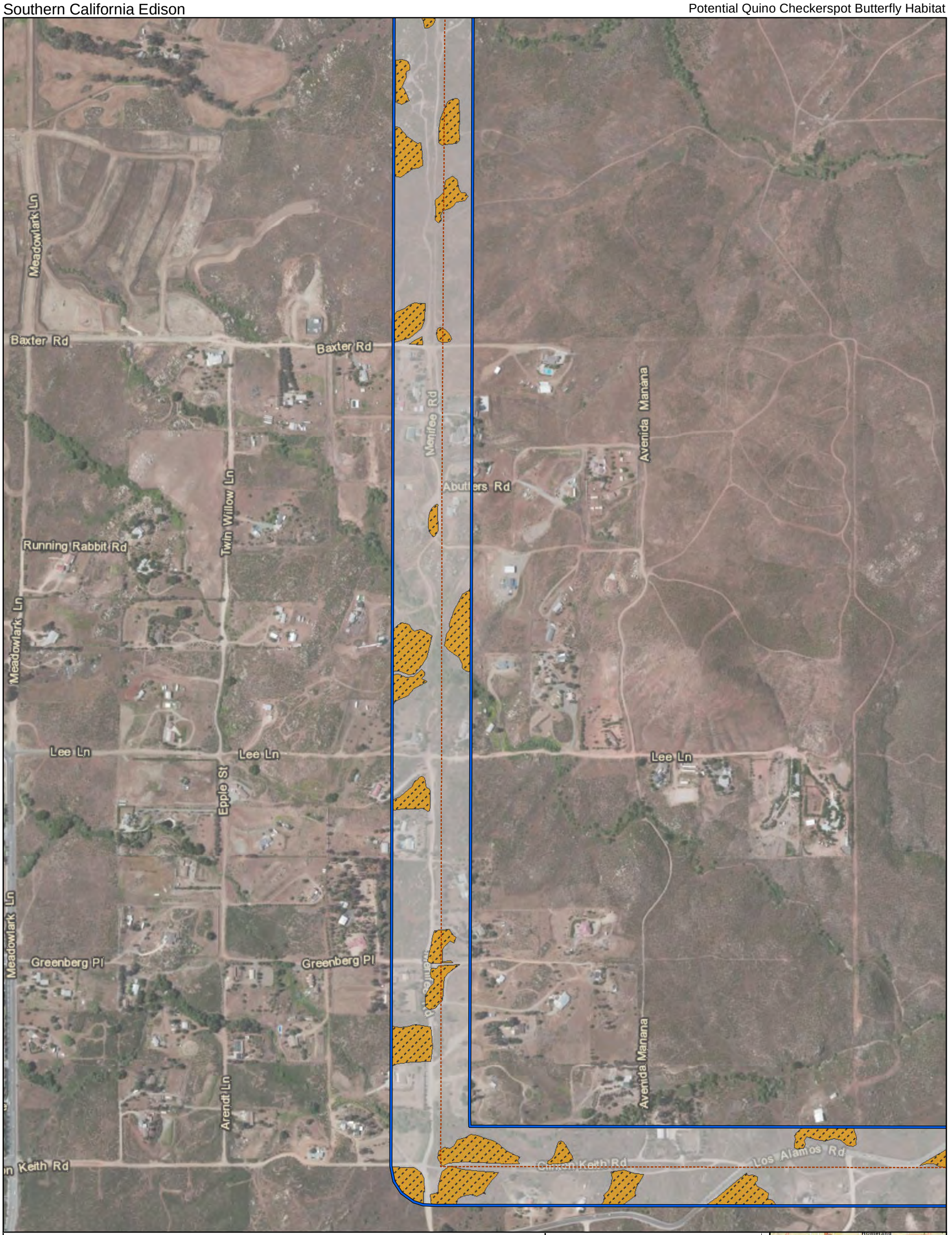


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-15

Southern California Edison

Potential Quino Checkerspot Butterfly Habitat



Proposed Project

- Proposed 115 kV Subtransmission Line Survey Area
- Common to Both Survey Areas

Alternative Project

- Alternative 115 kV Subtransmission Line Survey Area

Potential Material Staging Yards

- Staging Yards 1-6

- Potential Habitat for Quino Checkerspot Butterfly

Existing Facilities

- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

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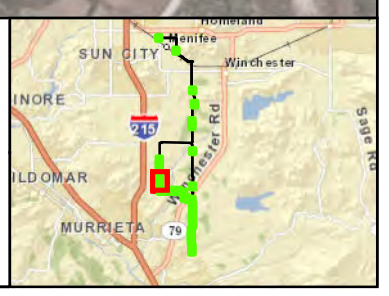
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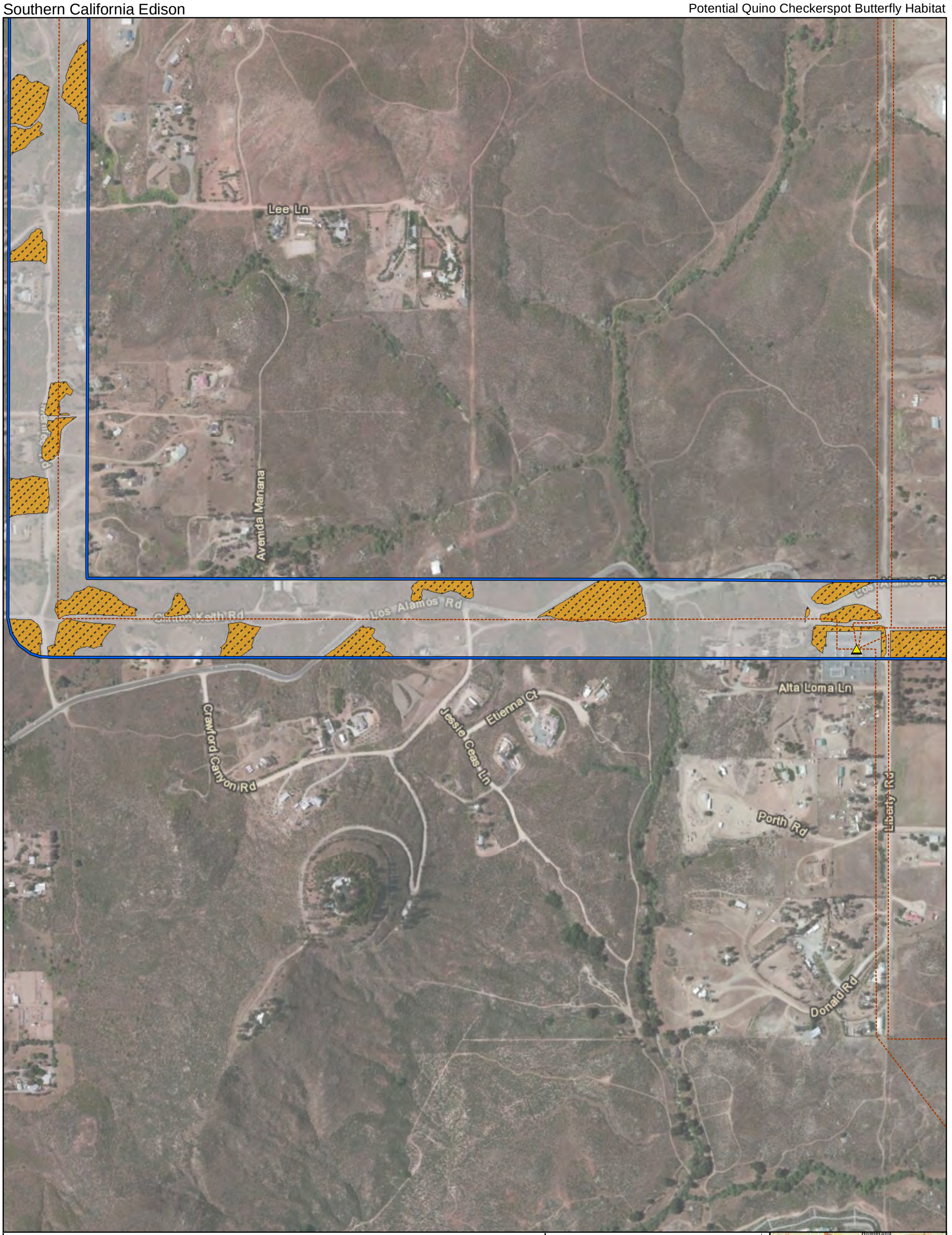


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-15

Southern California Edison

Potential Quino Checkerspot Butterfly Habitat



Proposed Project

- Proposed 115 kV Subtransmission Line Survey Area
- Common to Both Survey Areas

Alternative Project

- Alternative 115 kV Subtransmission Line Survey Area

Potential Material Staging Yards

- Staging Yards 1-6

- Potential Habitat for Quino Checkerspot Butterfly

Existing Facilities

- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

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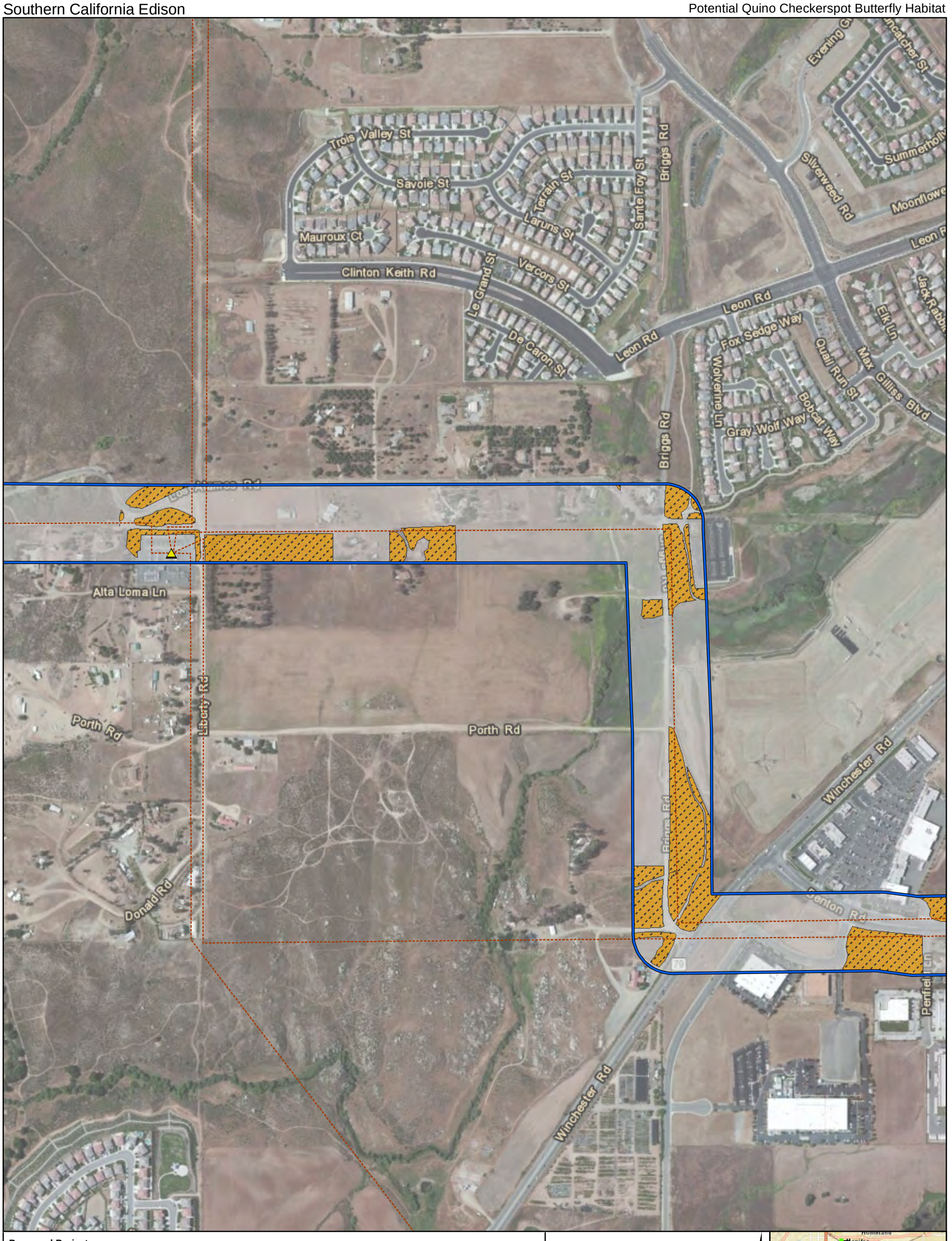
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-15**

Southern California Edison Potential Quino Checkerspot Butterfly Habitat



Proposed Project

- Proposed 115 kV Subtransmission Line Survey Area
- Common to Both Survey Areas

Alternative Project

- Alternative 115 kV Subtransmission Line Survey Area

Potential Material Staging Yards

- Staging Yards 1-6
- Potential Habitat for Quino Checkerspot Butterfly

Existing Facilities

- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

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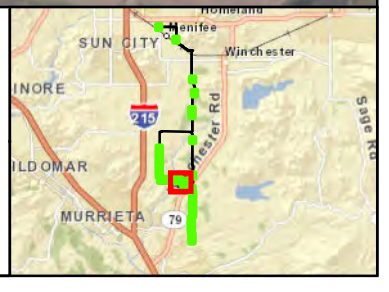
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-15**

Southern California Edison

Potential Quino Checkerspot Butterfly Habitat



Proposed Project

- Proposed 115 kV Subtransmission Line Survey Area
- Common to Both Survey Areas

Alternative Project

- Alternative 115 kV Subtransmission Line Survey Area

Potential Material Staging Yards

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- Potential Habitat for Quino Checkerspot Butterfly

Existing Facilities

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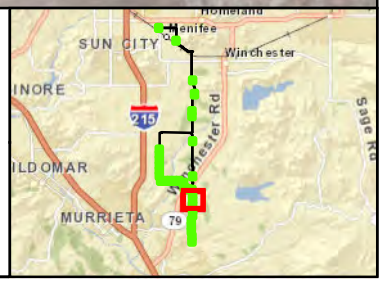
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-15

Southern California Edison

Potential Quino Checkerspot Butterfly Habitat



Proposed Project

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Alternative Project

- Alternative 115 kV Subtransmission Line Survey Area

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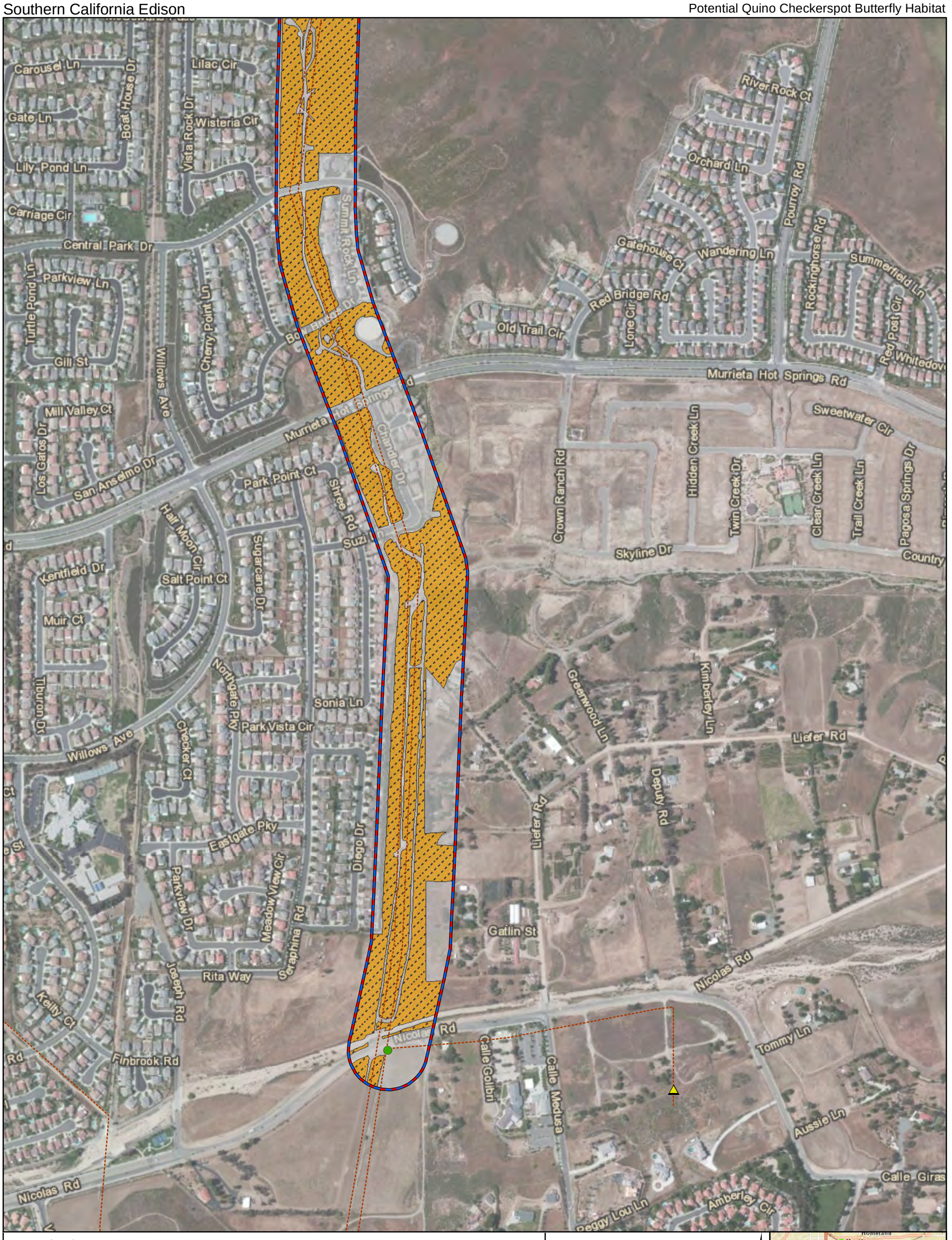
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-15**

Southern California Edison

Potential Quino Checkerspot Butterfly Habitat



Proposed Project

- Proposed 115 kV Subtransmission Line Survey Area
- Common to Both Survey Areas

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Potential Material Staging Yards

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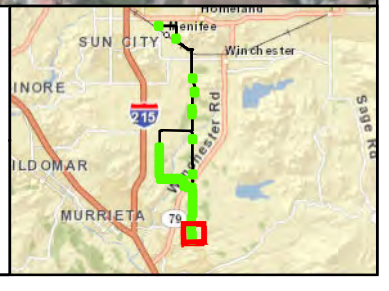
Sources:
SCE, 2014;
TRC 2013;
AECOM 2014;
Aerial Image:
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Wildlife Corridor – A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bound by land uses unsuitable for wildlife. Larger, landscape-level corridors often referred to as "habitat or landscape linkages," can provide both transitory and residential habitat for a variety of species.

Wildlife Crossing – A small, narrow area or structure, relatively short in length and generally constricted in nature that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movements. Crossings can be constructed and can include culverts, underpasses, bridges, and tunnels. These often represent "choke points" along a movement corridor, and may concentrate wildlife movement, possibly increasing risk of predation.

The Proposed Project is located in a landscape that is currently dedicated primarily to agricultural and passive preservation land uses, and, therefore, is relatively unconstrained in terms of wildlife movement. Much of the surrounding area has been converted to agricultural uses, and areas of dense human development and infrastructure are currently small and discontinuous. The mosaic of vegetation and habitats is generally conducive to migratory and dispersal movements by animals in terms of presenting few significant barriers and hazards. Major watercourses are not tightly constrained by human development, are generally allowed to flow on the surface (as opposed to being channelized), and are intersected by relatively few major roadways. The most heavily traveled roadways in the local landscape, such as State Route 79 (SR-79) and Domenigoni Parkway, are relatively few, are only two to four lanes wide, and are generally free of peripheral barriers to wildlife movement such as fences and walls. Interstate (I) 215, west of the Proposed Project, is a major freeway that likely constitutes a significant barrier and hazard to wildlife movement.

This assessment of the capacity for various spatial movements by ranging animals (i.e., daily patterns, dispersal, and migration) is based on field studies and other observations for the general landscape surrounding the Proposed Project. Based on the presence of populations of several animal species requiring either large tracts of unfragmented, year-round habitat (e.g., burrowing owl, sage sparrow, Stephens' kangaroo rat, loggerhead shrike, long-tailed weasel [*Mustela frenata*], and black-tailed jackrabbit) or wide, generally unobstructed foraging areas (e.g., golden eagle, ferruginous hawk), it was concluded that the surrounding landscape is relatively unconstrained for wildlife movement.

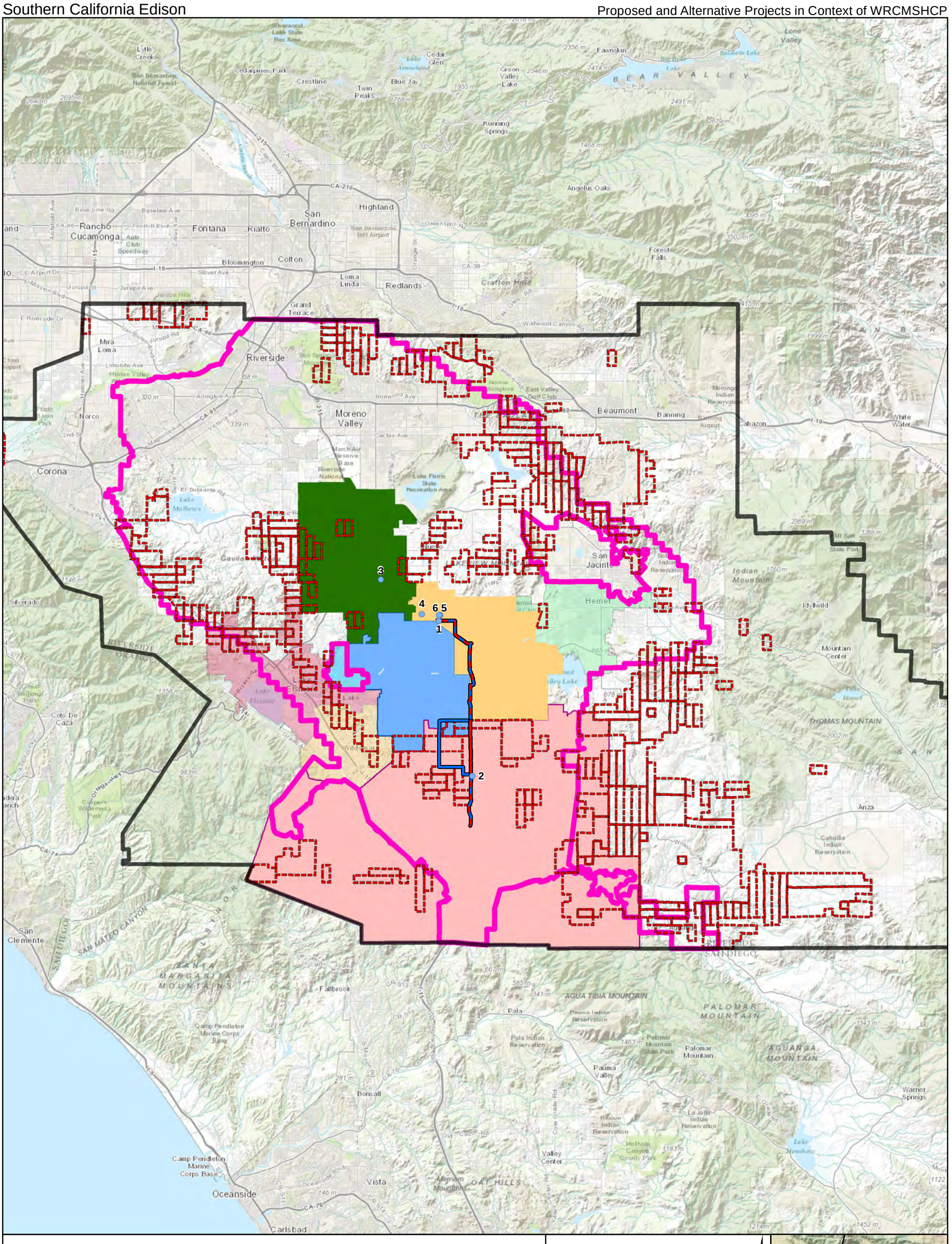
The Proposed Project occurs within or adjacent to Biological Core Area 2 recognized by the WRCMSHCP (see Figure 4.4-16 Proposed and Alternative Projects in Context of WRCMSHCP).

The southern portion of the Proposed Project is within Proposed Core 2 and connects to Proposed Constrained Linkage 15 to the north and east (Figure 4.4-16 Proposed and Alternative Projects in Context of WRCMSHCP). Biological core areas are relatively conceptual but are based on actual large, unbroken areas of primarily native habitats. Their designation is initially for planning purposes, but it is expected that they will provide the ultimate backbone of the preserve system. Such biological core areas tend to be approximately defined in the early stages of Natural Community Conservation Planning (NCCP) implementation and are, therefore, not precisely delineated.

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-16**

Southern California Edison

Proposed and Alternative Projects in Context of WRCMSHCP



Proposed Project
- Proposed 115 kV Subtransmission Line
- Common to Both

Alternative Project
- Alternative 115 kV Subtransmission Line

Potential Material Staging Yards
- Staging Yards 1-6

- Western Riverside County MSHCP Boundary
- Western Riverside County MSHCP Area Plan Subunits
- Stevens Kangaroo Rat HCP Boundary

Riverside County Integrated Plan - Area Plan Boundary
- Harvest Valley / Winchester
- Mead Valley
- Southwest Area
- Sun City / Menifee Valley

Sources: Riverside County, 2014; SCE, 2014; TRC, 2013; Aerial Image: Google Earth, 2014

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Since the southern section of the Proposed Project traverses mostly rural and suburban residential and commercial development, it will probably not be part of the ultimate preserve, although parts of it cross natural drainages that are expected to be part of the final core-linkage system.

Constrained putative wildlife linkages are identified to the east and west in the WRCMSHCP, but the general rural development with patches of native vegetation, including drainages, to the north may also support animal movement. Biological connectivity to the east, albeit fragmented in places, leads to extensive wildlands in the foothills and mountains of the San Jacinto Range. The primary orientation of the Proposed Project is north/south or perpendicular to recognized or proposed landscape linkages. Potential impacts to wildlife movement from construction and operation of the Proposed Project are discussed in Section 4.4.4.

4.4.2 Regulatory Setting

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

4.4.2.1 Federal

Federal Endangered Species Act (16 U.S.C. 1531–1543)

USFWS and the National Oceanic and Atmospheric Administration (NOAA) Fisheries oversee the FESA. USFWS has jurisdiction over plants, wildlife, and resident fish; NOAA Fisheries has jurisdiction over anadromous fish, marine fish, and marine mammals. Sections 9 and 4(d) of the FESA prohibit the "take" of any fish or wildlife species listed as endangered or threatened, including the destruction of habitat that could hinder species recovery. The FESA defines take as "to harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect listed animal species, or attempt to engage in such conduct." Section 9 take prohibition of the FESA applies to wildlife and fish species. Section 9 also prohibits the removal, possession, damage, or destruction of any endangered plant from federal lands. Section 9 further prohibits acts to remove, cut, dig up, damage, or destroy an endangered plant species in nonfederal areas in knowing violation of any state law or in the course of criminal trespass.

Section 7 of the FESA mandates that all federal agencies consult with USFWS and/or NOAA Fisheries to ensure that federal agency actions do not jeopardize the continued existence of a listed species or adversely modify Critical Habitat for listed species. If direct impacts, indirect impacts, or alterations to Critical Habitat that appreciably diminish the value of that habitat for both the survival and recovery of a species, the adverse modification would require a formal consultation with USFWS or NOAA. Section 10(a)(1)(B) of the FESA governs "incidental take" of listed species. "Incidental take" is defined by the FESA as take that is incidental to, and not for the purpose of, carrying out an otherwise lawful activity. To obtain a take permit, an applicant must submit a Habitat Conservation Plan (HCP) outlining what will be done to minimize and mitigate the impact of the permitted take on the listed species. The underlying principle of Section 10 exemption from the FESA is that some individuals of a species or

portions of their habitat may be expendable over the short term, as long as enough protection is provided to ensure the long-term recovery of the species.

A federally endangered species is a species of invertebrate, plant, or wildlife formally listed under the FESA as facing extinction throughout all or a significant portion of its geographic range. A federally threatened species is one formally listed by USFWS as likely to become endangered within the foreseeable future throughout all or a significant portion of its range. A proposed threatened or endangered species is one officially proposed by USFWS for addition to the federal threatened or endangered species list.

Candidate species and species that are proposed for listing receive no protection under the FESA. Through implementation of FESA, vegetation communities that are occupied by special status plant and animal species are also protected (e.g., designation of vegetation communities with species-specific primary constituent elements designated for specific geographic Critical Habitat areas).

USFWS considers coastal sage scrub habitat the most endangered vegetation community in the U.S. Losses of up to 85 percent have been estimated for coastal sage scrub in southern California, largely attributable to residential development and agricultural activities. USFWS has designated more than 500,000 acres of coastal sage scrub in southern California as Critical Habitat for coastal California gnatcatcher (USFWS, 2009).

Migratory Bird Treaty Act (16 U.S.C. 703-11)

The MBTA of 1918 states that it is unlawful to pursue, hunt, take, capture, transport, import, or kill any migratory bird. A list of migratory bird species protected by the MBTA appears in 16 U.S.C. 703, 50 Code of Federal Regulations (CFR) 21, and 50 CFR 10. Strict avoidance of take is required, limiting the mortality of birds and active nests (assumed and interpreted by resource agencies as nests containing eggs or chicks). Game birds are regulated under state hunting permit programs.

Bald and Golden Eagle Protection Act

The BGEPA, amended in 1962, was originally implemented for the protection of bald eagles (*Haliaeetus leucocephalus*). In 1962, Congress amended the Eagle Act to cover golden eagles, a move that was partially an attempt to strengthen protection of bald eagles, since the latter were often killed by people mistaking them for golden eagles. The BGEPA makes it illegal to import, export, take (which includes molest or disturb), sell, purchase, or barter any bald eagle or golden eagle or part thereof.

Federal Clean Water Act (33 U.S.C. 1251–1376). The federal CWA, as amended by the Water Quality Act of 1987, regulates water quality in the U.S. The objective of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters," referred to as "waters of the U.S." The regulatory definition of waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, mudflats, sandflats, sloughs, wet meadows, and wetlands. The lateral extent of nontidal, non-wetland waters of the U.S. is determined by the OHWM (33 CFR Section 328.4[c][1]). The OHWM is defined by USACE as "that line on shore

established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[e]).

Section 404

Under CWA Section 404, the USACE and U.S. Environmental Protection Agency regulate the discharge of dredged or fill material into waters of the U.S. "Discharges of fill material" are defined as the addition of fill material into waters of the U.S. including, but not limited to, the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; or fill for intake and outfall pipes and subaqueous utility lines (33 CFR Section 328.2[f]). Projects that involve discharges in waters of the U.S. require CWA Section 404 permit authorization from USACE.

Section 401

Under CWA Section 401, applicants requiring a CWA Section 404 permit, or other federal permit or license for any activity that may result in a discharge into jurisdictional waters of the U.S. must obtain a water quality certification from the state, noting that the proposed activity would comply with the state's water quality standards. Within California, the nine RWQCBs with oversight by the SWRCB implement the Section 401 certification program. When projects span multiple RWQCB boundaries, the SWRCB may assume oversight and permitting responsibility.

Executive Order 11990, Protection of Wetlands (May 24, 1977)

Executive Order 11990 establishes a national policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. On projects with federal actions or approvals, impacts on wetlands must be identified in the environmental document. Alternatives that avoid wetlands must be considered. If wetland impacts cannot be avoided, then all practicable measures to minimize harm to those wetlands must be included and documented in the final environmental document for that project.

Executive Order 13112, Invasive Species (February 3, 1999)

Executive Order 13112 calls on Executive Branch agencies to work to prevent and control the introduction and spread of invasive species. Nonnative flora and fauna can cause substantial change to ecosystems, upset the ecological balance, and have the potential to cause economic harm. Highway and utility corridors may provide opportunities for the movement of invasive species through the landscape.

4.4.2.2 State

California Endangered Species Act (CFGC 2050 et seq.)

California implemented its own Endangered Species Act in 1984. The CESA prohibits take of state-listed endangered and threatened species; however, unlike the federal definition, habitat destruction or modification is not included in CESA's definition of take. Section 2090 of the CESA requires California agencies to comply with endangered species protection and recovery, and to promote conservation of these species. CDFW administers the CESA and authorizes take through Section 2081 agreements (except for designated "fully protected species").

California considers an endangered species to be one whose prospects of survival and reproduction are in immediate jeopardy; a threatened species is one present in such small numbers throughout its range that it is considered likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. The "rare species" designation applies only to California native plants. The CESA authorizes CDFW to issue permits authorizing incidental take of threatened and endangered species. CSSC is an informal designation used by CDFW for specific declining fish, amphibian, reptile, bird, and mammal species that are not listed as endangered, threatened, or rare under the CESA. This designation does not provide legal protection but signifies that these species are recognized as vulnerable by CDFW. Vegetation communities that provide habitat for species listed under CESA are also regulated.

CDFW published the Southern California Coastal Sage Scrub Natural Community Conservation Planning (NCCP) Conservation Guidelines in 1993, which mapped areas where this vegetation type remains in southern California (CDFG, 1993). The NCCP for coastal sage scrub is a voluntary program and collaborative effort with local government and landowners sponsored by the California Resources Agency and CDFW, with the cooperation of USFWS. The Proposed Project is within a matrix area and adjacent to satellite and subregional focus areas delineated in the NCCP. The intent of delineating these areas was to help regional planners identify areas of this sensitive habitat for consideration in decision-making processes and land use planning.

CFGC Sections 3503, 3503.5, and 3505

These sections set forth limits on take, possession, and destruction of certain avian species, their nests, and eggs. Section 3503 of the CFGC prohibits destruction of the nests or eggs of most native resident and migratory bird species. Section 3503.5 specifically prohibits the taking of raptors or destruction of their nests or eggs. CFGC Section 3511(a)(1) establishes that fully protected birds may not be taken or possessed at any time, with the exception of permits granted for scientific research.

CFGC Sections 1600–1616 Regulation of Waters

CDFW regulates activities that would interfere with the natural flow of, or substantially alter, the channel, bed, or bank of a lake, river, or stream. Section 1602 of the CFGC requires notification to CDFW for lake or stream alteration activities. If, after notification is complete, CDFW determines that the activity may substantially adversely affect an existing fish and wildlife resource, CDFW has authority to issue a Streambed Alteration Agreement under Section 1603 of the CFGC.

Sensitive vegetation communities associated with wetlands or navigable waters are regulated by the federal government under the CWA and under CFGC Section 1600 regulations.

California Porter-Cologne Water Quality Control Act

The California Porter-Cologne Water Quality Control Act (Porter-Cologne Act) designated the SWRCB as the ultimate authority over State water rights and water quality policy, and established nine RWQCBs to oversee water quality on a day-to-day basis at the local/regional level (SWRCB, 2013). The SWRCB has the responsibility of granting NPDES permits for stormwater runoff from construction sites. The RWQCB regulates the discharge of waste to any waters of the State by issuing WDRs. WDRs may be required for any discharges to non-federal waters not subject to regulation under Sections 404/401 of the CWA.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) is a California statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. CEQA applies to certain activities of state and local public agencies. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a "project." A project is an activity undertaken by a public agency or a private activity that must receive some discretionary approval (meaning that the agency has the authority to deny the requested permit or approval) from a government agency that may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment. The environmental review required imposes both procedural and substantive requirements. At a minimum, an initial review of the project and its environmental effects must be conducted. Depending on the potential effects, a further, and more substantial, review may be conducted in the form of an environmental impact report. Significant impacts to sensitive biological resources including special status species and sensitive vegetation communities are also addressed under CEQA.

4.4.2.3 Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (G.O.) 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters." Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county and cities' regulations are not applicable as the county and cities do not have jurisdiction over the Proposed Project. Accordingly, the following discussion of local regulations is provided for informational purposes only.

Western Riverside County Multiple Species Habitat Conservation Plan

The Proposed Project is in the coverage area of the WRCMSHCP, a comprehensive, multi-jurisdictional HCP pursuant to Section 10(a)(1)(B) of the FESA and pursuant to the NCCP Act of 1991, which addresses conservation of species and their associated habitats in western Riverside County. The WRCMSHCP was approved by Riverside County, local jurisdictions, and various regulatory agencies on June 17, 2003. The Western Riverside County Regional Conservation Authority (RCA) was created in 2004 to implement the WRCMSHCP. The area administered by the WRCMSHCP comprises approximately 1.26 million acres west of and including a portion of the mountains that divide the coastal slope from the desert.

The conservation objective of the WRCMSHCP is preservation of approximately 500,000 acres of natural and semi-natural vegetation and habitats. Approximately 347,000 acres (70 percent) of this preservation will be accomplished on existing public/quasi-public lands. The remaining 153,000 acres will be assembled from suitable portions of private lands throughout the plan area through zoning, conservation easements, and acquisition. Preserve assembly will observe conservation biology principles of incorporating large, core natural areas and biological landscape linkages. The collective area from which the 153,000 acres will be derived constitutes the Criteria Area, within which area-specific criteria for conservation based on careful examination of species occurrences, landscape features, and conceptual preserve design will be applied. The criteria are designed to achieve overall conservation goals at various spatial scales, from local to within and beyond the WRCMSHCP area. An unbiased system (regardless of political, property, or biological boundaries) of Criteria Cells of 0.25 of a mile square was applied to the Criteria Area to provide a reference for conservation planning based on the distribution of critical biological and landscape features. Criteria Cells are the finest level of planning unit in the conservation scheme described below.

Biological conservation within the Criteria Area of the WRCMSHCP area is identified, planned, and achieved through a hierarchical system of planning units (Dudek, 2003). The largest scale of these units consists of a set of irregular Area Plans, which correspond to Area Plan boundaries of the Riverside County General Plan and, therefore, occur regardless of biological landscape features. Within these areas, single Criteria Cells or clusters of cells are grouped into Subunits by common ecological features. Section 3.3 of the WRCMSHCP describes the Area Plans in detail, identifying target preservation acreages, core/linkage features, key habitat types, and relevant planning species for each.

Segment 1 of the Proposed Project occurs within the boundaries of four Area Plans: Mead Valley, Harvest Valley/Winchester, Sun City/Menifee Valley, and Southwest Area. The proximity of the Proposed Project to Area Plan Subunits and Criteria Cells is briefly described in this section. Figure 4.4-16 Proposed and Alternative Projects in Context of WRCMSHCP shows the location of the Proposed Project relative to Area Plans and Subunits of the WRCMSHCP and Stephens' Kangaroo Rat HCP. Figure 4.4-17 WRCMSHCP Criteria Cells, shows the Criteria Cell boundaries. Segment 2 of the Proposed Project would occur entirely within the Southwest Area Plan, specifically within Subunit 5 – French Valley/Lower Sedco Hills of the WRCMSHCP. The Proposed Project potential impacts on conservation criteria within each of the four Area Plans are addressed in detail in Section 4.4.4, Impact Analysis. The only

representation of the Proposed Project within the Mead Valley Area Plan consists of one unpaved material staging yard within Segment 1 of the Proposed Project in a developed area in southwestern Perris. This site is located approximately 0.2 of a mile northwest of several Criteria Cells occurring in farmland.

The northern approximately 75 percent of the Proposed Project, as well as several outlying material staging yards, occurs within the Harvest Valley/Winchester Area Plan or along its boundary with the Sun City/Menifee Valley Area Plan. Although this long section of the alignment passes through or is adjacent to extensive agricultural land and native vegetation, this area is beyond the Criteria Area. The section of Segment 1 of the Proposed Project south of Scott Road passes through a portion of the Criteria Area and several Criteria Cells within the Southwest Area Plan. The northern terminus of Segment 2 of the Proposed Project would be at the boundary of WRCMSHCP Criteria Cells 5569 (northern portion of Cell Group C) and 5671 (eastern portion of Cell Group A). Segment 2 of the Proposed Project follows the southern side of Criteria Cell Group Z and the north side of Criteria Cell Group B' until turning south on the eastern side of Criteria Cell Group B then turning to the east (following the northern boundary of Criteria Cell 5778). Segment 2 of the Proposed Project is then outside of WRCMSHCP Criteria Cells and is just to the east of Criteria Cell 5778. Segment 2 of the Proposed Project then enters the Criteria Area again on the eastern side of Criteria Cell 5879 and follows the eastern edge of Criteria Cell Groups V and W, with a slight turn into the east side of Criteria Cell Group W and through the eastern portion of Independent Criteria Cell 6180. After exiting the southern portion of Criteria Cell 6180, Segment 2 of the Proposed Project is outside of the WRCMSHCP Criteria Area (within the City of Temecula).

The WRCMSHCP recognizes "coverage" of species under the planning process as equivalent to adequate, long-term conservation of those species anticipated under full implementation of the WRCMSHCP, which is also designed to account for integrated human development on the landscape. The WRCMSHCP covers 146 species, including many special status species. Among these, 106 are adequately conserved with no additional surveys or conservation required. The remaining 40 species, including six riparian/riverine species, 14 NEPS, 13 CAPS, three amphibians, burrowing owl, and three mammals, are covered with conditional survey requirements. NEPS are highly restricted by their habitat affinities, edaphic requirements, or other ecological factors and specific conservation measures have been identified. Federal, state, and local regulations converge in the conservation of several vegetation communities, some of which are geographically widespread, under the NCCP process through the implementation of the WRCMSHCP. These vegetation communities may or may not contain special status species or their habitat.

Maps of the aforementioned designated survey areas for these species are provided in Section 6.0 of the WRCMSHCP. Species-specific surveys are required for projects occurring within a WRCMSHCP-designated survey area and if species-specific habitat conditions are present within the project area. If any of the species are present within their respective Criteria Areas, avoidance of 90 percent of those portions of the property that provide for long-term conservation value for the species is required until the WRCMSHCP has met its conservation objectives for those species (WRCMSHCP, Table 9-2). If 90 percent avoidance cannot be achieved, a Determination of Biological Equivalent or Superior Preservation (DBESP) analysis is required.

Despite the take authorization afforded through the NCCP process, the WRCMSHCP strives for avoidance and minimization of adverse effects of development actions to special status species and habitats through survey, assessment, and planning.

Stephens' Kangaroo Rat Habitat Conservation Plan

The Riverside County Habitat Conservation Agency adopted a separate HCP for Stephens' kangaroo rat in 1996 (Riverside County 1996), prior to the approval of the WRCMSHCP. This plan remains in effect and must be complied with independently from the WRCMSHCP. Stephens' kangaroo rat is federally listed as endangered and state-listed as threatened. Participants in the HCP can incorporate projects into the incidental "take" permit for Stephens' kangaroo rat if the project complies with the requirements of the HCP.

Payment of the mitigation fees and compliance with the HCP provide full mitigation under CEQA, the National Environmental Protection Act (NEPA), the CESA, and the FESA for impacts to Stephens' kangaroo rat. Figure 4.4-16 Proposed and Alternative Projects in Context of WRCMSHCP shows that the entire Proposed Project is located within the HCP fee area, which is defined as areas within the greater HCP area, but beyond designated preserve areas.

Riverside County General Plan

Riverside County established Oak Tree Management Guidelines in 1993 (revised in 1999) that have been incorporated into the WRCMSHCP. These guidelines are intended to minimize losses to native oaks by development siting and mitigation. They do not apply to other tree species. Riverside County also passed Ordinance 559.7, Regulating the Removal of Trees (1997, as amended from original approval in 1976), which applies only to native tree species occurring above 5,000 feet in elevation. The entire Proposed Project occurs below 5,000 feet.

City of Menifee General Plan

The City of Menifee General Plan was adopted on December 20, 2013 (City of Menifee, 2013). Relevant goals and policies listed in the City of Menifee General Plan Open Space and Conservation Element are below.

OSC-8: Protected biological resources, especially sensitive and special status wildlife species and their natural habitats

- OSC-8.1 Work to implement the Western Riverside County Multiple Species Habitat Conservation Plan in coordination with the Regional Conservation Authority
- OSC-8.5 Recognize the impacts new development will have on the City's natural resources and identify ways to reduce these impacts
- OSC-8.8 Implement and follow WRCMSHCP goals and policies when making discretionary actions pursuant to Section 13 of the Implementing Agreement

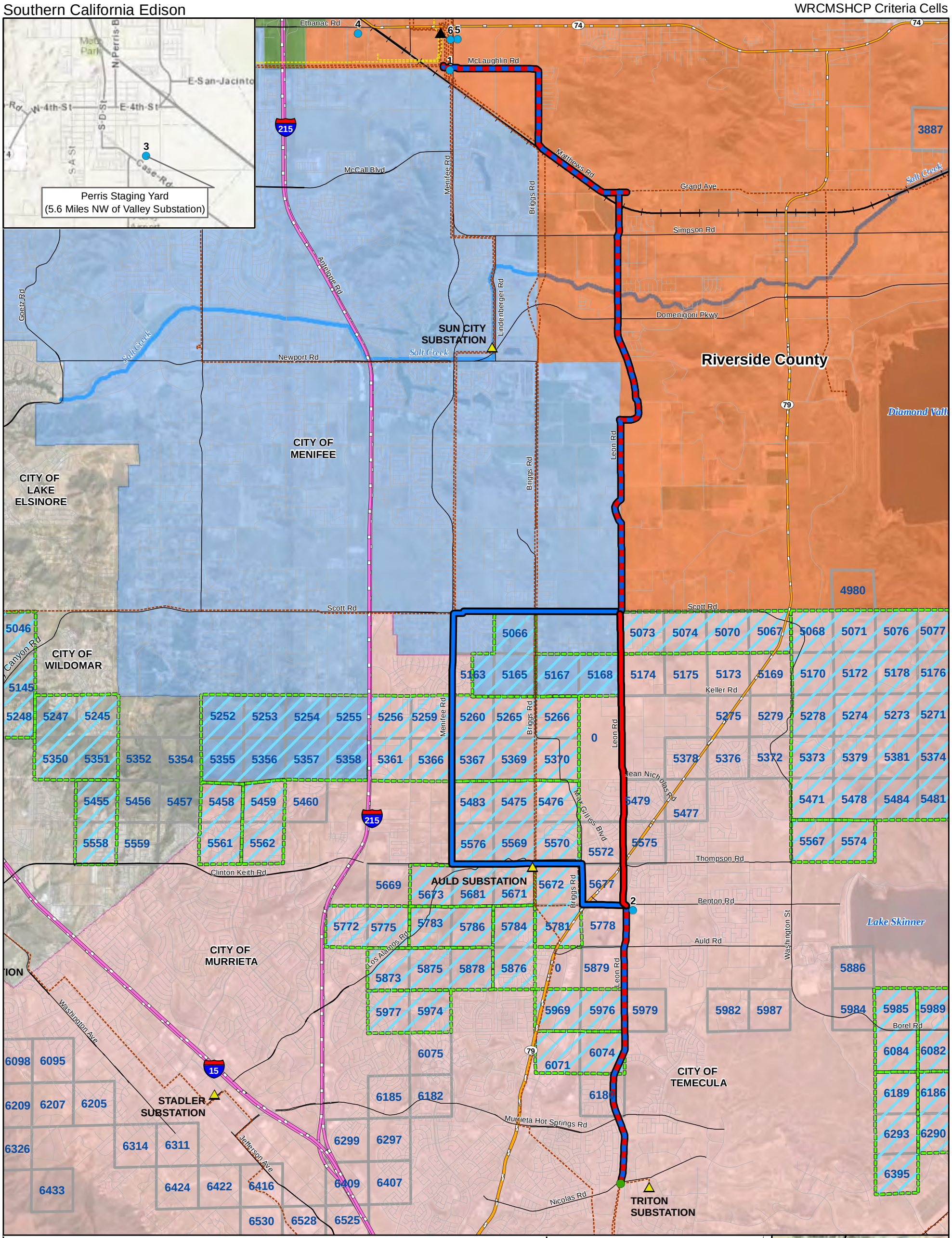
City of Murrieta General Plan

Relevant policies under the Murrieta General Plan include the following:

- LU-22.3 Encourage development that minimizes impacts to existing water courses, mature trees, and natural features as much as possible. In those cases that these areas/features are impacted, the final design should provide adequate mitigation on-site and/or in nearby areas
- LU-22.4 Encourage healthy and structurally sound, existing groves of eucalyptus and other mature nonnative trees located west of Warm Springs Creek to be considered a visual asset to the area, and should be conserved and maintained to the maximum degree practicable

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-17**

Southern California Edison WRCMSHCP Criteria Cells



Proposed Project
- Proposed 115 kV Subtransmission Line
- Common to Both

Alternative Project
- Alternative 115 kV Subtransmission Line

Potential Material Staging Yards
- Staging Yards 1-6

Existing Facilities
- 115 kV Substation
- 500 kV Substation
- Terminal TSP
- Transmission Line
- Subtransmission Line

MSHCP Plan Boundary
- Harvest Valley / Winchester
- Mead Valley
- Southwest Area
- Sun City / Menifee Valley
- Western Riverside Co. MSHCP Area Plan Subunits
- Western Riverside Co. MSHCP Criteria Cells

Sources:
Riverside County, 2014;
SCE, 2008, 2014;
TRC 2013
Aerial Image:
Google Earth, 2014

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City of Murrieta Development Code

The Murrieta Development Code Chapter 16.42, Tree Preservation, provides regulations for the protection, preservation, and maintenance of native oak, sycamore, and cottonwood trees; trees of historic or cultural significance; groves and stands of mature trees; and mature trees in general that are associated with proposals for development. These provisions are also intended to perpetuate these trees through the replacement of trees removed as a result of a new development. Pursuant to Murrieta Development Code Chapter 16.42, protected trees include any of the following:

- Native oaks with diameters at breast height of 4 inches or greater; smaller trees may also be protected under special circumstances as determined by the Director
- Trees of historical or cultural significance as identified by Council resolution
- Significant groves or stands of trees
- Mature trees located on a parcel of 1 acre or more; smaller trees may also be protected under special circumstances as determined by the Director
- Any tree required to be planted or preserved as environmental mitigation for a discretionary permit

No person is allowed to remove, cut down, or otherwise destroy a protected tree unless a Tree Removal Permit has been approved by the Director of the Department of Planning. All development projects within Murrieta are required to recognize through project design the desirability of preserving protected trees to the greatest extent feasible. The design of proposed grading and other improvements must also reflect certain measures such as providing sufficient growing areas; minimizing disruption or removal of root zones; fencing of trees at or beyond the drip line during grading and construction; and minimizing all cutting, filling, or compaction of soils within the drip line, among other measures.

City of Perris General Plan

The City of Perris has adopted the WRCMSHCP and has no other ordinances or other regulations related to conservation of biological resources.

City of Temecula General Plan

The City of Temecula General Plan was updated in 2005 (adopted in 1993) (City of Temecula, 2005). Relevant goals and policies listed in the City of Temecula General Plan Land Use Element include the following:

- Policy 6.3 Conserve the natural resources of area watercourses, including Santa Gertrudis, Temecula and Murrieta Creeks, through appropriate development densities, managing stormwater runoff, and conservation site planning
- Policy 6.4 Protect and enhance significant ecological and biological resources within and surrounding Temecula

4.4.3 Significance Criteria

The significance criteria for assessing the impacts to biological resources are determined from the CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS
- Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (CWA) (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridor, or impede the use of native wildlife nursery sites
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted HCP, Natural Community Conservation Planning (NCCP), or other approved local, regional, or State Habitat Conservation Plan

To evaluate whether an impact to biological resources would result in a "substantial adverse effect," both the resource itself and how that resource fits into a regional context must be considered. For impact analysis purposes, a "substantial adverse effect" is defined as the loss or harm of a magnitude that, based on current scientific data and knowledge, would (1) substantially diminish population numbers of a species or distribution of a habitat type within the region or (2) eliminate the functions and values of a biological resource in the region (CEQA Guidelines).

4.4.4 Impact Analysis

Potential project related impacts to vegetation, habitats, other land cover types, and species were identified. Any alteration, disturbance, or destruction of biological resources that would result from project related activities is considered a direct impact. Direct impacts would include direct losses of habitat, potential jurisdictional waters, wetlands, and special-status species, and diverting natural surface water flows. Direct impacts are those that involve ground disturbance and loss of the original ground cover due to grading, construction, and maneuvering or staging. Direct impacts for the Proposed Project are discussed quantitatively, as preliminary acreage estimates of ground disturbance have been provided by engineering. Permanent impacts cause irreplaceable loss of previous ground cover types, whereas temporary impacts cause short-term damage to cover types that may or may not recover naturally.

Indirect impacts are those that do not cause ground disturbance but are related to secondary effects, such as dust, noise, ground vibration, and visual disturbance. Indirect impacts for the Proposed Project are discussed qualitatively, as acreage estimates are not applicable.

The Project Description as discussed in Chapter 3, is based on planning level assumptions. Exact details related to construction locations and associated impacts would be determined following completion of final engineering, identification of field conditions, availability of labor, material, and equipment, and compliance with applicable environmental and permitting requirements. Final engineering designs are not available, however, the Project Description utilizes conservative ground disturbance assumptions based on preliminary engineering to estimate surface area disturbance to determine estimates of maximum acreages of temporary and permanent impacts for the Proposed Project. Without precise final siting of construction features, temporary and permanent impacts by vegetation type or to specific biological resources can only be estimated. Therefore, in lieu of a final design, potential work areas were created by mapping a buffer around structures in GIS throughout the Proposed Project Study Area to generate a potential "Impact Corridor." The potential "Impact Corridor" was then reduced to avoid impacts to all jurisdictional waters and riparian habitats, and, to the extent feasible, were minimized in areas of critical habitat and/or special status plant species occurrences. This resulted in approximately 509 acres identified within the Proposed Project Study Area where construction impacts could occur (see Figure 4.4-18 Potential Impact Corridor and Table 4.4-8 Potential Impact Acreages Within the Proposed Project Potential Impact Corridor). Standard work areas limits defined by construction type in Table 3.3 Approximate Laydown/Work Area Dimensions, would be approximately 179.3 acres of temporary, and 14.2 acres permanent impacts within the 509 acre potential "Impact Corridor."

The potential "Impact Corridor" was generated to aid the analysis of potential significant impacts only, and should not be interpreted as final construction work area limits. The location of some construction work areas may change prior to construction. As it relates to each of the Proposed Project components, this expanded surface area disturbance shown in Table 4.4-8 Potential Impact Acreages Within the Proposed Project Potential Impact Corridor, is provided for the purpose of ensuring the biological resource analysis included in Section 4.4 and Chapter 6.0 sufficiently analyzes the potential biological resources that could be significantly impacted by the Proposed Project. For the purposes of this analysis, it is assumed that temporary and permanent impact calculations presented in Table 3.4 Access Road Land Disturbance, and Table 3.5 Subtransmission Approximate Land Disturbance could occur anywhere within the 509 acre Proposed Project potential "Impact Corridor."

Table 4.4-8 Potential Impact Acreages Within the Proposed Project Potential Impact Corridor

Project Feature	Construction Work Area Segment 1 (Acres)	Construction Work Area Segment 2 (Acres)	Estimated Construction Work Area Segment 1 and 2 (Acres)	Estimated Construction Impacts Segment 1 and 2 (Acres)[1]	Estimated Construction Impacts Segment 1 and 2 (Acres)[2]
				Temporary	Permanent
Access Road (400' x 18')	NA	NA	NA	0	0.2
Subtransmission/ Distribution Relocation	453.5	55.5	509	179.3	14.0[3]
			Total	**179.3**	**14.2**

Notes:

[1, 2] Numbers adapted from Table 3.5 Subtransmission Approximate Land Disturbance

[3] Approximately 0.0015 acres of permanent impacts are expected to occur within Segment 2 of the Proposed Project

Potential impacts to biological resources resulting from construction of the Proposed Project include impacts to native and nonnative vegetation communities and populations of special status species. Impacts would be associated with construction activities. Impacts could occur related to the following activities:

- Road grading and construction
- Pole site preparation and wire stringing activities
- Vegetation removal to facilitate line/pole placement
- Movement of equipment and project materials

The Applicant Proposed Measures (APMs) described below, would limit impacts to less than significant levels. All expected direct permanent and temporary construction activities, including structure installation/removal sites, stringing and pull sites, staging and stockpile areas, haul roads, and equipment work areas, are expected to be within the limits of the potential "Impact Corridor," as is depicted in Figure 4.4-18 Potential Impact Corridor. Corresponding potential impacts acreages by vegetation type are given in Table 4.4-9 Vegetation and Land Cover Types within the Proposed Project Potential Impact Corridor.

To avoid possible confusion from overlapping acreages, the potential material staging yards overlapping the potential "Impact Corridor" are included as part of the potential "Impact Corridor." Acreages for staging yards are included in the estimated impact acres in Segment 1 of the Proposed Project. Two material staging yards overlap with the Proposed Project's potential "Impact Corridor," protruding from the corridor, as do certain structures such as stub poles (Figure 4.4-18 Potential Impact Corridor). Construction work areas limits presented in this impact analysis were developed after 2014 biological resource surveys had concluded. In two areas, the Proposed Project work area limits are outside of the Proposed Project Study Area (Figure 4.4-18 Potential Impact Corridor). One area is adjacent to the southerly fence line at Valley substation, and one location extends east of pole #1976119E along Grand Ave. In both areas, the adjacent mapped vegetation is either Ruderal/Disturbed, Developed/Disturbed or Agricultural and from an analysis of aerial photographs, these areas would be classified the same. Though not within the Proposed Project Study Area, these areas are not expected to contain any sensitive biological resources outside those analyzed within the Proposed Project Study Area, and therefore are assumed to be included in the impact assumptions provided below. Biological resource avoidance and minimization measures would be implemented for these two locations as outlined in Section 4.4.4.6 Applicant Proposed Measures.

This analysis is generic, identifying maximum potential impacts, however, final Proposed Project siting will avoid sensitive natural features where feasible and it may be assumed that actual, final impacts will result in the minimal loss of sensitive features.

Any developed areas or existing roads as mapped in Figure 4.4-4 Vegetation and Other Land Cover Types, were subtracted from the total potential "Impact Corridor" habitat acreage as activities within developed areas would not be considered a new impact. Based on the results of this exercise, approximately 339.5 acres of habitat occur within Segment 1 of the Proposed Project potential "Impact Corridor," and 40 acres of habitat occur within Segment 2 of the

Proposed Project Corridor, as shown in Figure 4.4-18 Potential Impact Corridor. Permanent land disturbance for Segment 1 and 2 of the Proposed Project would be approximately 14.2 acres and 0.0015 of an acre, respectively, and are expected to occur at or adjacent to structures. Since most structures are placed in previously disturbed or developed areas, new permanent impacts to the habitats show in Table 4.4-9 Vegetation and Land Cover Types within the Proposed Project Potential Impact Corridor, would be less than 14.2 acres.

The analysis of the portions of the Alternative Project that are distinct from the Proposed Project, where they do not overlap, is discussed in Section 4.4.6, Impact Analysis, of the Alternative Project.

VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Sheet (1 of 22)

Sources:
SCE, 2014;
TRC 2013;
Aerial Image:
Esri, 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
Agriculture
Disturbed / Ruderal

Sheet (3 of 22)

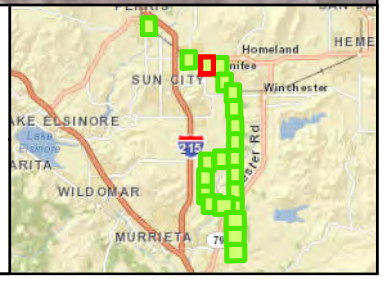
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
Agriculture
Diegan Coastal Sage Scrub
Disturbed / Ruderal
Nonnative Woodland / Ornamental

Sheet (4 of 22)

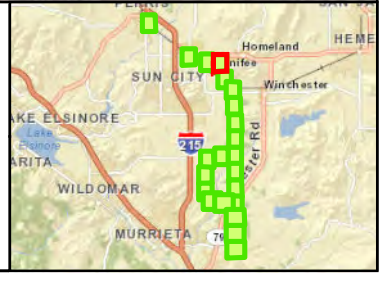
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-18

Southern California Edison

Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area

Agriculture
Diegan Coastal Sage Scrub
Disturbed / Ruderal
Eucalyptus
Mulefat Scrub
Nonnative Woodland / Ornamental

Sheet (5 of 22)

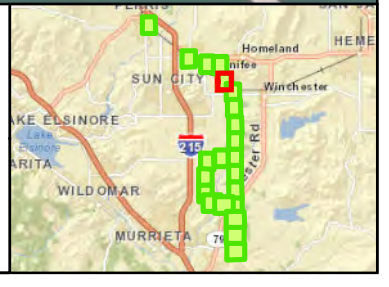
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-18

Southern California Edison

Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
Agriculture
Disturbed / Ruderal
Eucalyptus
Mulefat Scrub
Nonnative Grassland
Nonnative Woodland / Ornamental

Sheet (6 of 22)

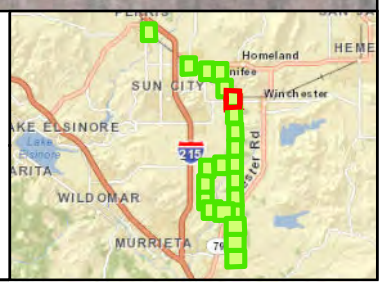
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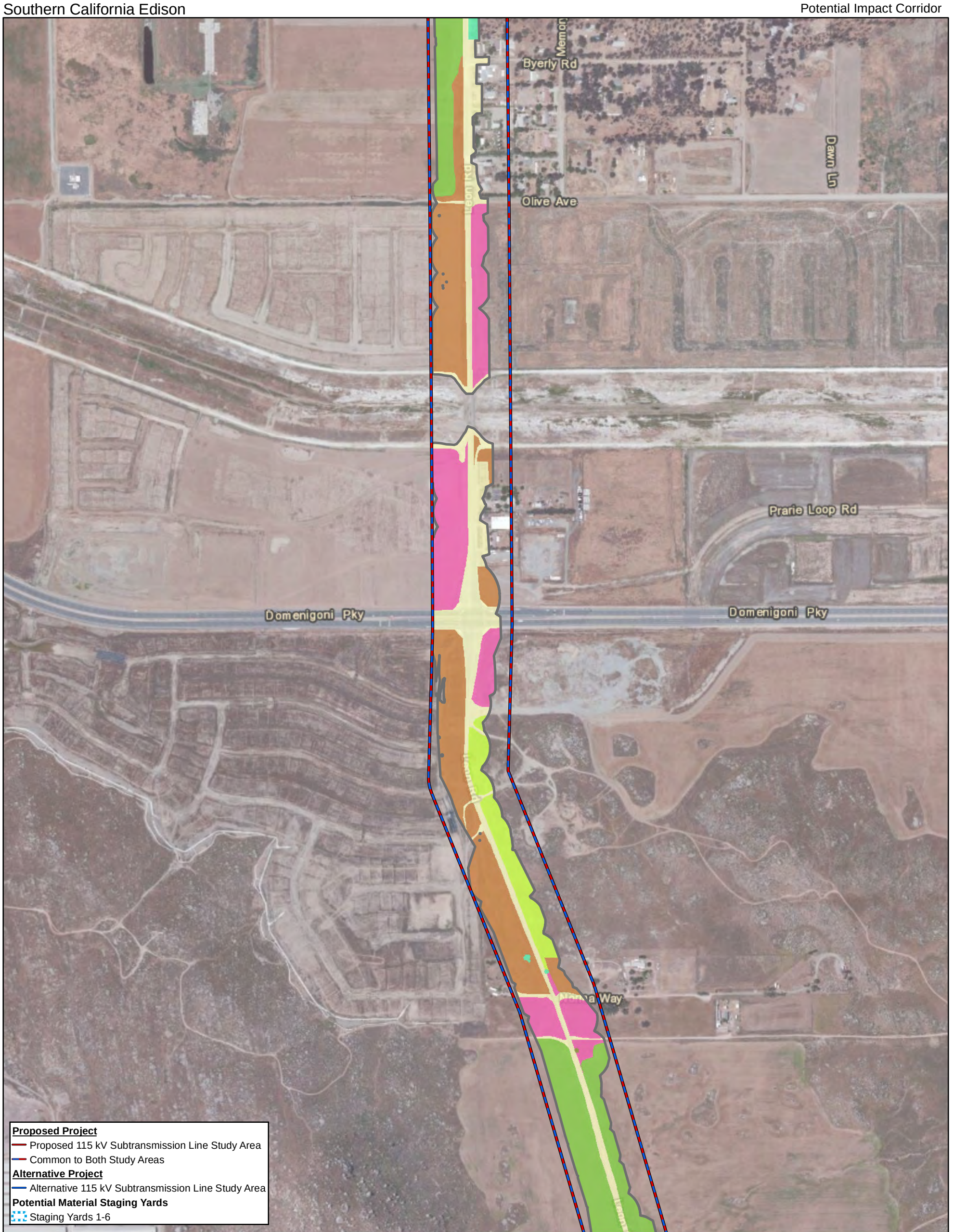
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
- Agriculture
- Diegan Coastal Sage Scrub
- Disturbed / Ruderal
- Eucalyptus
- Nonnative Grassland
- S. Cottonwood - Willow Riparian Forest
- Southern Willow Scrub

Sheet (8 of 22)

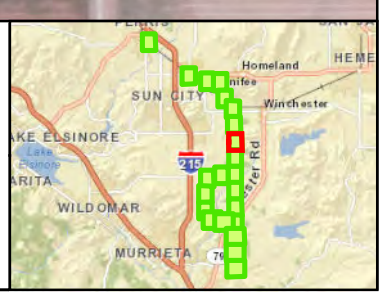
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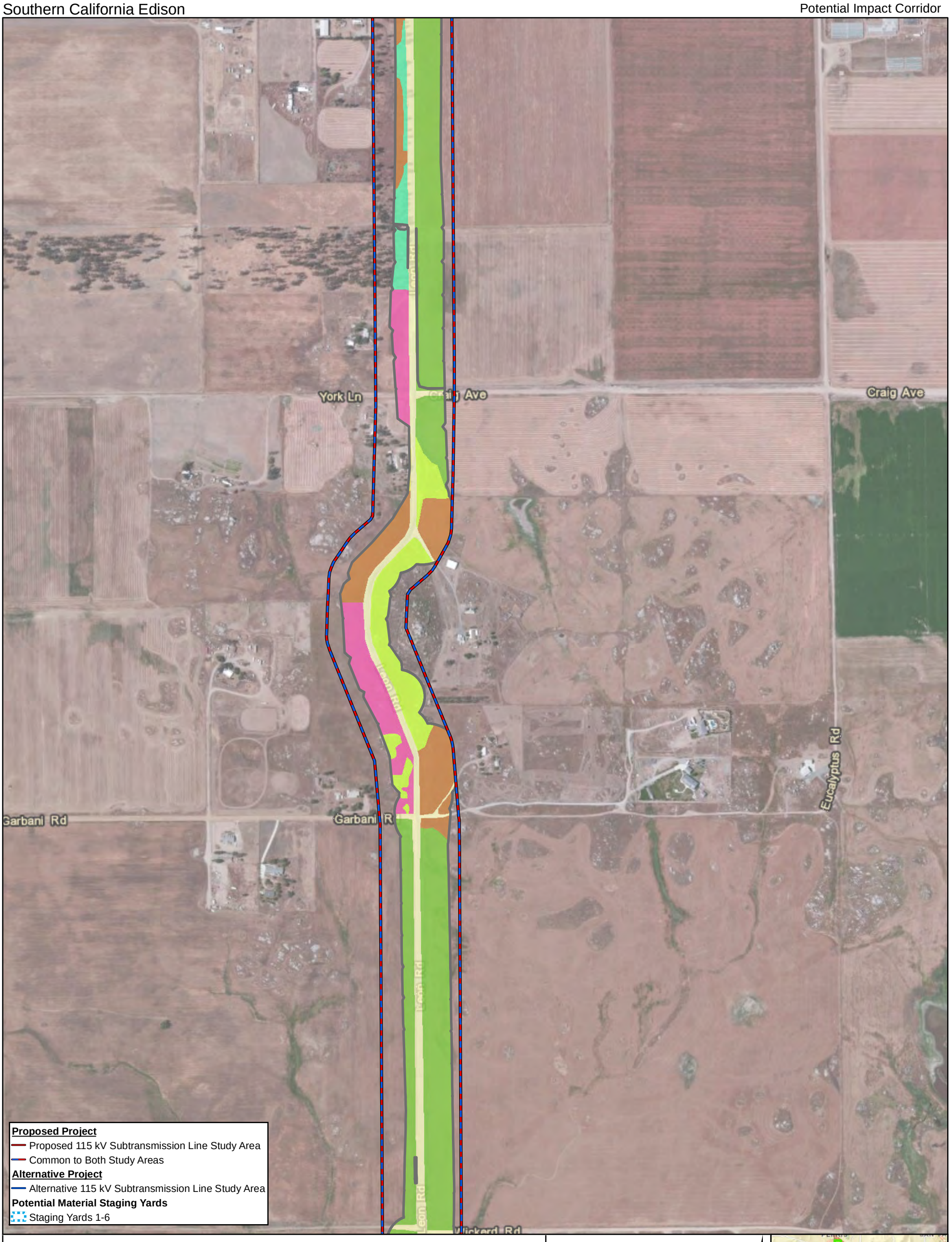
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor

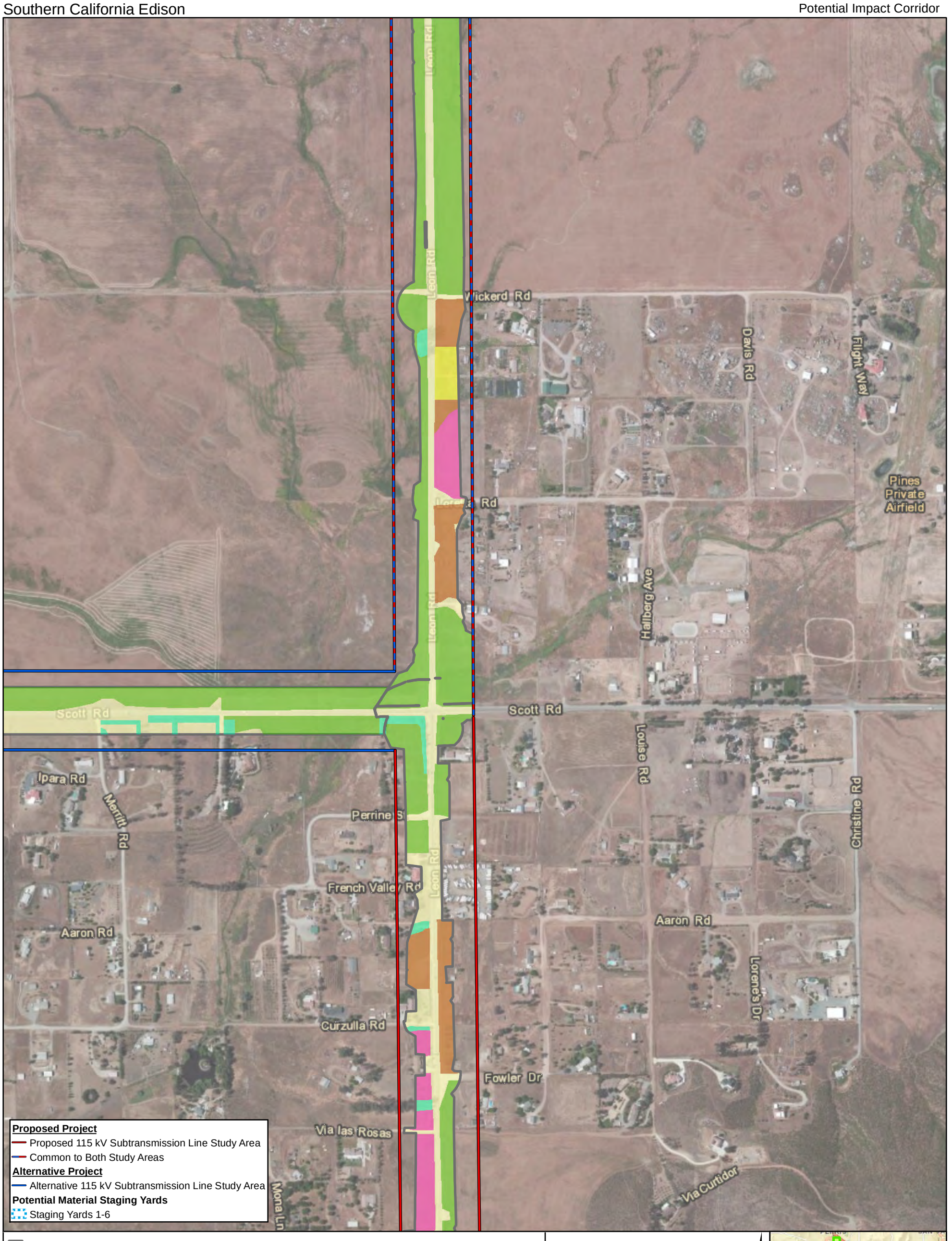


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-18

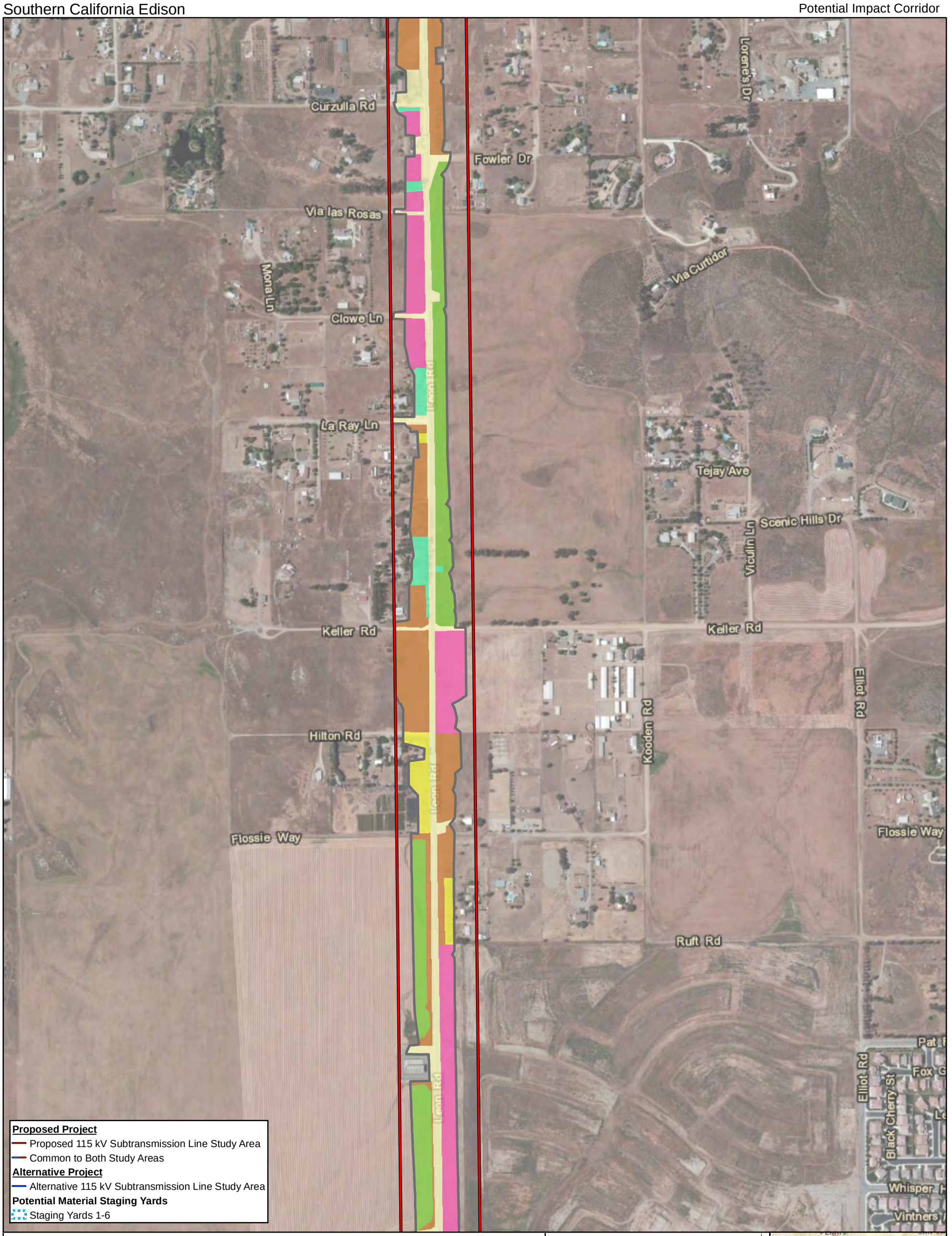
Southern California Edison

Potential Impact Corridor



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
Agriculture
Disturbed / Ruderal
Eucalyptus
Nonnative Grassland
Nonnative Woodland / Ornamental

Sheet (11 of 22)

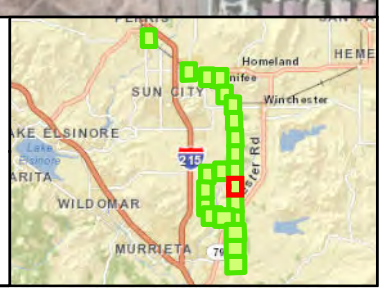
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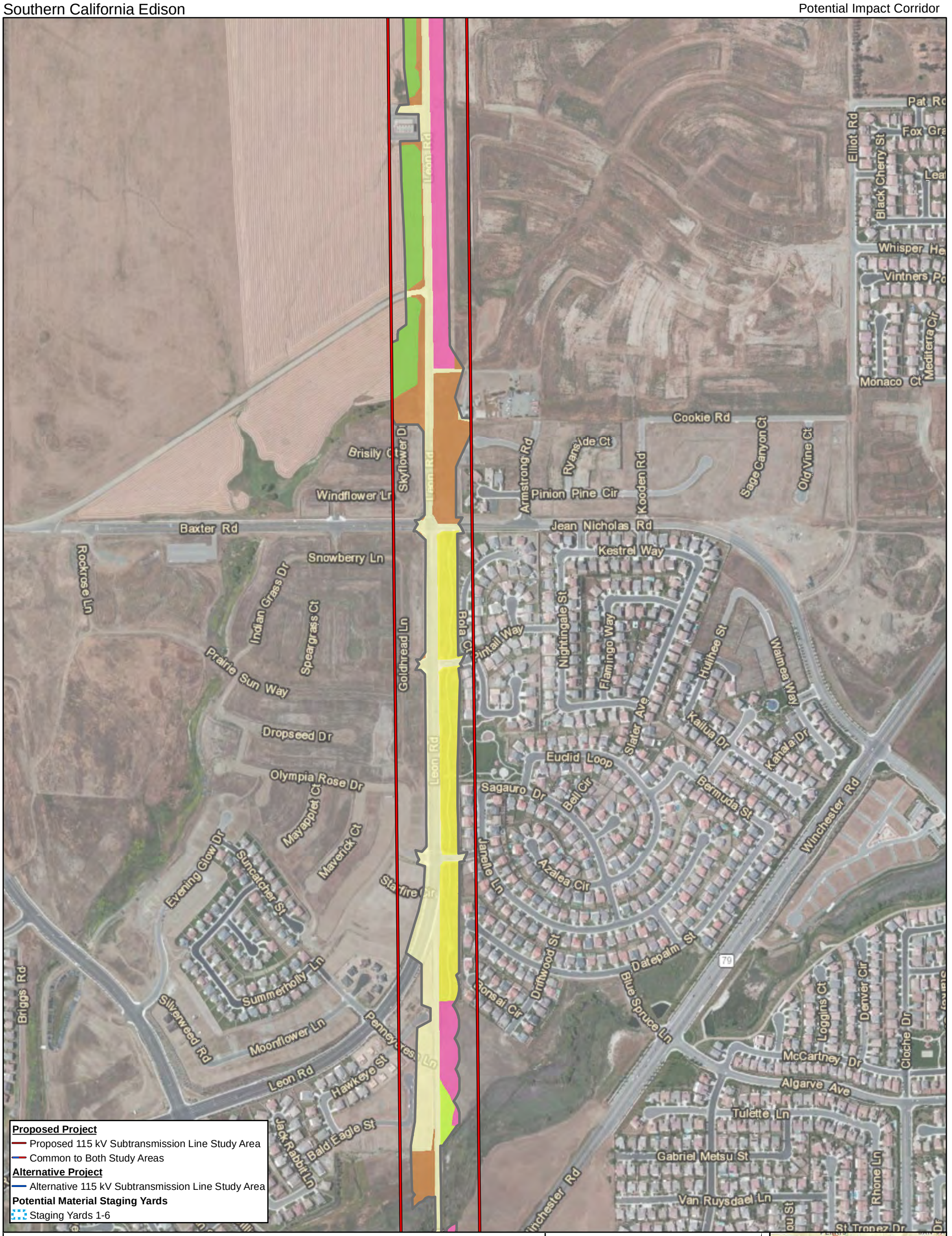


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-18

Southern California Edison

Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
Agriculture
Diegan Coastal Sage Scrub
Disturbed / Ruderal
Nonnative Grassland
Nonnative Woodland / Ornamental

Sheet (12 of 22)

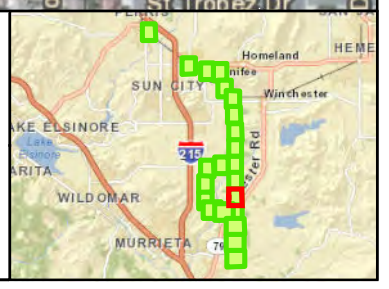
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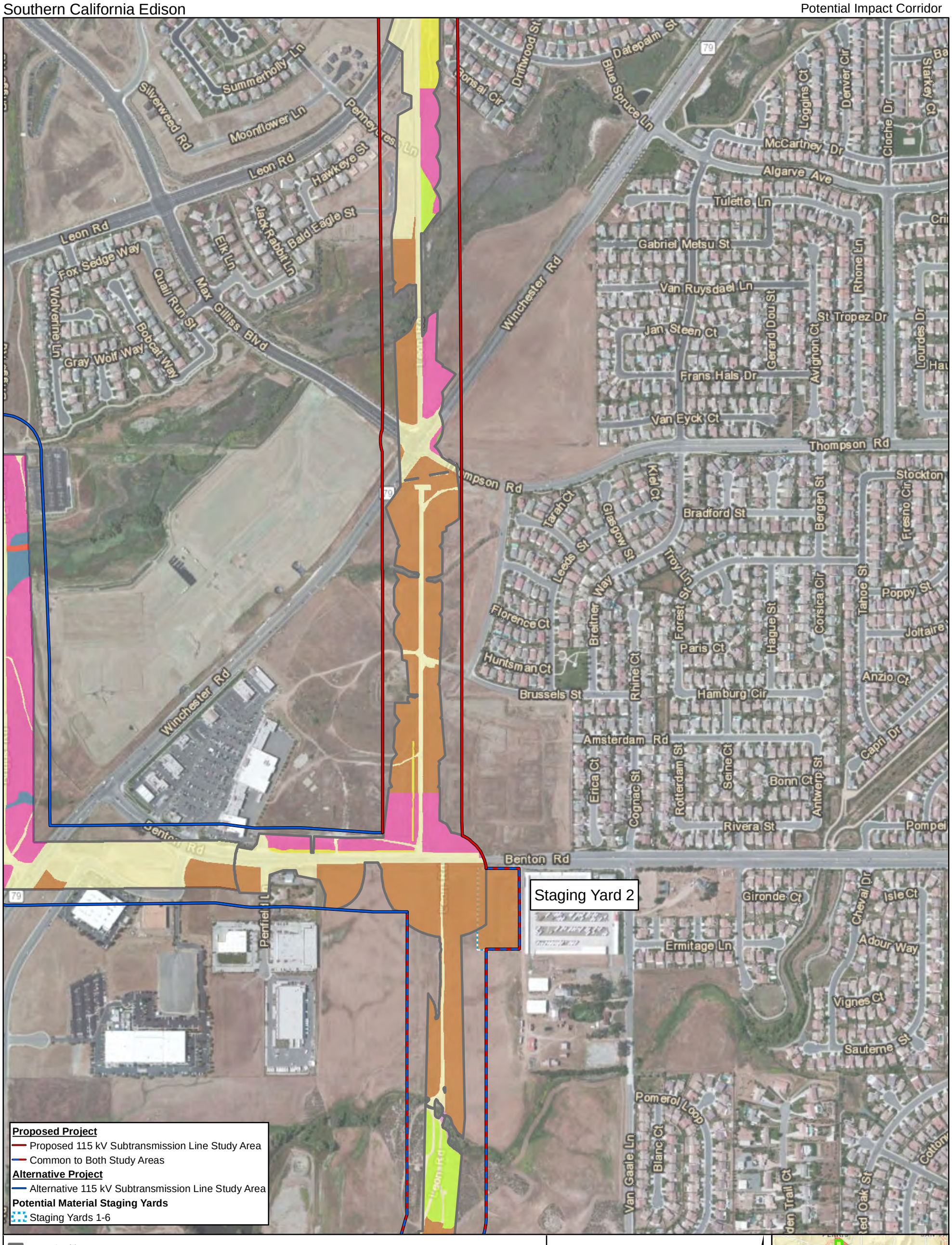
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
- Agriculture
- Diegan Coastal Sage Scrub
- Disturbed / Ruderal
- Emergent Wetland
- Freshwater Marsh
- Mulefat Scrub
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- Southern Willow Scrub

Sheet (13 of 22)

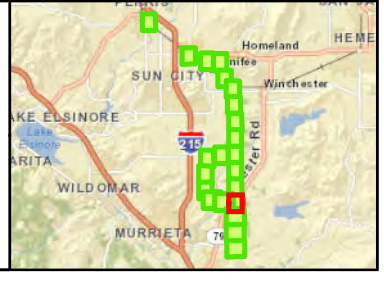
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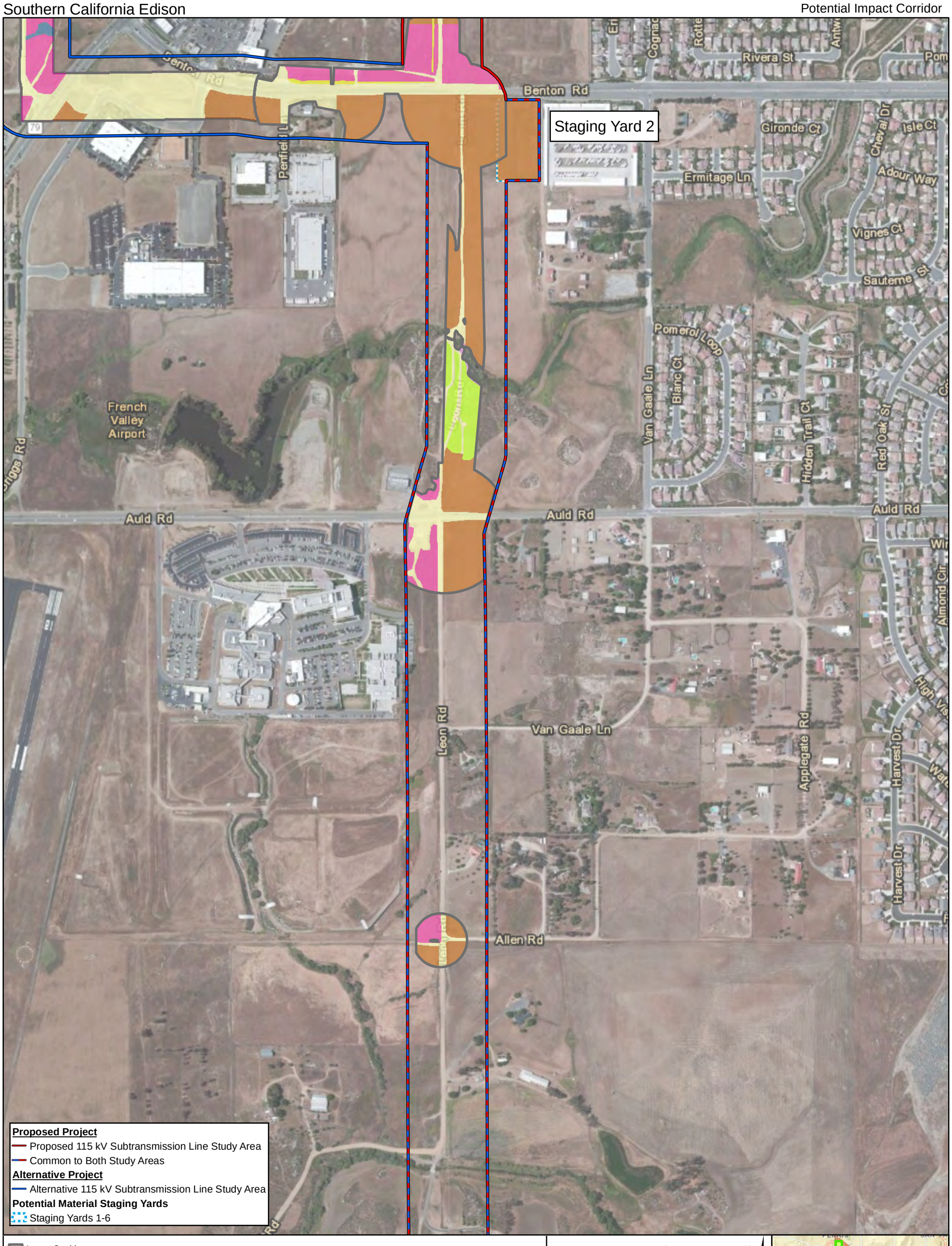
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Sheet (14 of 22)

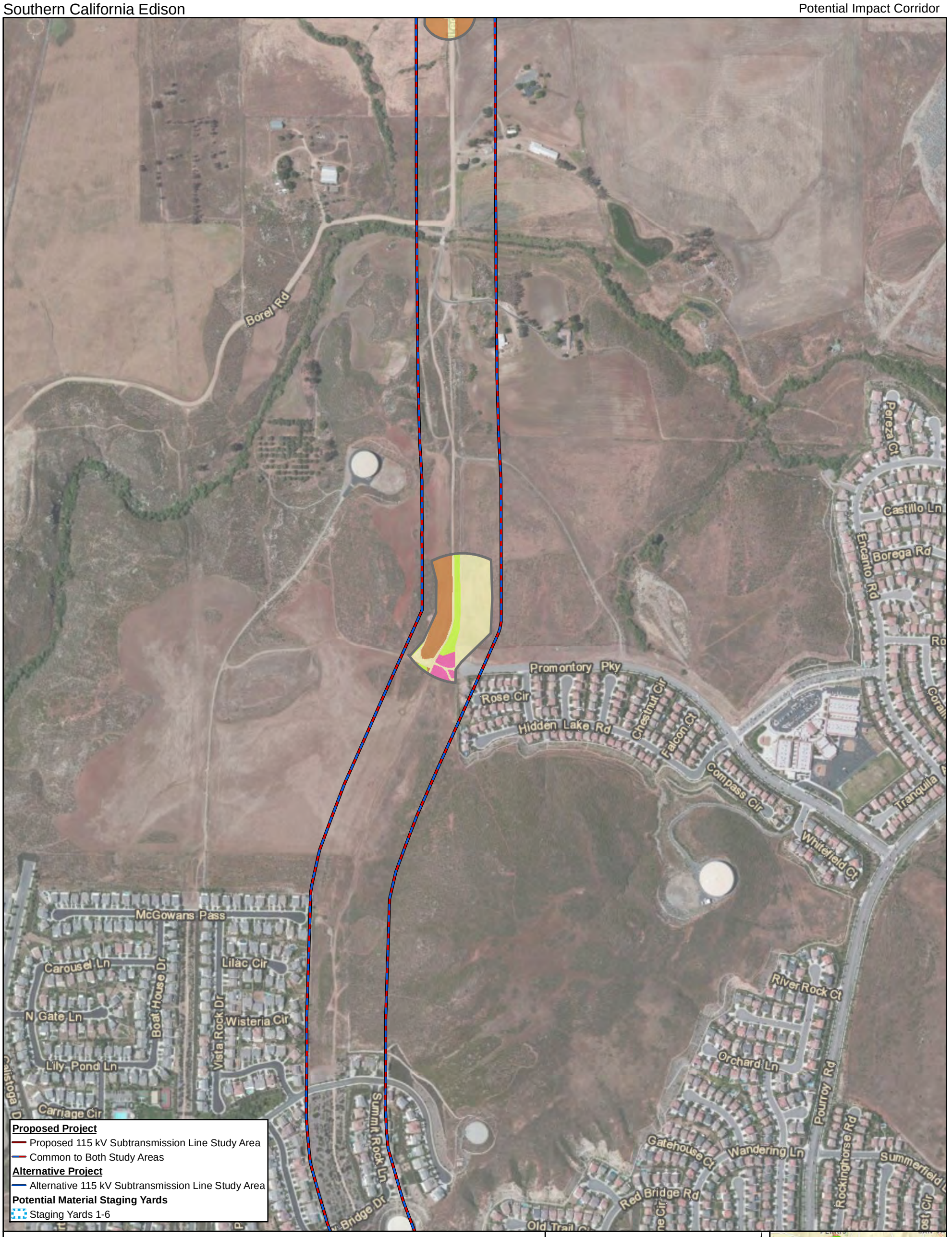
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-18

Southern California Edison

Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
Diegan Coastal Sage Scrub
Disturbed / Ruderal
Nonnative Grassland

Sheet (15 of 22)

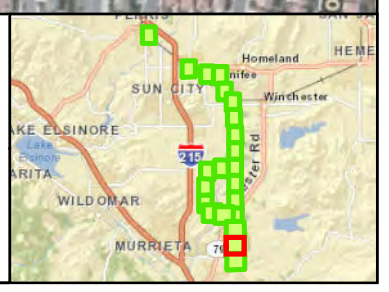
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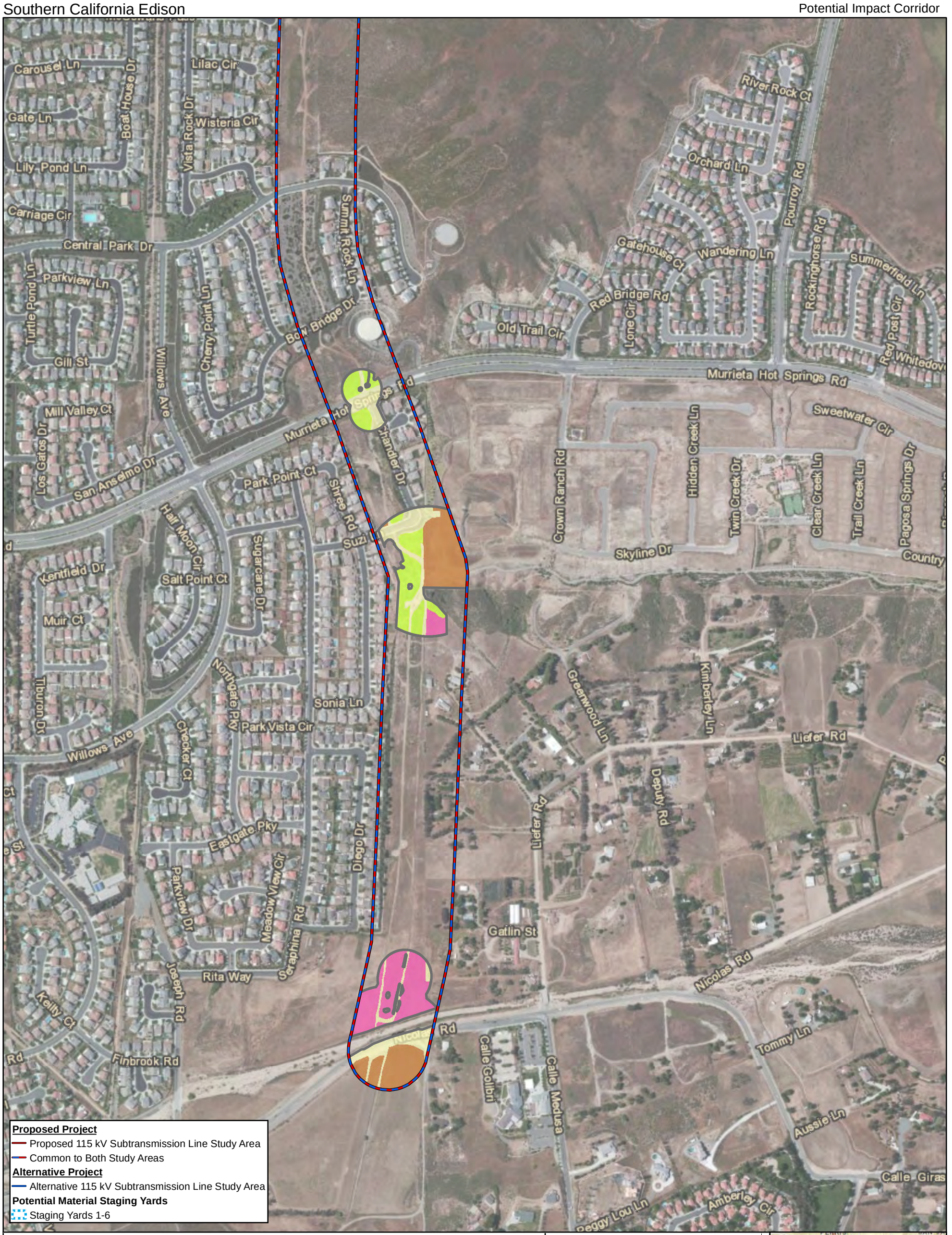
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
Diegan Coastal Sage Scrub
Disturbed / Ruderal
Nonnative Grassland

Sheet (16 of 22)

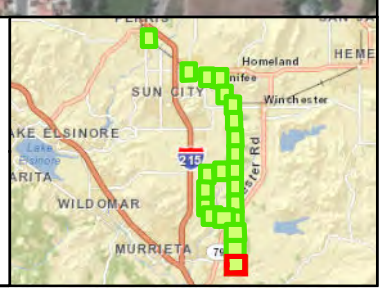
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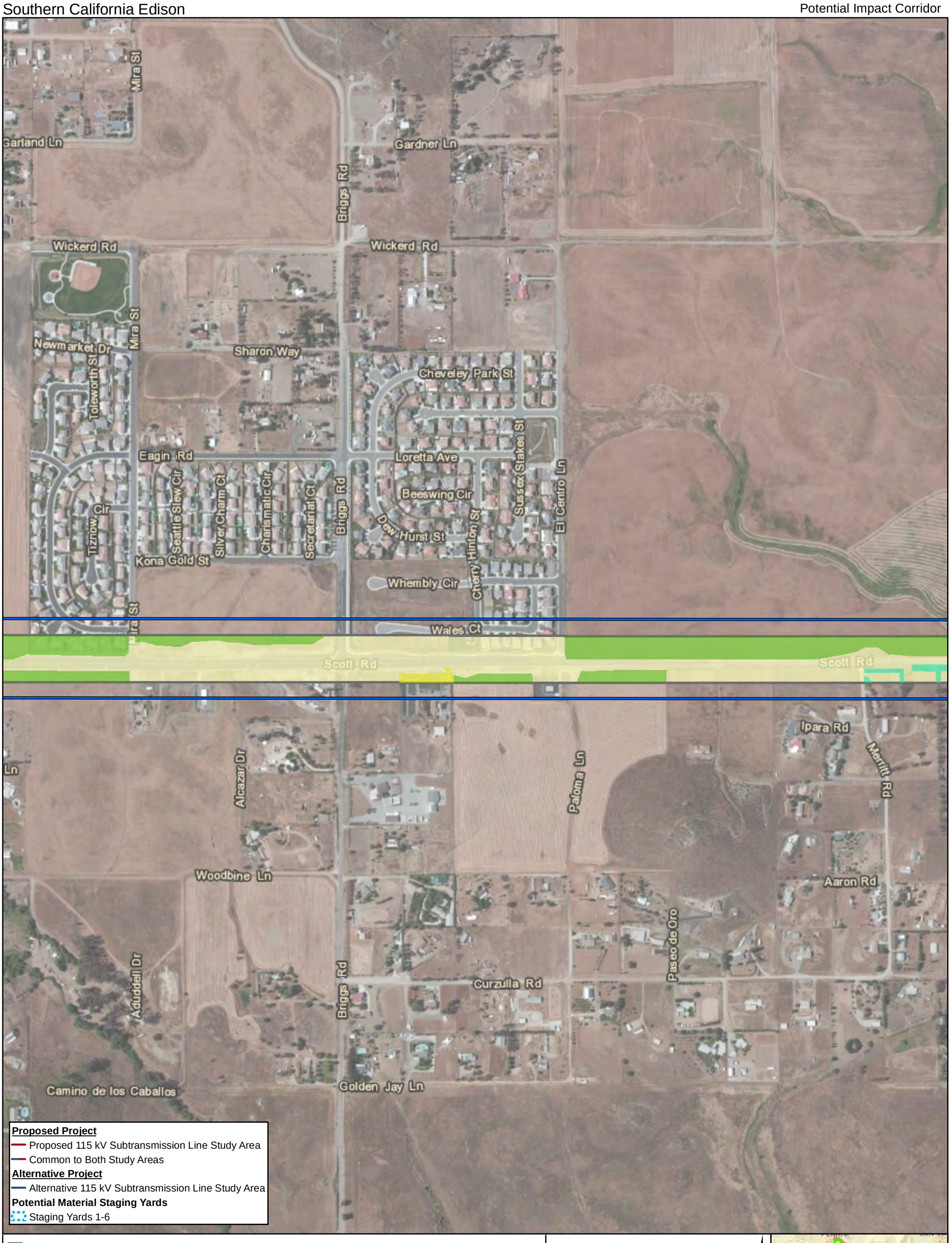
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
Agriculture
Eucalyptus
Nonnative Woodland / Ornamental

Sheet (17 of 22)

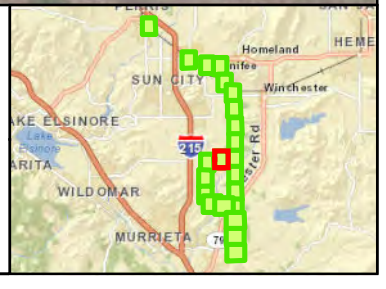
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Esri, 2014

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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
Agriculture
Eucalyptus
Nonnative Woodland / Ornamental
San Diego Mesa Claypan Vernal Pool

Sheet (18 of 22)

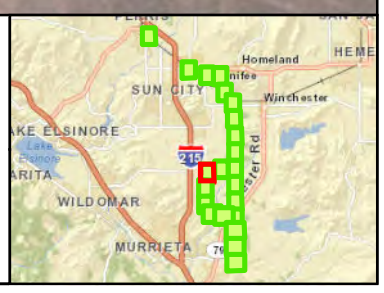
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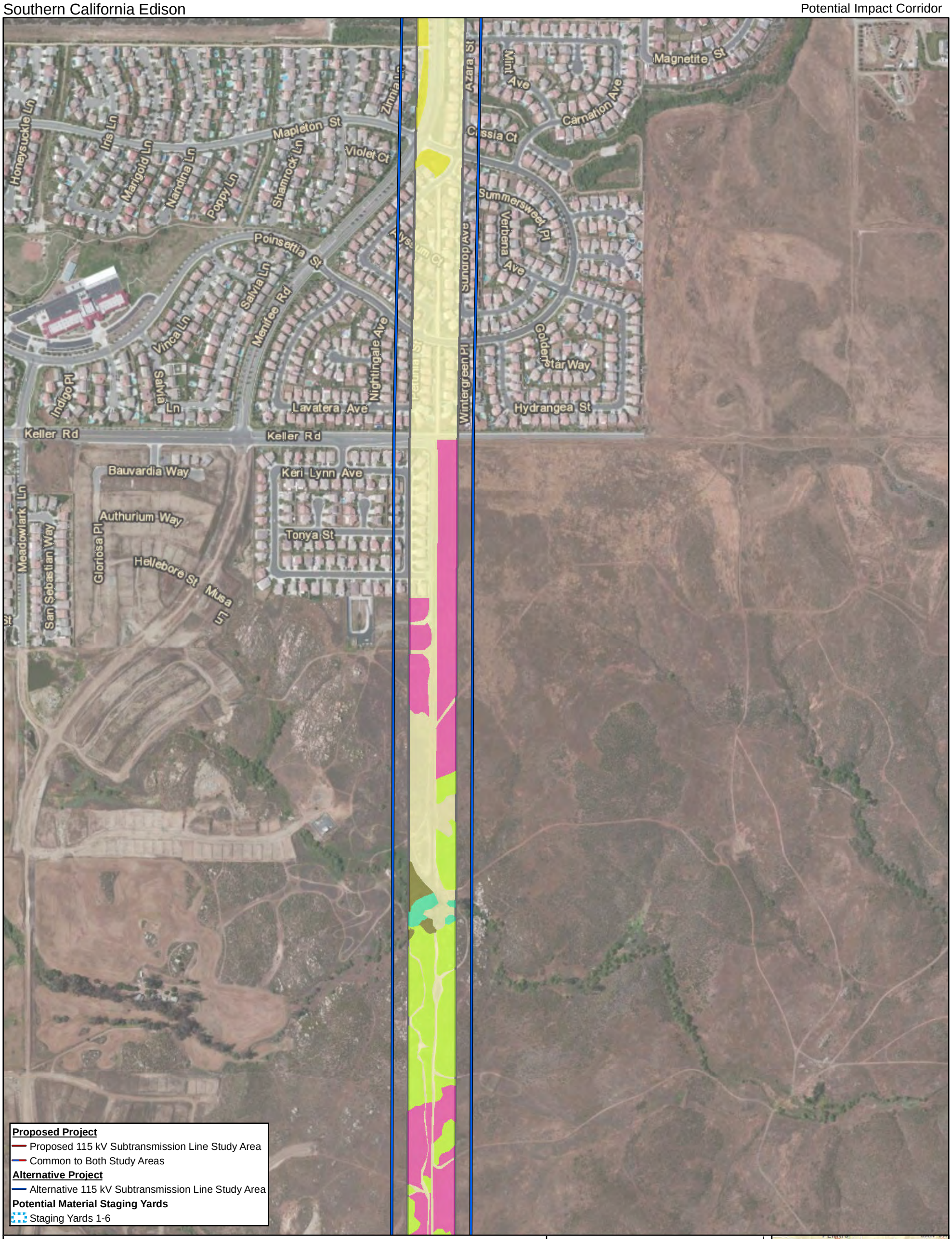
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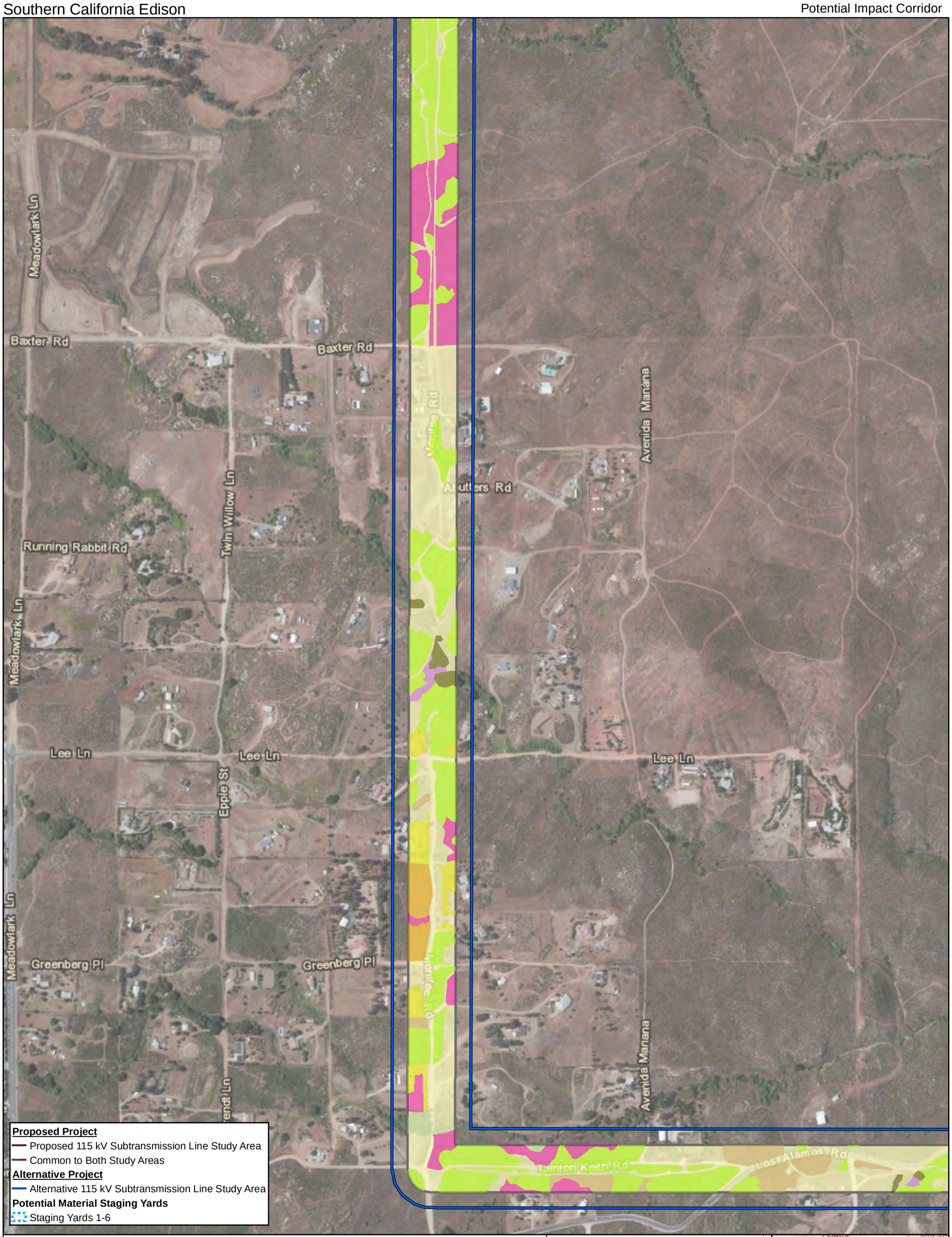
VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
Cen. Coast Arroyo Willow Riparian Forest
Chamise Chaparral
Coastal Sage - Chaparral Scrub
Diegan Coastal Sage Scrub
Nonnative Grassland
Nonnative Woodland / Ornamental
S. Cottonwood - Willow Riparian Forest
Southern Willow Scrub

Sheet (20 of 22)

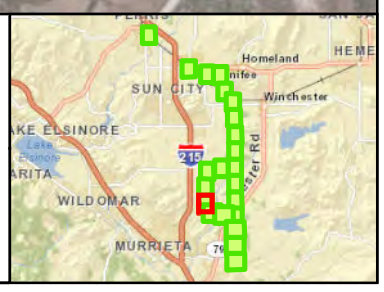
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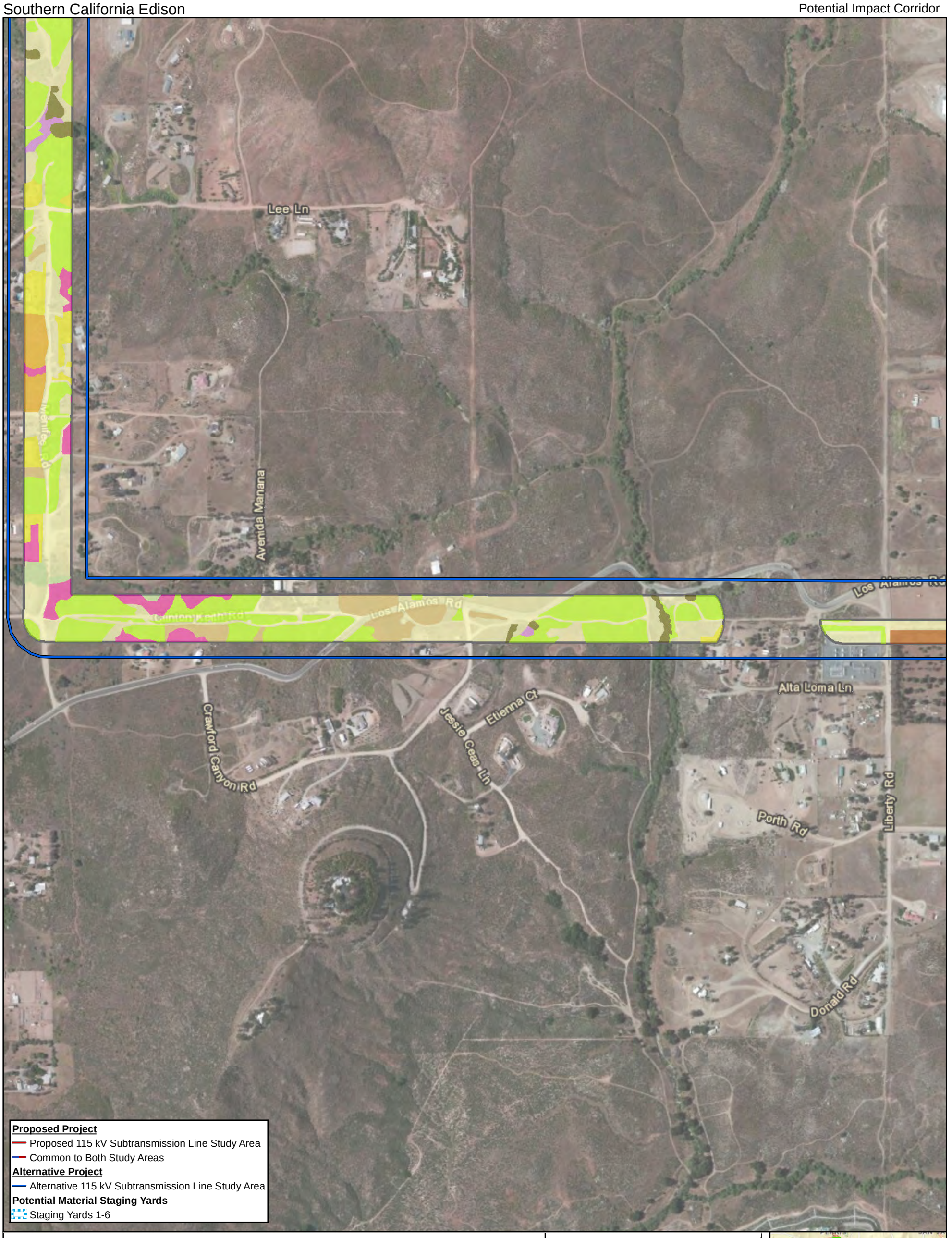


VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT

FIGURE 4.4-18

Southern California Edison

Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area
- Cen. Coast Arroyo Willow Riparian Forest
- Chamise Chaparral
- Coastal Sage - Chaparral Scrub
- Diegan Coastal Sage Scrub
- Disturbed / Ruderal
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- S. Cottonwood - Willow Riparian Forest
- Southern Willow Scrub

Sheet (21 of 22)

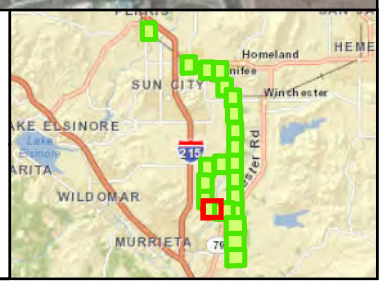
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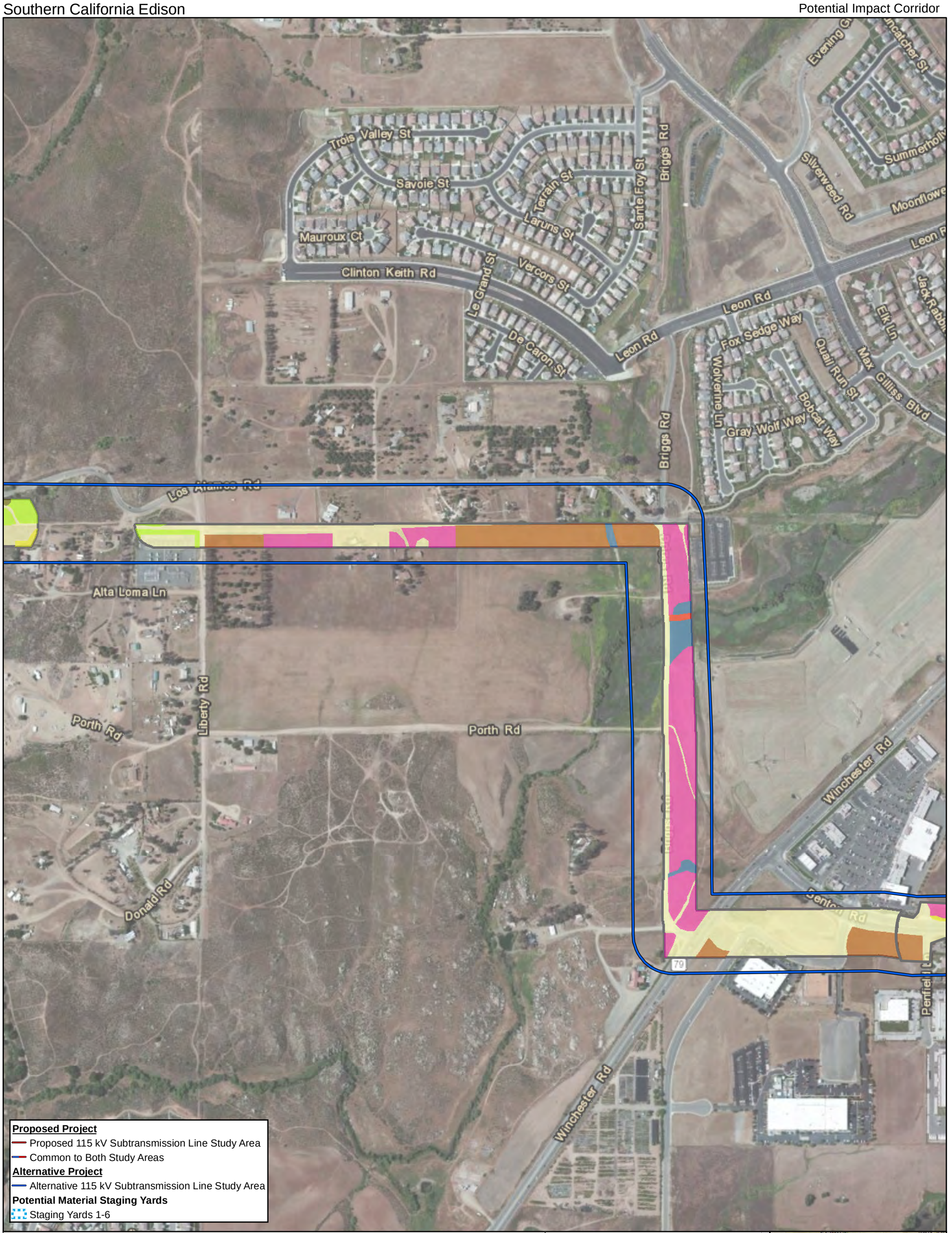
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VALLEY SOUTH 115 KV SUBTRANSMISSION PROJECT **FIGURE 4.4-18**

Southern California Edison Potential Impact Corridor



Impact Corridor
Developed / Disturbed / Urban - No New Impacts
Construction Work Areas Outside Study Area

Potential Impact Area

- Diegan Coastal Sage Scrub
- Disturbed / Ruderal
- Emergent Wetland
- Freshwater Marsh
- Nonnative Grassland
- Nonnative Woodland / Ornamental
- S. Cottonwood - Willow Riparian Forest

Sheet (22 of 22)

Sources:
SCE, 2014;
TRC 2013;
Aerial Image:
Esri, 2014

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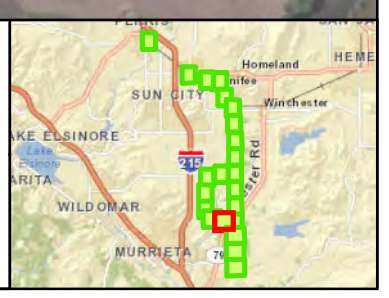


Table 4.4-9 Vegetation and Land Cover Types within the Proposed Project Potential Impact Corridor

Holland 1986[1]	Sawyer et al. 2009	Sensitive Vegetation Community	Segment 1 of the Proposed Project (Acres)[2]	Segment 2 of the Proposed Project (Acres)	Total for the Proposed Project (Acres)[3]
Mulefat Scrub (63310)	*Baccharis salicifolia* shrubland alliance	Yes	2.56	0.002	2.56
Southern Willow Scrub (63320)	*Baccharis salicifolia* shrubland alliance	Yes	0.22	0.10	0.32
Southern Cottonwood - Willow Riparian Forest (61330)	*Populus fremontii* forest alliance	Yes	0.02	0	0.02
Nonnative Grassland (42200)	*Bromus - Brachypodium distachyon* semi-natural stands and *Avena* semi-natural herbaceous stands	N/A	36.37	8.93	45.3
Disturbed/Ruderal Habitat (11300)[1]	*Bromus - Brachypodium distachyon* semi-natural stands	N/A	114.3	24.6	138.9
Diegan Coastal Sage Scrub (32500)	*Artemisia californica-Eriogonum fasciculatum* Shrubland Alliance *Artemisia californica-Salvia mellifera* Shrubland Alliance	Yes	14.1	6.1	20.2

Holland 1986[1]	Sawyer et al. 2009	Sensitive Vegetation Community	Segment 1 of the Proposed Project (Acres)[2]	Segment 2 of the Proposed Project (Acres)	Total for the Proposed Project (Acres)[3]
Nonnative Woodland/Ornamental (79000)	*Eucalyptus* Semi-Natural Woodland Stands[2] *Schinus* Semi-Natural Woodland Stand[2]	N/A	20.8	.32	21.1
Agriculture (18000)[1]	No counterpart	N/A	151.2	0	151.2
Total			**339.6**	**40.1**	**379.7**

Notes:

[1] Vegetation types not addressed in Holland 1986, so classified according to Oberbauer et al. 2008.

[2] Staging Yard Vegetation and Land Cover Types acres not included in impact analysis.

[3] Acreage calculations to the 10th decimal place are for estimation purposes only and should not be considered final impact totals.

Potential impacts from the Proposed Project are addressed here in the context of standard evaluation criteria under CEQA.

4.4.4.1 Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Construction

Less Than Significant Impact. Nineteen special status plant species and 34 special status animal species (see Section 4.4.1, Environmental Setting) are considered to have a moderate to high potential to occur within the Proposed Project Study Area, if not observed during surveys. Among these are federally or state listed species, CSSCs, raptors, CNPS rare species, and species covered under the WRCMSHCP. This suite of species collectively occupies all native and naturalized vegetation types (i.e., habitats) identified in Table 4.4-2 Vegetation and Land Cover Types within a 500-Foot Buffer of the Proposed Project, with the exception of actively maintained ornamental vegetation. Two outlying potential material staging yards proposed northwest of the Valley 500/115 kV Substation are developed or nonvegetated and occur in areas of rural development. As such, they provide no special status habitats nor potential to support special status species, so actions at these sites would cause no significant impacts.

Indirect impacts in the form of noise, dust, and vibration have the potential to disrupt breeding activities of special status species such as birds and amphibians. However, the potential for causing significant impacts to these species would be reduced to levels below significance

through participation in the WRCMSHCP and by application of APMs BIO-1, BIO-2, BIO-3, BIO-4, BIO-6, BIO-7, and BIO-8, below.

Diegan coastal sage scrub and other native shrub vegetation types provide habitat for several special status species, particularly birds. Approximately 14.1 acres of Diegan coastal sage scrub occurs within Segment 1 of the Proposed Project potential "Impact Corridor" and 41 acres occurs within Segment 2 of the Proposed Project potential "Impact Corridor." During construction, the locations for placement of work areas sited outside of these habitats to the extent feasible. Such avoidance in addition to participation in the WRCMSHCP and application of APMs BIO-1, BIO-2, BIO-3, BIO-4, BIO-6, and BIO-7 below would reduce impacts to these habitats to less than significant.

Small areas of nonnative woodland/ornamental vegetation comprising approximately 21.1 acres occurs within the Proposed Project potential "Impact Corridor". These tree stands provide nesting habitat for bird species, particularly raptors, which are considered sensitive. Vegetation removal, as presented in 3.7.1.5 Vegetation Clearance will be minimal and little removal of trees is anticipated. In addition, potential impacts would be further reduced to levels below significance by participation in the WRCMSHCP and application of APMs BIO-1, 2, BIO-3, and BIO-4 below.

During literature review and biological surveys of the Proposed Project, golden eagles were determined to have a moderate likelihood of migrating through the Proposed Project Study Area. Golden eagle is a fully protected state species and is federally protected by the BGEPA. Due to the protection status, take would not be issued for this species. The potential direct impact to this species from the Proposed Project is electrocution from perching on poles. During biological surveys, no suitable eagle nesting habitat or eagle nests were observed within the Proposed Project therefore, no indirect impacts to this species are expected because nesting habitat does not exist within the Proposed Project. With implementation of APM BIO-4, which defines avian-safe subtransmission line structures, potential impacts related to electrocution are considered less than significant.

The prevalence of disturbed herbaceous vegetation types composed of nonnative grassland, ruderal (usually fallow agriculture), and agricultural margins within the Proposed Project potential "Impact Corridor," combined with avoidance of more sensitive habitats, would result in the majority of construction and operation of the Proposed Project occurring in nonnative grasslands or other disturbed vegetation areas. These vegetation types support the occurrences of several special status species, including Stephens' kangaroo rat, smooth tarplant, San Diego ambrosia, burrowing owl, foraging raptors, orange-throated whiptail, and possibly Quino checkerspot butterfly, and spadefoot toad. Potential direct impacts to the herbaceous vegetation could occur through crushing by construction vehicles, scraping by vehicles and equipment, removal by earth-moving equipment, and soil compaction causing a change in hydrology. Potential indirect impacts could be the introduction of nonnative species. Participation within the WRCMSHCP and application of APMs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, and BIO-9, described further below, would reduce these impacts to a less than significant level. Inability to reduce impacts would require development of a DBESP analysis on a species-specific basis.

Surveys did not confirm listed species of vernal pool fairy shrimp, and based on the disturbed nature of the habitat and negative findings of the species, these species are not expected to occur within the Proposed Project Study Area. However, if listed Riverside or vernal pool fairy shrimp species are found as a result of APM BIO-1, SCE will address potential impacts to these species as a Participating Special Entity (PSE) under the provisions of the WRCMSHCP. In addition, the application of APM BIO-10 would aid in avoidance and minimization of impacts to these species and the fragile habitat in which they live.

The very southern end of Segment 2 of the Proposed Project spans 1,953.1 linear feet of USFWS-designated Critical Habitat for San Diego ambrosia; an area that is occupied by at least 6,315 individuals on clay soils in nonnative grassland. When the species was listed as endangered in 2002, one of the primary threats to survival was utility corridor construction (USFWS, 2009). Potential direct impacts from construction of the Proposed Project to San Diego ambrosia and the unit of Critical Habitat would be soil compaction, soil removal, soil grading, and/or alteration of hydrology and floodplain dynamics (such as channelization and water diversions) that interrupt normal surface flow or groundwater disrupting plant reproduction. Indirect impacts would be hydrology alteration, habitat alteration by nonnative plant species, and introduction of nonnative species, which could alter the surrounding vegetation and reduce the quality of Critical Habitat for San Diego ambrosia.

This portion of the Proposed Project involves reconductoring of existing transmission facilities. It is not anticipated that earth moving or removal will take place. However, soil compaction, alteration of hydrology, introduction of nonnative species, and direct crushing of individuals could occur during reconductoring activities. During the construction planning process, SCE would define placement of specific reconductoring activities in areas that would cause the least amount of direct and indirect impacts to this species. If individuals cannot be avoided, SCE would address potential impacts to these species as a PSE under the provisions of the WRCMSHCP. Further, applying APM BIO-1 and the General Impact Best Management Practices (BMPs) to avoid or minimize impacts to San Diego ambrosia habitat (addressed in Section 4.4.5, Applicant Proposed Measures) would reduce the potential impacts to this species to less than significant.

Overall, construction of Segment 1 of the Proposed Project is estimated to permanently impact approximately 14.2 acres within the potential "Impact Corridor," which is expected to represent no substantial change to the existing environment, as the majority of the construction activities would be pole replacements in previously disturbed areas associated with existing subtransmission facilities. Construction of Segment 2 of the Proposed Project is estimated to permanently impact approximately 0.0015 of an acre, less than one-half of 1 percent, within the potential "Impact Corridor," which is expected to represent no substantial change to the existing environment.

Operation

Less Than Significant Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's Operations and Maintenance (O&M) personnel. These activities are expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing

work is reviewed by SCE's Natural and Cultural Resources Division prior to implementation resulting in a less than significant impact to biological resources.

As presented in Chapter 3 and APM BIO-4, the Proposed Project (wood, light-weight steel, and TSPs) would be designed to be consistent with the Avian Power Line Interaction Committee's (APLIC's) Suggested Practices for Avian Protection on Power Lines: State of the Art in 2006 (APLIC Guidelines); this would reduce direct impacts to raptors. Therefore, impacts would be less than significant.

4.4.4.2 Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS?

Construction

Less Than Significant Impact. Sensitive natural communities are interpreted here as vegetation types consisting primarily of distinctive native plant species that define standard vegetation types (see Table 4.4-2 Vegetation and Land Cover Types within a 500-Foot Buffer of the Proposed Project).

Within the potential "Impact Corridor" of the Proposed Project, woody native trees and shrubs (i.e. willows and mulefat), and native shrubland, occur. Considering the occurrence of only 7.16 acres of woody riparian vegetation within the Proposed Project Study Area (see Table 4.4-9 Vegetation and Land Cover Types within the Proposed Project Potential Impact Corridor), and 7.69 acres of wetland or channels, avoidance of these vegetation types and jurisdictional wetlands is feasible through selective placement of structures and work areas. Therefore, direct effects to riparian habitat and other sensitive natural communities are expected to be avoided during construction.

Mulefat and willow scrub habitats, as indicated in Table 4.4-9 Vegetation and Land Cover Types within the Proposed Project Potential Impact Corridor, are not associated with jurisdictional waters (i.e., roadside occurrences). While considered habitat for special status species, Proposed Project activities in these areas would not be considered impacts to riparian or wetland areas. SCE's preliminary design anticipates spanning riparian and wetland habitats, avoiding direct impacts to wetlands, therefore impacts to riparian resources and associated special status species would be less than significant.

Potential direct impacts to other native vegetation communities could occur as a result of activities during construction of the Proposed Project through the removal of the plants or destruction of habitat. Activities that could destroy or adversely impact plant species include the use of heavy machinery, tree and vegetation removal, movement of equipment and materials, and access to the construction sites. Indirect impacts in the form of noise, dust, and vibration have the potential to disrupt breeding activities of riparian/wetland-dependent species such as birds and amphibians. However, the potential for causing significant impacts to these species would be reduced to levels below significance through participation in the WRCMSHCP and by application of APMs BIO-1, BIO-2, BIO-3, BIO-4, BIO-6, BIO-7, and BIO-8, below.

Construction activities (combined temporary and permanent impacts) would occur within the 509 acres along the Proposed Project (453.5 acres of Segment 1 and approximately 55.5 acres of Segment 2) (see Table 4.4-8 Potential Impact Acreages Within The Proposed Project Potential Impact Corridor). Approximately 2.9 acres of non–riparian sensitive habitats occur within the Proposed Project potential "Impact Corridor." As a result of APM BIO-1, efforts would be made to detect, mark, and avoid riparian vegetation, other wetlands, and native shrublands. The feasibility of such avoidance is high considering the relatively small acreages of the habitats and their discrete, scattered locations. Avoidance of these types is consistent with APMs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, and BIO-10, and is expected to reduce impacts to a level below significant. Inability to reduce impacts would require development of a DBESP analysis on a habitat-specific basis.

Operation

Less Than Significant Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's O&M personnel. These activities are expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing work is reviewed by SCE's Natural and Cultural Resources Division prior to implementation resulting in a less than significant impact to biological resources.

4.4.4.3 Would the project 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, and coastal) through direct removal, filling, hydrological interruption, or other means?

Construction

Less Than Significant Impact. Segment 1 of the Proposed Project Study Area intersects six jurisdictional wetland/water features that collectively comprise approximately 9.57 acres. Segment 2 of the Proposed Project Study Area intersects eight jurisdictional wetland/water features that comprise approximately 1.14 acres. Not all of these features support distinct wetland vegetation, and so are not distinguishable from the vegetation types within which they occur at the scale of mapping. Construction activities have the potential to either damage such features directly through grading or equipment movement, or indirectly through soil discharge and/or altered hydrology. However, work areas have been designed to avoid impacts to all wetland/water features and given the generally low-gradient topography of the Proposed Project, little to no earth moving is expected. Consequently, it is anticipated that direct and indirect impacts to these highly localized wetland features can be avoided by spanning wetland habitat, perimeter marking, careful siting of structures and work areas, and appropriate water use and soil movement measures. Impacts to jurisdictional waters are not anticipated. Therefore, only APM BIO-10 and other standard BMPs for soil and water management would be required, reducing potential impacts to less than significant. Impacts to regulated waters, habitats protected under CFGC 1600, are not covered through participation in the WRCMSHCP. However, if after final project design, or due to in-field project modifications, unavoidable impacts to jurisdictional wetlands or waters are identified, all appropriate regulatory permits will be obtained prior to the impact-related work.

Operation

Less Than Significant Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's O&M personnel. The activities are expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing work is reviewed by SCE's Natural and Cultural Resources Division prior to implementation resulting in a less than significant impact to biological resources.

Additionally, access routes, work areas, and other features would be properly designed and maintained to prevent discharge of soil into wetlands or substantially alter local hydrology. Such measures are expected to ensure that Proposed Project operational effects would be reduced to below the level of significance.

4.4.4.4 Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridor, or impede the use of native wildlife nursery sites?

Construction

Less Than Significant Impact. Segment 1 of the Proposed Project is anticipated to occur in a landscape that is currently dedicated primarily to agricultural and passive preservation land uses and, therefore, is relatively unconstrained in terms of wildlife movement. Much of the surrounding area has been converted to agricultural uses, and areas of dense human development and infrastructure are relatively small and discontinuous. The mosaic of vegetation and habitats is generally conducive to migratory and dispersal movements by animals in that it presents few significant barriers and hazards. Major watercourses are not tightly constrained by human development, are generally allowed to flow on the surface (as opposed to being channelized), and are intersected by relatively few major roadways. The most heavily traveled roadways in the local landscape, such as SR-79 and Domenigoni Parkway, are relatively few, are only two to four lanes wide, and are generally free of peripheral barriers to wildlife movement such as fences and walls. I-215, west of the Proposed Project, is a major freeway that likely constitutes a significant barrier and hazard to wildlife movement.

The southern portion of Segment 1 of the Proposed Project occurs within or immediately adjacent to an approximately defined biological core area recognized by the WRCMSHCP. Based on the existing development within the Proposed Project and the tenuous and conceptual nature of the biological core areas, it is determined that the Proposed Project would not adversely impact these biological core areas due to either avoidance measures or adherence to the WRCMSHCP. Constrained wildlife linkages are identified to the east and west in the WRCMSHCP, although the general rural development with patches of native vegetation, including drainages, to the north likely also supports animal movement. Biological connectivity to the east, albeit fragmented in places, leads to extensive wildlands in the foothills and mountains of the San Jacinto range.

Wildlife movement within Segment 2 of the Proposed Project is constrained by commercial and housing developments, the French Valley Airport, and roads. Habitat within the Proposed Project has been fragmented by agricultural uses and areas with dense human development, including housing and commercial uses and associated infrastructure.

Linkages for the WRCMSHCP within the area of Segment 2 of the Proposed Project are constrained linkages and include Proposed Constrained Linkage 18 and Existing Constrained Linkage E (Figure 4.4-16 Proposed and Alternative Projects in Context of WRCMSHCP). Also shown on this map is WRCMSHCP Proposed Core 2, which is discontinuous, with large areas of urban development interspersed within the core and lands, mainly to the east of Segment 2 of the Proposed Project. Proposed Core 2 is constrained in all directions by urban development and agricultural uses. The core provides key live-in habitat for Quino checkerspot butterfly. Wildlife movement can occur along the riparian habitat of an unnamed drainage in Proposed Constrained Linkage 18. This linkage connects Proposed Core 2 and Proposed Extension of Existing Core 7. The linkage is constrained by agricultural uses, and there is a large amount of edge effect here. Proposed Core 2 provides live-in and movement habitat for wildlife species. Existing Constrained Linkage E is within the Proposed Project and includes lower Tucalota Creek. This linkage provides nesting habitat for grasshopper sparrow (*Ammodramus savannarum*) and Bell's sage sparrow. Maintenance of floodplain along Tucalota Creek is important for this linkage. This linkage likely provides for movement of animals such as bobcat.

Barriers and hazards to dispersal within the Proposed Project include major roadways, dirt roads, subdivisions of homes, commercial developments, and areas under active agricultural production. Major watercourses are not tightly constrained by human development, are generally allowed to flow on the surface (as opposed to being channelized), and are intersected by relatively few major roadways.

Two outlying potential material staging yards northwest of the Valley 500/115 kV Substation occur in rural developed areas and present no impediment to wildlife movement. Additionally, one potential material staging yard is located within the Valley 500/115 kV Substation facility and the other is located east of the substation, across Menifee Road, in the Menifee Service Center.

The majority of the Proposed Project route follows moderately traveled, primarily two-lane, north/south roadways that present a varying degree of obstruction to east/west wildlife movement. The current level of obstruction would be somewhat exacerbated for animals such as mammals and reptiles by construction of the Proposed Project. Landscape movement by birds would be unaffected by construction impacts. However, Proposed Project work would remain fairly concentrated and noncontinuous, allowing for movement of animals between concentrated work areas. Furthermore, most animal dispersal occurs at night, and active construction would occur during the day, facilitating avoidance. Construction-phase impacts are anticipated to be less than significant in this regard.

Operation

Less Than Significant Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's O&M personnel. The activities are expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing work is reviewed by SCE's Natural and Cultural Resources Division prior to implementation resulting in a less than significant impact to biological resources. Additionally, the Proposed Project would not create continuous barriers or hazards to wildlife movement, and would not result in impediments to wildlife movement above current levels.

4.4.4.5 Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Construction

Less Than Significant Impact. The Proposed Project occurs in a predominantly open landscape with relatively few trees. The Proposed Project potential "Impact Corridor" includes only approximately 21 acres of tree-dominated vegetation, most of which is set back from immediate road edges where most of the subtransmission line would occur. Approximately 0.10 of an acre of the tree cover in the Proposed Project potential "Impact Corridor" consists of native trees. Trimming or removal of one or more native or nonnative trees to accommodate the line in certain locations, as well as at some access routes, staging areas, and pull sites may be required. Vegetation trimming and removal as outlined in 3.7.1.5 Vegetation Clearance would be minimal. Vegetation and trees identified by preliminary site assessments as requiring removal or trimming are provided in Appendix J, Tree Survey Report.

In such cases, the appropriate nondiscretionary permits under Heritage Tree ordinances enforced by some of the surrounding jurisdictions in Riverside County may be required. Such ordinances are incorporated into the WRCMSHCP. Appropriate avoidance measures must be taken relative to tree-nesting birds, as delineated in APMs BIO-1, BIO-2, BIO-3, BIO-4, BIO-6, BIO-7 and BIO-8. Construction impacts are, thus, expected to be reduced to a level less than significant.

Operation

Less Than Significant Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's O&M personnel. These activities are expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing work is reviewed by SCE's Natural and Cultural Resources Division prior to implementation resulting in a less than significant impact to biological resources.

Additionally, subtransmission facilities in close proximity to trees may require periodic trimming after the construction phase. Such action would be conducted under appropriate non-discretionary permits and would be conducted at a frequency sufficient to prevent incursion of tree foliage into the subtransmission line or other elements.

4.4.4.6 Would the project conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan?

Construction

Less Than Significant Impact. The Proposed Project occurs entirely within the areas of the WRCMSHCP and Stephens' Kangaroo Rat HCP. Each of these resource management plans provides specific requirements for projects that occur within their planning area.

SCE would specifically comply with all regulations and policies outlined in the WRCMSHCP and Stephens' Kangaroo Rat HCP. This would include the following:

a. Applying for coverage under the WRCMSHCP as a PSE with the Western Riverside County RCA by submitting all the required information that would enable RCA review of the project's consistency with WRCMSHCP and payment of the mandatory mitigation fee. Payment of the fee and a determination of consistency with the requirements of the WRCMSHCP are intended to provide full mitigation under CEQA, NEPA, CESA, and FESA for potential impacts to the species and habitats covered by the WRCMSHCP.
b. As an applicant for a PSE, SCE would conserve at least 90 percent of each population of species covered under the WRCMSHCP that are determined to occur within the area potentially affected by the Valley South 115 kV Subtransmission Project construction activities. If it is determined that at least 90 percent conservation of sensitive species population is not achievable, then SCE would seek a DBESP as set forth in Section 6.2.3 of the WRCMSHCP.
c. In addition to the requirements set forth in the WRCMSHCP, as a PSE, SCE will also contribute to WRCMSHCP implementation through payment of a fee based on the type of proposed activity, which shall be applicable to all activities in the Plan Area. For Regional Utility Projects, such as the Proposed Project, PSEs shall pay a fee in the amount of 5 percent of total capital costs for permanent impacts, as may be agreed to by the RCA. For portions and features of the Proposed Project that result in temporary impacts and disturbance, PSEs shall pay a fee in the amount of 3 percent of total capital costs, as may be agreed to by the RCA.
d. Compliance with the policies for the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools as set forth in Section 6.1.2 of the WRCMSHCP.
e. Compliance with the policies for the Protection of NEPS as set forth in Section 6.1.3 of the WRCMSHCP.
f. Compliance with survey requirements as set forth in Section 6.3.2 of the WRCMSHCP.
g. Compliance with the Urban/Wildlands Interface Guidelines as set forth in Section 6.1.4 of the WRCMSHCP.
h. Compliance with process for mitigation and/or contribution to Reserve Assembly for future facilities as set forth in Section 6.1.6 of the WRCMSHCP.

i. Applying for incidental take coverage under the Stephens' Kangaroo Rat HCP by paying the required fee. As with the WRCMSHCP, payment of the fee is intended to provide full mitigation to Stephens' kangaroo rat under CEQA, NEPA, CESA, and FESA and would provide compliance with the Stephens' Kangaroo Rat HCP.

To obtain coverage under the WRCMSHCP and Stephens' Kangaroo Rat HCP, the Proposed Project would be required to abide by the specific performance measures within the plans that direct how projects are approved, constructed, and operated. If aspects of the Proposed Project were to be conducted outside the conditions imposed by these plans, then the Proposed Project would be in conflict with those plans. SCE intends to comply with both the WRCMSHCP and Stephens' Kangaroo Rat HCP; therefore, impacts would be reduced to less than significant.

Operation

Less Than Significant Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's O&M personnel. These activities are expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing work is reviewed by SCE's Natural and Cultural Resources Division prior to implementation resulting in no conflict with provisions of an adopted HCP or other local conservation plan.

4.4.5 Applicant Proposed Measures

Based on the potential impact analysis to biological resources discussed above, the following impact avoidance and minimization measures are provided as recommendations for implementation. The BMPs are directed to general resource protection issues. These BMPs are expected to be communicated to construction and operation crews to be used where applicable.

Since SCE would be enrolled in the WRCMSHCP as a PSE, impacts that cannot be adequately avoided shall be compensated via the provisions of the WRCMSHCP. Resources identified during preconstruction surveys shall be added to the Worker Environmental Awareness Plan (WEAP) training and any site-specific information for work conducted within that area.

The APMs and BMPs are applicable to both the Proposed Project and Alternative Project (Section 4.4.6., Alternative 2).

APM BIO-1: Preconstruction Surveys and Construction Monitoring – Preconstruction biological clearance surveys shall be performed at specific construction and other work sites where potential biological resources are located to minimize impacts on special status wildlife and plant species. If special status species are present, biological monitors shall be on-site, as needed, and shall aid crews in implementing avoidance measures during construction. Special status species observations and avoidance measures will be reported to the appropriate wildlife agencies prior to construction in that area. In addition, appropriate agencies will be provided a monthly report summarizing all special status species observations and avoidance measures.

APM BIO-2: Nesting Bird Preconstruction Surveys – SCE would conduct preconstruction clearance surveys no more than 7 days prior to construction to determine the location of nesting birds and territories. Nesting survey results and avoidance measures, if applicable, will be reported to the appropriate wildlife agencies prior to construction in that area.

An avian biologist would establish a buffer area around active nest(s) and would monitor construction activities. The buffer would be established based on construction activities, potential noise disturbance levels, and behavior of the species. A monthly report summarizing all active nest observations and avoidance measures will be provided to the appropriate agencies on a monthly basis, during the nesting season, or until all active nests have been determined to be inactive.

APM BIO-3: Nesting Bird Management Plan– SCE shall develop a Nesting Bird Management Plan with input from CDFW. The plan shall include (1) nest management and avoidance; (2) field approach (survey methodology, reporting, and monitoring), including information related to areas of occupied habitat for coastal California gnatcatcher; and (3) avian biologist qualifications. Avian biologist(s) shall be subject to review and approval by CDFW, and shall be responsible for determining the buffer area around active nest(s). Biological monitors shall monitor nests and construction activities.

APM BIO-4: Avian Safe Design – The 115 kV subtransmission structures would be designed consistent with the Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006 (Avian Power Line Interaction Committee, 2006).

APM BIO-5: Stephens' Kangaroo Rat and Los Angeles Pocket Mouse Mitigation and Avoidance - An SCE qualified biologist shall conduct preconstruction surveys (see APM BIO-1) in suitable habitat for Stephens' kangaroo rat and Los Angeles pocket mouse at specific work areas along the Proposed Project and Alternative Project for impact avoidance and minimization.

To address impacts to Stephens' kangaroo rat, within the boundaries of the Stephens' Kangaroo Rat HCP, SCE shall apply to participate in the plan through an agreement with the Riverside County Habitat Conservation Agency (Riverside County, 1996).

To address impacts to Los Angeles pocket mouse, within the boundaries of the WRCMSHCP Plan Area, SCE shall apply to participate in the WRCMSHCP and shall follow provisions of the WRCMSHCP as they apply to this species.

Stephens' kangaroo rat and Los Angeles pocket mouse observations and avoidance measures will be reported to the appropriate wildlife agencies prior to construction in that area. In addition, appropriate agencies will be provided a monthly report summarizing all special status species observations and avoidance measures.

APM BIO-6: Burrowing Owl Preconstruction Surveys and Monitoring - A preconstruction nonprotocol burrowing owl survey shall be conducted no more than 30 days prior to commencement of ground-disturbing activities within suitable habitat to determine if any occupied burrows are present. SCE would establish a buffer area around active nest(s) and would monitor construction activities.

If occupied burrows or other evidence of presence are found, adequate buffers shall be established around burrows. Adequate buffers shall be 160 feet from occupied wintering burrows (December 1 through January 31) and 250 feet from occupied breeding burrows during the breeding season (February 1 through August 31). A qualified avian specialist may increase or reduce these buffer distances on a case-by-case basis.

Biologists shall monitor all construction activities that have the potential to impact active burrows.

In addition, potential unavoidable impacts to burrowing owl and its habitat shall be mitigated by participation in the WRCMSHCP. SCE's participation, as a PSE, shall include following the provisions and measures outlined in the WRCMSHCP.

All reporting requirements would be conducted as described in APMs BIO-1 and BIO-2.

APM BIO-7: Coastal California Gnatcatcher Impact Minimization and Mitigation – Avoidance of active nests shall be accomplished through APMs BIO-2 and BIO-3, described above.

In areas of occupied habitat for the coastal California gnatcatcher, a buffer area around active nest(s) would be established by the SCE biologist and provided to USFWS and CDFW for concurrence. The buffer would be established based on construction activities, potential noise disturbance levels, and behavior of the species.

Construction activities in occupied habitat/suitable habitat for the coastal California gnatcatcher, will be monitored by a qualified biologist.

SCE shall apply to participate in the WRCMSHCP and shall follow provisions of the WRCMSHCP as they apply to coastal California gnatcatcher. Where Proposed Project design allows, SCE shall avoid or minimize impacts to Diegan and coastal sage scrub vegetation.

All reporting requirements would be conducted as described in APMs BIO-1 and BIO-2.

APM BIO-8: Listed Riparian Birds Impact Minimization – Based on current design, SCE shall avoid direct construction impacts to riparian and other wetland habitats suitable for listed riparian bird species (least Bell's vireo, southwestern willow flycatcher). Avoidance of active nests shall be accomplished through APMs BIO-2 and BIO-3, described above.

All reporting requirements would be conducted as described in APMs BIO-1 and BIO-2.

APM BIO-9: Quino Checkerspot Butterfly Impact Minimization and Mitigation – To address impacts to Quino checkerspot butterfly, within the boundaries of the WRCMSHCP

Plan Area, SCE shall apply to participate in the WRCMSHCP and shall follow the provisions of the WRCMSHCP as they apply to this species.

All reporting requirements would be conducted as described in APMs BIO-1 and BIO-2.

APM BIO-10: Vernal Pool Resources – A qualified biologist shall conduct preconstruction marking of previously mapped basins suitable to support vernal pool species within the potential Proposed Project Impact Corridor and depict them on construction plans with specifications for avoidance. Facts about the vernal pool habitat and potential impacts from construction and O&M activities shall be included in the WEAP materials. Wet season protocol level surveys for special status vernal pool resources will be conducted prior to construction. If special status species are detected, SCE shall follow the provisions of the WRCMSHCP as they apply to these species.

All reporting requirements would be conducted as described in APMs BIO-1 and BIO-2.

4.4.5.1 General Impact Best Management Practices

In addition to species-specific avoidance and minimization measures, SCE shall implement more general BMPs designed to minimize adverse effects to lands, waterways, and biological features.

- WEAP training shall be implemented to increase understanding of environmental constraints and restrictions, introduce environmental monitors, identify contingent actions for certain circumstances, and establish lines of communication for resolution of unanticipated issues in the field
- Vehicles and other equipment shall remain on established roadways or approved access routes or work areas
- As feasible, SCE shall contain artificial lighting at work sites to within a small radius of designated work areas, should any night work be required; fugitive light shall not be allowed to extend significantly into surrounding natural habitats
- Control of fugitive dust per standard measures shall be implemented by SCE
- SCE shall clean up and restore areas that would be temporarily disturbed by construction of the Proposed Project to as close to preconstruction conditions as feasible or to the conditions agreed upon by landowners, SCE, and the appropriate agencies following the completion of construction
- If restoration occurs within sensitive habitats, a habitat restoration and revegetation plan shall be developed by SCE with the appropriate resource agencies and implemented after construction is complete

4.4.6 Alternative 2

The Alternative Project would be approximately 19 miles in total length and would extend approximately 4 miles longer than the Proposed Project. Segment 1 of the Alternative Project would follow a route identical to that of Segment 1 of the Proposed Project for the first approximately 8 miles, and then would turn west at Scott Road for approximately 2 miles to the

intersection of Menifee Road. Segment 1 of the Alternative Project would continue south on Menifee Road for approximately 3 miles, following an existing 115 kV subtransmission line to the intersection of unimproved Clinton Keith Road. From Clinton Keith Road, it would extend east for approximately 1 mile until its termination point near SCE's Auld 115/12 kV Substation, for a total of approximately 14 miles.

Segment 2 of the Alternative Project would begin at an existing TSP located east of Auld 115/12 kV Substation and would connect to the existing Valley-Auld-Triton 115 kV Subtransmission Line paralleling Los Alamos Road for approximately 0.5 of a mile until it reaches Briggs Road where it would turn south for approximately 0.5 of a mile. It would then span SR-79 in an easterly direction and parallel Benton Road for approximately 0.5 of a mile before merging with Segment 2 of the Proposed Project. At this location, Segment 2 of the Alternative Project would follow the same approximately 3-mile route as Segment 2 of the Proposed Project, for a total of 5 miles.

The Alternative Project along the shared approximately 8-mile and 3-mile portions of Segment 1 and Segment 2 would include the same improvements as the Proposed Project. Therefore, impacts along these shared areas would be the same as the Proposed Project.

The following discussion describes the resources and impacts where the approximately 6-mile portion of Segment 1 of the Alternative Project and 2-mile portion of Segment 2 of the Alternative Project would differ from the Proposed Project.

Refer to Sections 4.4.1, 4.4.2, and 4.4.5 for a description of the research, survey methodologies, the general biological resources, the regulatory setting, the APMs, and the general BMPs that are the same for both the Proposed Project and Alternative Project. To clearly describe the existing conditions of the Alternative Project, the vegetation and land cover types and the special status species that inhabit them will be described below, even though some of them are shared with the Proposed Project. The literature review and survey methods were the same as were conducted for the Proposed Project, and were performed for the Proposed Project and Alternative Project simultaneously. As was the case for the Proposed Project, biological surveys were performed by TRC for Segment 1 of the Alternative Project in 2012 and 2013, and AECOM for Segment 2 of the Alternative Project in 2013 and 2014.

The Alternative Project Study Area is that approximately 8-mile portion of the entire 19 mile Alternative Project that is distinct from the Proposed Project Study Area (Figure 4.4-1 Location Map).

Segment 1 of the Alternative Project

Segment 1 of the Alternative Project starting from the intersection of Scott Road and Leon Road until its termination point near Auld 115/12 kV Substation, would traverse through the City of Menifee, unincorporated Riverside County, and portions of the City of Murrieta. It would follow existing roadways, with the exception of one portion of the route that would follow existing SCE facilities to the intersection of unimproved Clinton Keith Road.

This section describes biological resources within Segment 1 of the Alternative Project, including vegetation communities, sensitive vegetation communities, special status biological

resources (including sensitive vegetation communities, jurisdictional wetlands and waters, special status plants, and special status wildlife), Critical Habitat, and wildlife corridors.

Vegetation Communities

Fourteen vegetation communities, subtypes, and other land cover types were documented and mapped within the Alternative Project Study Area and are described below. They are identified and quantified in Table 4.4-10 Vegetation and Land Cover Types within a 500-Foot Buffer of the Alternative Project, which includes vegetation type acreages for Segments 1 and 2 unique to the Alternative Project. Their distributions are depicted in Figure 4.4-4 Vegetation and Other Land Cover Types.

Table 4.4-10 Vegetation and Land Cover Types within a 500-Foot Buffer of the Alternative Project

Holland 1986	Sawyer et al. 2009	Sensitive Vegetation Community	Segment 1 of the Alternative Project 500-Foot Buffer (Acres)	Segment 2 of the Alternative Project 500-Foot Buffer (Acres)	Total Alternative Project 500-Foot Buffer (Acres)
Riparian Habitats					
Freshwater Marsh (52400)	*Typha*/*Schoenoplectus* herbaceous alliances	Yes	0.14	0.36	0.36
Emergent Wetland (52440)	*Persicaria-Xanthium strumarium* Provisional Herbaceous Alliance *Distichlis spicata* Herbaceous Alliance	Yes	0	5.43	5.43
Disturbed Wetland (11200)[1]	*Bolboschoenus maritimus* herbaceous alliance	Yes	0	0.06	0.06
Mulefat Scrub (63310)	*Baccharis salicifolia* shrubland alliance	Yes	0	0.21	0.21
Southern Willow Scrub (63320)	*Baccharis salicifolia* shrubland alliance	Yes	0.67	0.22	0.89
Tamarisk Scrub (63810)	*Tamarix* semi-natural shrubland stands	N/A	0	0.01	0.01

Holland 1986	Sawyer et al. 2009	Sensitive Vegetation Community	Segment 1 of the Alternative Project 500-Foot Buffer (Acres)	Segment 2 of the Alternative Project 500-Foot Buffer (Acres)	Total Alternative Project 500-Foot Buffer (Acres)
Central Coast Arroyo Willow Riparian Forest (61230)	*Salix lasiolepis* shrubland alliance	Yes	1.64	0	1.64
Southern Cottonwood - Willow Riparian Forest (61330)	*Populus fremontii* forest alliance	Yes	4.03	0	4.03
Vernal Pool Habitats					
San Diego Mesa Claypan Vernal Pool (44322)[1]	vernal pools, seeps, swales, and plains[2]	Yes	1.33	0	1.33
Upland Habitats					
Nonnative Grassland (42200)	*Bromus* - *Brachypodium distachyon* semi-natural stands and *Avena* semi-natural herbaceous stands	N/A	30.38	19.72	50.10
Disturbed/Ruderal Habitat (11300)[1,3]	*Bromus* - *Brachypodium distachyon* semi-natural stands *Avena* semi-natural herbaceous stands *Brassica* and Other Mustards Semi-Natural Herbaceous Stands	N/A	64.13	23.22	87.35
Diegan Coastal Sage Scrub: Inland Form (32520)	*Eriogonum fasciculatum* - *Salvia apiana* shrubland alliance	Yes	10.16	0	10.16

Holland 1986	Sawyer et al. 2009	Sensitive Vegetation Community	Segment 1 of the Alternative Project 500-Foot Buffer (Acres)	Segment 2 of the Alternative Project 500-Foot Buffer (Acres)	Total Alternative Project 500-Foot Buffer (Acres)
Diegan Coastal Sage Scrub (32500)	*Artemisia californica-Eriogonum fasciculatum* shrubland alliance *Artemisia californica-Salvia mellifera* shrubland alliance	Yes	45.70	2.07	47.77
Coastal Sage - Chaparral Scrub (37G00)	*Keckiella antirrhinoides* shrubland alliance	Yes	5.27	0	5.27
Chamise Chaparral (37200)	*Adenostoma fasciculatum* shrubland alliance	N/A	3.52	0	3.52
Nonnative Woodland/Ornamental (79000)[1]	*Eucalyptus* semi-natural woodland stands *Schinus* semi-natural woodland stands	N/A	17.09	0.32	17.40
Land Cover Types					
Agriculture (18000)[1]	No counterpart	N/A	49.95	0	49.95
Urban / Developed (12000)[1,4]	No counterpart	N/A	121.83	44.63	166.47
Total			**355.87**	**96.25**	**452.12**

Notes:

1 Vegetation types not addressed in Holland 1986, so classified according to Oberbauer et al. 2008.

2 Due to species composition, not resolvable to vegetation alliance level under this system.

3 Ruderal and Disturbed/Ruderal combined for Segment 1 of the Alternative Project.

4 Urban/Developed and Disturbed/Developed combined for Segment 1 of the Alternative Project.

Freshwater Marsh

This community is a dense thicket of southern cattail (*Typha domingensis*) and occurs in areas of standing water. Approximately 0.14 of an acre of freshwater marsh occurs in Segment 1 of the Alternative Project Study Area.

Southern Willow Scrub

Southern willow scrub is closely mixed with marsh growth and occurs on the relatively drier peripheries of riparian forest stands. This vegetation type is dominated by arroyo and/or red willow species, as well as lower-growing co-dominant species such as mulefat, Mexican elderberry, sandbar willow, black willow, and nonnative salt cedar. This vegetation also includes a high proportion of nonnative herbaceous wetland plants. Segment 1 of the Alternative Project Study Area has 0.67 of an acre of southern willow scrub.

Central Coast Arroyo Willow Riparian Forest

Although species composition varies among forest stands, the common element is the presence of one or more of the following species: arroyo willow (*Salix lasiolepis*), red willow, black willow, and yellow willow (*S. lasiandra*). Western sycamore (*Platanus racemosa*) occurs in some stands but generally appears to have been planted as part of restoration efforts. The Alternative Project Study Area has 1.64 acres of central coast arroyo willow riparian forest in Segment 1 of the Alternative Project, located in the southwestern portion.

Southern Cottonwood-Willow Riparian Forest

Several willow-dominated stands support varying proportions of Fremont cottonwood, the presence of which generally correlates with taller structure and indicates greater stand maturity and longevity. There is 4.03 acres of this vegetation primarily within the southwestern portion of Segment 1 of the Alternative Project Study Area.

San Diego Mesa Vernal Pool/Disturbed Ephemeral Basin

One localized San Diego Mesa Vernal Pool/Disturbed Ephemeral basin can provide wet conditions of sufficient seasonal duration to support prolonged growth of hydric and mesic herbaceous species, none of which are restricted to vernal pools. During subsequent biological studies (in early 2013), it was revealed the basin had been disked since summer of 2012 and no longer supported components needed for this vegetation community (TRC, 2013). The basin currently supports components of nonnative grasses that become more prevalent seasonally as the soil dries. This disturbed vegetation type also includes low wetland plant species such as common knotweed (*Polygonum aviculare* ssp. *depressum*), rush, spike rush, sedge, curly dock, salt grass, rabbit foot grass, and brass buttons. A small area of spreading navarretia (*Navarretia fossalis*) Critical Habitat occurs in this disturbed wetland basin. This disturbed ephemeral basin hydrology and vegetation covers 1.33 acres within Segment 1 of the Alternative Project Study Area and is located immediately northeast of the intersection of Menifee Road and Scott Road.

Nonnative Grassland

Nonnative grassland is an open vegetation type and provides potential habitat for rare plant species and Quino checkerspot butterfly. This area consists largely of nonnative species and is dominated by wild oat, with lesser amounts of various bromes, dot-seed plantain, and tarweeds. Nonnative grassland covers approximately 30.38 acres within Segment 1 of the Alternative Project Study Area.

Disturbed/Ruderal

Disturbed/ruderal is defined as consisting of nonnative, short-lived annual plants adapted to colonizing disturbed areas. Typical species vary depending on the location and level of disturbance, but are often dominated by herbaceous annuals and grasses. Species can include mustards, radish, wild oat, ripgut grass, foxtail chess, Australian saltbush, tocalote, fennel, telegraph weed, castor bean, pineapple-weed, sowthistle, horseweed, Russian thistle, tree tobacco, bristly ox-tongue, tarweeds, and goosefoot. Ornamental species may also colonize and proliferate in disturbed/ruderal communities. The disturbed/ruderal cover type is distributed across 64.13 acres within Segment 1 of the Alternative Project Study Area occurring on field edges, road margins, untended agricultural fields, and other areas previously mechanically disturbed, such as abandoned graded construction pads.

Diegan Coastal Sage Scrub: Inland Form

Diegan coastal sage scrub inland form shares the typical dominant shrub species with the coastal form of Diegan coastal sage scrub. The inland form also includes a higher proportion of taller, woody species such as white sage and bush penstemon, resulting in a taller, denser structure. These vegetation subtypes occur on lower-elevation, more-exposed, and highly drained slopes relative to other shrub types, therefore existing under the harshest conditions in the landscape. There is 10.16 acres of this vegetation type in the Segment 1 of the Alternative Project Study Area.

Diegan Coastal Sage Scrub

The areas of Diegan coastal sage scrub are fairly open and dominated by low-growing semi-woody shrubs such as California sagebrush, California buckwheat, and black sage. Diegan coastal sage scrub is uniformly dominated by buckwheat. California sagebrush occurs in varying proportions but is rarely equal to buckwheat in dominance. Brittle bush, which is an indicator of desert transition conditions, is very infrequent, suggesting coastal affinities of the vegetation. Common associates include deerweed and white sage. Cacti such as littoral prickly-pear and cholla occur in small proportions. A total of 45.70 acres of Diegan coastal sage scrub occurs in Segment 1 of the Alternative Project Study Area, mainly along hill slopes with large granitic outcrops.

Coastal Sage – Chaparral Scrub

Coastal sage – chaparral scrub occurs within the transition area located between Diegan coastal sage scrub and chamise chaparral, and is composed of species from both vegetation communities. Buckwheat is still the common element to all stands, but California sagebrush is

more prevalent and other species such as white sage, black sage, bush penstemon, spiny red berry (*Rhamnus crocea*), skunk brush (*Rhus trilobata*), thick leaf yerba santa (*Eriodictyon crassifolium*), and deerweed occur in variably high proportions. In the Segment 1 of the Alternative Project Study Area, 5.27 acres of coastal sage – chaparral scrub occurs near Clinton Keith Road.

Chamise Chaparral

Chamise chaparral differs from coastal sage scrub in being composed of species with taller stature that grow in higher density. Two small stands of chaparral consisting solely of chamise (*Adenostema fasciculatum*) occur in the Alternative Project Study Area. There is 3.52 acres of chamise chaparral habitat within Segment 1 of the Alternative Project Study Area.

Nonnative Woodland/Ornamental

Areas mapped as nonnative woodland/ornamental consist of stands of trees that are entirely, or primarily, composed of one or more species of eucalyptus, including silver dollar gum eucalyptus and blue gum. Eucalyptus stands often provide nesting habitat for birds of prey. Approximately 17.09 acres of mapped nonnative woodland/ornamental stands is located within Segment 1 of the Alternative Project Study Area.

Agriculture

The predominant form of agriculture in the inter-mountain lowland area of western Riverside County is dry grain cultivation, particularly wheat. Agriculture is confined to valley bottoms and low-gradient slopes and is characterized by monocultures of crops requiring cultivation (ground disturbance) and subject to regular, mechanical harvest. Actively tended agricultural lands cover 49.95 acres within Segment 1 of the Alternative Project Study Area.

Urban/Developed

Urban/developed areas consist of ornamental, residential, commercial, infrastructure, and roadway development. These areas may include some planted, nonnative vegetation. A total of 121.83 acres of urban/developed cover type occurs within Segment 1 of the Alternative Project Study Area.

Special Status Biological Resources

The special status biological resources are shared by the Proposed Project and Alternative Project. The same suite of 19 special status plants and 34 special status animal species have a medium to high likelihood of detection within Segment 1 of the Alternative Project. For more information on special status wildlife, see Appendix F BRA Segment 1 and Segment 2.

Sensitive Vegetation Communities

Some of the vegetation communities occurring within the Alternative Project Study Area are considered sensitive or have other special status by virtue of natural rarity, geographic restriction combined with historic decline from human development, and/or association with watercourses.

Many of these vegetation communities provide or support specialized habitat conditions for special status plant or animal species. See Table 4.4-10 Vegetation and Land Cover Types within a 500-Foot Buffer of the Alternative Project and Figure 4.4-4 Vegetation and Other Land Cover Types for acreages and distributions of sensitive vegetation communities, and Section 4.4.2, Regulatory Setting, for a review of applicable laws.

Riparian communities in southern California, including woody scrub types, are typically considered sensitive by federal and state resource agencies. Estimated historical losses of riparian habitat in southern California range as high as 95 to 97 percent. Habitat destruction and degradation have resulted from wetland conversion for agricultural purposes, urban development, and flood control projects. Riparian vegetation provides shelter, food, and breeding habitat for numerous plant and wildlife species.

Coastal sage scrub (including Diegan coastal sage scrub) is considered a sensitive habitat type by federal and state resource agencies, local jurisdictions, and conservation organizations throughout southern California. Losses of up to 85 percent have been estimated for coastal sage scrub in southern California, largely attributable to residential development and agricultural activities. The trend for continued losses has resulted in the selection of this community as the focus of California's first habitat-based conservation planning process, the NCCP program. Coastal sage scrub provides habitat for coastal California gnatcatcher, a federally threatened species, as well as a variety of other animal and plant species that are candidates for federal listing, CSSCs, or considered sensitive by local jurisdictions.

Jurisdictional Waters and Wetlands

Segment 1 of the Alternative Project supports 12 wetlands or water features that are potentially subject to jurisdiction under USACE, RWQCB, and/or CDFW. These features include Salt Creek and Warm Springs Creek, as well as 10 unnamed ephemeral to intermittent drainages. The location and limits of the USACE and RWQCB jurisdictional areas are depicted in Figure 4.4-5 USACE and RWQCB Waters Jurisdiction, and those of the CDFW jurisdictional areas are depicted in Figure 4.4-6 CDFW Waters Jurisdiction. The potential USACE jurisdiction within Segment 1 of the Alternative Project Study Area totals 5.04 acres, of which 4.55 acres is wetland and 0.49 of an acre is waters of the U.S. Acreages of USACE jurisdiction for individual features are summarized in Table 4.4-11 Summary of Potential 401 and 404 Jurisdiction for Segment 1 of the Alternative Project.

Table 4.4-11 Summary of Potential 401 and 404 Jurisdiction for Segment 1 of the Alternative Project

Feature Name	Waters of the U.S. (Acres)	Wetland Areas (Acres)	Total USACE Jurisdiction (Acres)	Approximate Linear Feet
Salt Creek	0	4.30	4.30	500
Feature 4	0.04	0	0.04	1,390

Feature Name	Waters of the U.S. (Acres)	Wetland Areas (Acres)	Total USACE Jurisdiction (Acres)	Approximate Linear Feet
Feature 10	0	0.07	0.07	75
Feature 11	0.11	0	0.11	1,610
Feature 12	0.12	0.02	0.14	2,420
Feature 13	0.18	0	0.18	1,745
Feature 14	0.02	0	0.02	655
Warm Springs Creek	0.02	0.16	0.18	990
Total	**0.49**	**4.55**	**5.04**	**9,385**

Salt Creek, Warm Springs Creek, and six drainage features within Segment 1 of the Alternative Project have been determined to be USACE jurisdictional waters subject to regulation pursuant to Sections 401 and 404 of the CWA. However, four features are isolated waters that are potentially not subject to USACE jurisdiction. While these features are potentially outside of USACE jurisdiction, they may still be subject to WDRs from the RWQCB pursuant to Section 13260 of Porter-Cologne. The totals of these isolated features are summarized in Table 4.4-12 Summary of Potential RWQCB Jurisdiction Subject to WDR Requirements for Segment 1 of the Alternative Project.

Table 4.4-12 Summary of Potential RWQCB Jurisdiction Subject to WDR Requirements for Segment 1 of the Alternative Project

Feature Name	Waters Areas (Acres)	Wetland Areas (Acres)	Total RWQCB Jurisdiction (Acres)	Approximate Linear Feet
Feature 1	0.38	0	0.38	1,380
Feature 2	0.68	0	0.68	1,620
Feature 3	0.11	0	0.11	1,550
Feature 9	0	1.33	1.33	N/A
Total	**1.17**	**1.33**	**2.50**	**4,550**

CDFW has jurisdiction over 9.53 acres of wetlands within Segment 1 of the Alternative Project, of which 8.13 acres consists of vegetated riparian habitat and 1.40 acres consists of unvegetated streambed. Only Feature 9 is likely not under CDFW 1602 jurisdiction due to its isolation and lack of defined bed and bank. CDFW jurisdiction includes all areas within USACE jurisdiction and areas potentially subject to WDR requirements (except Feature 9), in addition to adjacent

associated riparian vegetation. The acreages of all features mapped during the field survey are listed in Table 4.4-13 Summary of CDFW Jurisdiction for Segment 1 of the Alternative Project.

Table 4.4-13 Summary of CDFW Jurisdiction for Segment 1 of the Alternative Project

Feature Name	CDFW Unvegetated (Acres)	CDFW Riparian (Acres)	Total CDFW Jurisdiction (Acres)	Approximate Linear Feet
Feature 1	0.38	0	0.38	1,380
Feature 2	0.63	0.32	0.95	1,620
Salt Creek Channel	0	4.30	4.30	500
Feature 3	0.11	0	0.11	1,550
Feature 4	0.04	0	0.04	1,390
Feature 10	0	0.07	0.07	75
Feature 11	0.08	0.60	0.68	1,610
Feature 12	0.08	0.84	0.92	2,420
Feature 13	0.05	1.26	1.31	1,745
Feature 14	0.01	0.08	0.09	655
Warm Springs Creek	0.02	0.66	0.68	990
Total	**1.40**	**8.13**	**9.53**	**13,935**

Special Status Plant Species

Sixty-one special status plant species were identified from the literature review (see Figure 4.4-8 Existing Resource Data for Special Status Plants for those species with documented local records) and other sources (e.g., local experts, presence of habitat conditions, the list of WRCMSHCP covered plant species). See Appendix F BRA Segment 1 and Segment 2 for detailed information. Of those, 11 special status plant species were detected during biological surveys. The special status plant species that were detected within Segment 1 of the Alternative Project are discussed below, and their locations can be seen in Figure 4.4-9 Special Status Plant Species.

Parry's Spineflower (CNPS List 1B.1)

Parry's spineflower occurs within the alluvial chaparral and scrub. This species is known from the flats and foothills (Reveal, 1989), where it blooms between April and June. Parry's spineflower was observed in openings within coastal sage scrub vegetation in Segment 1 of the Alternative Project Study Area and was generally associated with granitic soils. Observations were often associated with biotic crusts located below granite outcroppings and indicative of undisturbed soils. Approximately 25 individuals were identified at various locations within

Segment 1 of the Alternative Project Study Area surrounding the Clinton Keith Road and Menifee Road alignments including an area north of the junction of Menifee Road and Lee Lane (Figure 4.4-9 Special Status Plant Species) (TRC, 2013).

Long-Spined Spineflower (CNPS List: 1B.2)

Long-spined spineflower is associated primarily with heavy, often rocky, clay soils in southern needlegrass grassland, and openings in coastal sage scrub, and chaparral (Reiser, 2001). It blooms between April and July. Long-spined spineflower was observed within Diegan coastal sage scrub and nonnative grassland in shallow clay soil lenses. The largest population of long-spined spineflower was observed southeast of the Menifee Road and Keller Road intersection, within Segment 1 of the Alternative Project Study Area (TRC, 2013), in the disturbed grassland and open coastal sage scrub. Several thousand plants were observed. Most of these were on the margins of the dirt road and in bare patches in the field. The part of this population that extended beyond the boundary of the Alternative Project Study Area was neither mapped nor counted. The location of this stand is shown in Figure 4.4-9 Special Status Plant Species. More than 5,500 individuals were observed along Menifee Road, within Segment 1 of the Alternative Project Study Area. Also within Segment 1 of the Alternative Project Study Area, along Briggs Road, south of Los Alamos Road, approximately 500 individuals of long-spined spineflower were observed in an area of 4,000 square feet (AECOM, 2014a) (Figure 4.4-9 Special Status Plant Species).

Clustered Tarweed (CNPS List 4)

Clustered tarweed is an herbaceous annual that blooms between May and September. It was observed in large numbers throughout Segment 1 of the Alternative Project Study Area. Observations were primarily located in nonnative grassland habitat, but this species also occurred in mulefat scrub, Diegan coastal sage scrub, disturbed areas, southern willow scrub, and freshwater marsh habitats. Observations were frequently associated with seasonally mesic sites such as swales or minor changes in topography. Although exact counts of the species were not collected, it is estimated that 10,000 to 20,000 individuals occur within Segment 1 of the Alternative Project Study Area (TRC, 2013) (Figure 4.4-9 Special Status Plant Species). Observations of this species were unique to Segment 1 of the Alternative Project, meaning this species was not observed in the Proposed Project Study Area.

San Diego Tarweed or Paniculate Tarplant (CNPS List 4)

San Diego tarweed, also known as paniculate tarplant, is a tall herbaceous annual that blooms between April and November. It is found in open or disturbed sites, including grasslands, coastal scrubs, woodlands, vernal pools, and disturbed/ruderal areas. This species was observed in extremely large quantities throughout Segment 1 of the Alternative Project Study Area. Similar to clustered tarweed, observations of San Diego tarweed / paniculate tarplant are primarily located in nonnative grassland habitat, but it also occurs within mulefat scrub, Diegan coastal sage scrub, disturbed vegetation, southern willow scrub, and freshwater marsh habitats. San Diego tarweed/paniculate tarplant was often observed in association with seasonally mesic sites, such as swales or minor changes in topography. Although exact counts of the species were not

collected, it is estimated the populations within Segment 1 of the Alternative Project Study Area number in the tens of thousands (TRC, 2013) (Figure 4.4-9 Special Status Plant Species).

Small-Flowered Morning-Glory (CNPS List 4.2)

Small-flowered morning-glory is a CNPS List 4.2 species. This plant is a low-growing annual herb found on friable clay soils that are typically devoid of shrubs and in openings in chaparral, sage scrub, and grasslands (Reiser, 2001). Small-flowered morning-glory typically blooms from March through July and occurs from approximately 100 to 2,300 feet in elevation in northwestern California, from western Contra Costa County south through San Diego County, and northwestern Baja California, Mexico (CDFW, 2014a).

Small-flowered morning-glory was observed in scattered populations on clay soils within areas of nonnative grassland and openings in Diegan coastal sage scrub. Small-flowered morning-glory was found carpeting the dirt utility access road (extension of Menifee Road) south of Keller Road (TRC, 2013) in Segment 1 of the Alternative Project. In the early spring, the population covered a swath approximately 100 feet wide and numbered at least a thousand plants, but by late spring most were dead (dry) and the species was barely visible.

Robinson's Peppercress (CNPS List 1B.2)

Robinson's peppercress is an erect and rather bushy annual traditionally distinguished from its nearest relatives by its short stature, deeply dissected leaves, branching low on the stem, and a terete pedicel. This subspecies is not recognized by the Jepson Manual II (Baldwin et al., 2012) and is lumped with taller plants having a flattened pedicel, under the name *Lepidium virginicum* subspecies (ssp.) *menziesii*. To date, it is not known what the status of this plant will be in the future or even if the two subspecies of *Lepidium virginicum*, which are differentiated in the field, will be differentiated by academics.

A single population of about five plants was found in a seepy, roadside ditch on the south side of Los Alamos Road at its crossing with Warm Springs Creek, within Segment 1 of the Alternative Project Study Area (TRC, 2013) (Figure 4.4-9 Special Status Plant Species).

Special Status Wildlife Species

As determined through literature searches (see Figure 4.4-10 Existing Resources Data for Birds, Amphibians, and Reptiles and Figure 4.4-11 Existing Resources Data for Invertebrates and Mammals) within the Proposed Project, 72 special status animal species were determined to have the potential to occur. Of those, 34 were documented during field surveys for the Proposed Project. Special status wildlife species were evaluated for the probability of occurrence based on conditions observed in the field. For more information on special status wildlife, see Appendix F BRA Segment 1 and Segment 2.

Locations of special status wildlife species documented during the course of field surveys are mapped in Figure 4.4-12 Special Status Bird Species, Figure 4.4-13 Special Status Mammal Species, and Figure 4.4-14 Amphibians and Reptile Species,. Included in Figure 4.4-12 Special Status Bird Species are raptor (bird of prey) species potentially nesting in or near the Alternative Project. These are regarded as sensitive resources by USFWS and CDFW.

The following summarizes the survey results for listed, fully protected, and otherwise special status animal species in the Alternative Project. All surveys for Segment 1 of the Alternative Project were conducted in 2012, except for fairy shrimp and Quino checkerspot butterfly surveys, which were conducted in 2013. See the Field Surveys section in Section 4.4.1, Environmental Setting, for more detailed information on survey methods.

Great Blue Heron (California Special Animal)

There is suitable foraging habitat for great blue heron (*Ardea herodias*) within Segment 1 of the Alternative Project, and this species has moderate potential to nest within the Alternative Project Survey Area. However, this species was not found during biological surveys.

Coastal California Gnatcatcher (Federally Threatened, CSSC, WRCMSHCP Covered Species)

A protocol survey for coastal California gnatcatcher determined all significant patches of coastal sage scrub within Segment 1 of the Alternative Project Survey Area to be occupied by this species. Four to five persistent locations were assumed to contain breeding pairs. Reproduction was documented at two locations, both within Segment 1 of the Alternative Project (TRC, 2013). These locations occur along Menifee Road and Thompson Road (Figure 4.4-12 Special Status Bird Species).

Least Bell's Vireo (Federally Endangered, California Endangered, WRCMSHCP Covered Species)

A singing least Bell's vireo was detected during protocol surveys conducted for Segment 1 of the Alternative Project, but breeding was not confirmed (TRC, 2013). During surveys in 2014, one singing male was detected in Survey Area 3, within Segment 2 of the Alternative Project (Figure 4.4-12 Special Status Bird Species). During the survey conducted on June 9, 2014, a breeding pair was confirmed in Survey Area 3 as two adult least Bell's vireos were observed together and begging calls of a chick in a nest were heard nearby (Figure 4.4-12 Special Status Bird Species). During survey 7 on June 30, 2014, a family group of least Bell's vireos (with at least one juvenile) was detected in Survey Area 3.

Southwestern Willow Flycatcher (Federally Endangered, California Endangered, WRCMSHCP Covered Species)

Willow flycatchers were detected within the Alternative Project Survey Area during protocol surveys, but the endangered southwestern subspecies was not confirmed. During 2012 surveys of Segment 1 of the Alternative Project, a migrant bird was detected on Warm Springs Creek (TRC, 2013) (Figure 4.4-12 Special Status Bird Species). This single occurrence suggests that the bird was a transient migrant.

Western Burrowing Owl (Federal Bird of Conservation Concern, CSSC, WRCMSHCP Covered Species)

No burrowing owls were detected during 2012 surveys conducted for Segment 1 of the Alternative Project. However, this species has been previously detected during surveys conducted for the Triton Substation Project within Segment 2 of the Alternative Project, south of

the intersection of Benton Road and Leon Road (SCE, 2008) (Figure 4.4-10 Existing Resource Data for Birds, Amphibians, and Reptiles). Additionally, multiple CNDDB records document this species occurring within 3 miles of the Alternative Project (CDFW, 2014a) (Figure 4.4-10 Existing Resource Data for Birds, Amphibians, and Reptiles). Burrowing owls were not observed within Segment 1 of the Alternative Project, but suitable habitat exists, and there are numerous records for occurrences in the vicinity (TRC, 2013; AECOM, 2014a). Although they were not detected during surveys, the likelihood of burrowing owls inhabiting the Alternative Project Survey Area remains high.

Costa's Hummingbird (California Special Animal)

There is a high likelihood for Costa's hummingbird (*Calypte costae*) to occur within Segment 1 of the Alternative Project, but none were observed during biological surveys (TRC, 2013; AECOM, 2014a).

Black-Crowned Night Heron (California Special Animal, WRCMSHCP Covered Species)

Black-crowned night heron (*Nycticorax nycticorax*) was not detected within Segment 1 of the Alternative Project; it has a moderate likelihood of occurring as it was detected within Segment 2 of the Proposed Project.

White-Faced Ibis (California Watch List, WRCMSHCP Covered Species)

White-faced ibis (*Plegadis chihi*) was not detected within Segment 1 of the Alternative Project, but this species has a moderate potential to occur within Segment 1 of the Alternative Project Area as it was detected within the Proposed Project (AECOM, 2014a).

American Kestrel (Sensitive Raptor Species)

American kestrel is known to occur within Segment 1 of the Alternative Project; it was detected near the intersection of Thompson Road and Briggs Road (TRC, 2013) (Figure 4.4-12 Special Status Bird Species).

Bell's Sage Sparrow (Bird of Conservation Concern, California Watch List, WRCMSHCP Covered Species)

A population of Bell's sage sparrow was documented within Segment 1 of the Alternative Project Survey Area, located along Menifee Road (TRC, 2013) (Figure 4.4-12 Special Status Bird Species).

California Horned Lark (CSSC, WRCMSHCP Covered Species)

California horned lark is known to occur at the edges of active agricultural fields and in disturbed but inactive fields within Segment 1 of the Alternative Project (TRC, 2013) (Figure 4.4-12 Special Status Bird Species). This species was detected near Briggs Road and Benton Road.

Grasshopper Sparrow (California Species of Concern)

There is a moderate potential for grasshopper sparrow to use Segment 1 of the Alternative Project for both foraging and nesting, but none were detected during biological surveys (TRC, 2013; AECOM, 2014a).

Yellow Warbler (Federal Bird of Conservation Concern, California Watch List Species, and WRCMSHCP-Covered Species)

Yellow warbler (*Dendroica petechial*) is associated with mature riparian forest consisting of willow, cottonwood, aspen, sycamore, or alders for nesting and foraging, but this species will also nest in montane shrubbery in open conifer forests (Unitt, 2004). Although this species was not detected within Segment 1 of the Alternative Project, it has a moderate potential to occur due to its presence within Segment 2 of the Alternative Project (AECOM, 2014a).

White-Tailed Kite (California Fully Protected Species, WRCMSHCP Covered Species)

White-tailed kites were documented at several locations within and adjacent to the Alternative Project Survey Area (TRC, 2013). A family group was observed in late spring near Segment 1 of the Alternative Project, indicating possible local reproduction; this location was not mapped (TRC, 2013).

Cooper's Hawk (CSSC, WRCMSHCP Covered Species)

Cooper's hawk courtship behavior was observed along Warm Springs Creek at the southern end of Segment 1 of the Alternative Project Survey Area (TRC, 2013) (Figure 4.4-12 Special Status Bird Species).

Swainson's Hawk (Federal Bird of Conservation Concern, State Threatened)

Swainson's hawk (*Buteo swainsoni*) does not nest or winter in the region of the Alternative Project, but moves through the area during the fall and spring migration and is only present for a short time. This species has a moderate likelihood to occur in the agricultural and open habitats in Segment 1 of the Alternative Project Survey Area during its migration between wintering and breeding areas wherever foraging and roosting opportunities occur, but it is not expected to breed in the area. None were detected during biological surveys (TRC, 2013; AECOM, 2014a).

Ferruginous Hawk (CSSC; WRCMSHCP Covered Species)

Ferruginous hawk is expected to migrate through the Alternative Project in the winter, foraging in the extensive grasslands, agricultural areas, and open scrub. Although it has a moderate likelihood of occurring in Segment 1 of the Alternative Project Survey Area, none were observed during biological surveys (TRC, 2013; AECOM, 2014a).

Golden Eagle (CSSC, California Fully Protected Species, WRCMSHCP Covered Species)

No golden eagles were observed in the Alternative Project Survey Area, but two juveniles were observed adjacent to the northern part of Segment 1 of the Proposed Project, suggesting nesting in the local mountains (TRC, 2013) (Figure 4.4-12 Special Status Bird Species). Foraging in Segment 1 of the Alternative Project can occur at any time of year.

Loggerhead Shrike (Federal Bird of Conservation Concern, CSSC, WRCMSHCP Covered Species)

Loggerhead shrike has a high potential to occur within Segment 1 of the Alternative Project in the open grassland and agricultural areas. Several pairs of loggerhead shrike were documented in open agricultural terrain within the Proposed Project. This species could occur within the Alternative Project Survey Area, but none were observed during field surveys.

Merlin (WRCMSHCP Covered Species)

Merlin (*Falco columbarius*) has a high potential to occur within Segment 1 of the Alternative Project in the winter throughout grasslands and fallow agricultural areas within and adjacent to the Alternative Project. This species was not observed during field surveys.

Mountain Plover (CSSC, WRCMSHCP Covered Species)

Mountain plover (*Charadrius montanus*) has moderate potential to occur in the winter throughout grasslands and fallow agricultural areas within and adjacent to Segment 1 of the Alternative Project Survey Area. This species was not observed during field surveys.

Northern Harrier (CSSC, WRCMSHCP Covered Species)

Northern harrier was detected within Segment 1 of the Alternative Project, south of the intersection of Briggs Road and Thompson Road (TRC, 2013) (Figure 4.4-12 Special Status Bird Species).

Prairie Falcon (CSSC, WRCMSHCP Covered Species)

Prairie falcon has a high potential to forage within nonnative grassland habitats available throughout the Alternative Project. One prairie falcon was previously detected during surveys of Segment 1 of the Alternative Project by TRC (not mapped) (TRC, 2013). Suitable nesting habitat is not present within the Alternative Project Survey Area, so it is unlikely to breed in the area.

Red-Shouldered Hawk (Sensitive Nest Sites) and Red-Tailed Hawk (Sensitive Nest Sites)

At least one pair of red-shouldered hawks was regularly detected just beyond the southern part of Segment 1 of the Alternative Project, likely nesting in a large eucalyptus grove to the west of the alignment (TRC, 2013). Red-tailed hawk nesting pairs were documented within 0.5 of a mile of Segment 1 of the Alternative Project (TRC, 2013). Two red-tailed hawk nests were observed and mapped within Segment 2 of the Alternative Project Area. One of the two red-tailed hawk nests had a young chick sitting in the nest, located approximately 500 feet from the western end of the Alternative Project area, along Los Alamos Road. They were observed in Segment 2 of the Alternative Project, north of the intersection of Los Alamos Road and Briggs Road (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species); thus, they have a potential to nest within Segment 1 of the Alternative Project Survey Area.

Southern California Rufous-Crowned Sparrow (CSSC, WRCMSHCP Covered Species)

Southern California rufous-crowned sparrows were found to occupy all significant patches of coastal sage scrub within Segment 1 of the Alternative Project (TRC, 2013).

Lawrence's Goldfinch (Federal Bird of Conservation Concern)

Lawrence's goldfinch (*Spinus lawrencei*) has a high likelihood of foraging within open areas of the Alternative Project Survey Area, but none were observed.

Stephens' Kangaroo Rat (Federally Endangered, California Threatened, CSSC, WRCMSHCP Covered Species)

Stephens' kangaroo rats were detected by trapping in grassland and open coastal sage scrub in Segment 1 of the Alternative Project, along Menifee Road and along Thompson Road (TRC, 2013) (Figure 4.4-13 Special Status Mammal Species).

Northwestern San Diego Pocket Mouse (CSSC, WRCMSHCP Covered Species)

One northwestern San Diego pocket mouse was trapped in a mosaic of nonnative grassland and coastal sage scrub at the southern end of Segment 1 of the Alternative Project Survey Area (TRC, 2013) (Figure 4.4-13 Special Status Mammal Species).

Los Angeles Pocket Mouse (CSSC, WRCMSHCP Covered Species)

Trapping for this species was conducted concurrently with Stephens' kangaroo rat surveys, and none were detected within Segment 1 of the Alternative Project. This species is considered to have a low potential to occur within Segment 1 of the Alternative Project Survey Area, where the amount of suitable habitat for this species is limited.

Dulzura Pocket Mouse (CSSC)

Dulzura pocket mouse has a moderate potential to occur in Segment 1 of the Alternative Project Survey Area based on the presence of suitable habitat, but this species was not observed during small mammal trapping.

San Diego Desert Woodrat (CSSC, WRCMSHCP Covered Species)

San Diego desert woodrats were trapped in grassland and open coastal sage scrub at several locations in Segment 1 of the Alternative Project Survey Area along Menifee Road north of Thompson Road (TRC, 2013) (Figure 4.4-13 Special Status Mammal Species).

Southern Grasshopper Mouse (CSSC)

One southern grasshopper mouse was trapped in grassland and open coastal sage scrub in the southern portion of Segment 1 of the Alternative Project Survey Area, near the intersection of Briggs Road and Thompson Road (TRC, 2013) (Figure 4.4-13 Special Status Mammal Species).

San Diego Black-Tailed Jackrabbit (CSSC, WRCMSHCP Covered Species)

San Diego black-tailed jackrabbits were found in grassland, agriculture, and open coastal sage scrub in Segment 1 of the Alternative Project along Menifee Road (TRC, 2013) (Figure 4.4-13 Special Status Mammal Species).

Coast Horned Lizard (CSSC, WRCMSHCP Covered Species)

Coast horned lizard was documented in several locations in coastal sage scrub patches in Segment 1 of the Alternative Project Survey Area along Menifee Road (TRC, 2013) (Figure 4.4-14 Amphibian and Reptile Species).

Coastal Western Whiptail (WRCMSHCP Covered Species)

Coastal western whiptails were documented in grassland and coastal sage scrub within Segment 1 of the Alternative Project Survey Area near the Menifee Road and Thompson Road intersection (TRC, 2013) (Figure 4.4-14 Amphibian and Reptile Species).

Orange-Throated Whiptail (WRCMSHCP Covered Species)

Orange-throated whiptail was documented at one location in Segment 1 of the Alternative Project Survey Area along Menifee Road (TRC, 2013) (Figure 4.4-14 Amphibian and Reptile Species).

Silvery Legless Lizard (CSSC)

Silvery legless lizard was not detected during surveys, but it has a moderate likelihood of occurrence in areas of loose, sandy soil within Segment 1 of the Alternative Project Survey Area.

San Diego Banded Gecko (California Special Animal, WRCMSHCP Covered Species)

San Diego banded gecko is a cryptic, nocturnal species. It was not detected but is likely to occur in large boulder outcrops throughout Segment 1 of the Alternative Project Survey Area.

Red Diamond Rattlesnake (CSSC, WRCMSHCP Covered Species)

Red diamond rattlesnake was detected within Segment 1 of the Alternative Project Survey Area along Menifee Road (TRC, 2013) (Figure 4.4-14 Amphibian and Reptile Species).

Two-Striped Garter Snake (CSSC)

This species was documented within Segment 1 of the Alternative Project Survey Area along Menifee Road (TRC, 2013) (Figure 4.4-14 Amphibian and Reptile Species).

Western Spadefoot Toad (CSSC, WRCMSHCP Covered Species)

This species was documented in Segment 1 of the Alternative Project Survey Area along Thompson Road (TRC, 2013) (Figure 4.4-14 Amphibian and Reptile Species).

Quino Checkerspot Butterfly (Federally Endangered, WRCMSHCP Covered Species)

Quino checkerspot butterfly was not surveyed during the 2012 flight season. However, potential habitat, including the presence of dot-seed plantain, was documented within the southern portions of Segment 1 of the Alternative Project (Figure 4.4-15 Potential Quino Checkerspot Butterfly Habitat). These polygons occur along the north/south and southern east/west parts of the Alternative Project Survey Area during surveys in 2013. This area coincides with designated Critical Habitat for the species and is near recent documented occurrences.

Riverside Fairy Shrimp (Federally Endangered, WRCMSHCP Covered Species) and Vernal Pool Fairy Shrimp (Federally Threatened, WRCMSHCP Covered Species)

Riverside fairy shrimp and vernal pool fairy shrimp were not surveyed for during the 2012 season (TRC, 2013). Marginally suitable habitat in the form of scattered wetland basins is present. A protocol survey was initiated in January 2013 and more than 50 small basins were mapped. Fairy shrimp were found in ponds along Segment 1 of the Alternative Project; all were identified as the nonlisted Lindahl's fairy shrimp (See Appendix F BRA Segment 1 and Segment 2).

Critical Habitat

Segment 1 of the Alternative Project contains designated USFWS Critical Habitat for spreading navarretia. The area is depicted in Figure 4.4-7 Critical Habitat. The area containing spreading navarretia Critical Habitat occurs in a disturbed wetland basin classified as San Diego Mesa claypan vernal pool vegetation type (Figure 4.4-7 Critical Habitat and Figure 4.4-4 Vegetation and Other Land Cover Types) located northeast of the intersection of Scott Road and Menifee Road. However, the 2012 rare plant survey did not detect this species. Furthermore, examination of the site in early 2013 revealed that it had been disked since summer 2012 by the local landowner or municipality, and it likely no longer provides suitable conditions for this species. SCE may conduct surveys in 2015 if field conditions permit, and if it seems necessary to collect additional data.

Wildlife Corridors

Segment 1 of the Alternative Project could be used by a variety of wildlife species for movement purposes. Wildlife movement generally refers to dispersal, seasonal migration, or movement within home ranges. Activities within an animal's home range typically include foraging, searching for mates/breeding areas, defending territory, and other activities. Dispersal may be juveniles dispersing from natal areas or adults extending range distribution. Wildlife movement corridors within the Alternative Project are shown in Figure 4.4-16 Proposed and Alternative Projects in Context of WRCMSHCP.

Within Segment 1 of the Alternative Project, most areas that are relatively flat with no drainages have been converted to agriculture, small ranches (a few acres or less), or dense urban use. Native habitat is generally either on sloped areas (sage scrub with some chaparral) or within drainages (mulefat, cottonwood, willow scrub). This area has been heavily impacted by urban development. Roads bisect the Alternative Project and to the south, southwest, east, and northeast is heavy urban and industrial development. I-215 and I-15 are to the west and southwest of the Alternative Project, with SR-79 crossing the Alternative Project in the north.

Segment 1 of the Alternative Project falls within WRCMSHCP Criteria Cells and is within Proposed Core 2 and Proposed Constrained Linkage 18, is near Existing Constrained Linkages E and A of the WRCMSHCP, and is adjacent to Existing Core J. Biological core areas are relatively conceptual but are based on actual large, unbroken areas of primarily native habitats. The areas described for conservation associated with these cores and linkages are shown in Figure 4.4-16 Proposed and Alternative Projects in Context of WRCMSHCP.

Due to the impacts of human activity, the WRCMSHCP cores and linkages reflect actual movement corridors that currently exist in this area of the Alternative Project. The exception to this is for species dependent on agricultural habitat, such as western burrowing owl. In general, agricultural land has not been included in the cores and linkages.

Segment 2 of the Alternative Project

For the first approximately 2 miles (from a TSP located east of Auld 115/12 kV Substation continuing east and southeast until it reaches the TSP located at the southeast corner of Leon Road and Benton Road), Segment 2 of the Alternative Project would traverse through the City of Murrieta and unincorporated Riverside County. It would follow the existing Valley-Auld-Triton 115 kV Subtransmission Line and existing roadways.

This section describes biological resources within Segment 2 of the Alternative Project, including vegetation communities, sensitive vegetation communities, special status biological resources (including sensitive vegetation communities, jurisdictional wetlands and waters, special status plants, and special status wildlife), critical habitat, and wildlife corridors.

Vegetation Communities

Eleven vegetation communities, subtypes, and other land cover types were documented and mapped within Segment 2 of the Alternative Project Study Area. Some are the same as described for Segment 1 of the Alternative Project previously; descriptions for those communities are not repeated in this section. Those vegetation communities specific to Segment 2 of the Alternative Project (that do not occur in Segment 1 of the Alternative Project) are described below. Vegetation communities identified for Segment 2 of the Alternative Project are quantified in Table 4.4-10 Vegetation and Land Cover Types within a 500-Foot Buffer of the Alternative Project, which includes vegetation type acreages for Segments 1 and 2 unique to the Alternative Project. Their distributions are depicted in Figure 4.4-4 Vegetation and Other Land Cover Types.

Freshwater Marsh

Approximately 0.36 of an acre of freshwater marsh occurs within Segment 2 of the Alternative Project Study Area.

Emergent Wetland

The emergent wetland community is characterized by herbaceous vegetation, including cocklebur (*Xanthium strumarium*), curly dock, western ragweed (*Ambrosia psilostachya*), and water smartweed (*Persicaria* spp.). A total of 5.43 acres of emergent wetland occurs in a drainage by Winchester Road within Segment 2 of the Alternative Project Study Area.

Disturbed Wetland

The disturbed wetland found in the Alternative Project Study Area is an unvegetated, earthen drainage ditch that holds water for a few weeks following rain events. This wetland type covers 0.06 of an acre and is located immediately north of Benton Road within Segment 2 of the Alternative Project Study Area.

Mulefat Scrub

This riparian scrub community occurs along drainages and is strongly dominated by mulefat, in association with red willow, southern cottonwood (*Populus fremontii*), and tarragon (*Artemisia dracunculus*). A total of 0.21 of an acre of mulefat scrub is located in a temporarily ponded area within Segment 2 of the Alternative Project Study Area.

Southern Willow Scrub

Segment 2 of the Alternative Project Study Area has 0.22 of an acre of southern willow scrub.

Tamarisk Scrub

This community is dominated by tamarisk, with the occasional mulefat and red willow. A total of 0.01 of an acre of tamarisk scrub occurs within Segment 2 of the Alternative Project Study Area near Benton Road.

Nonnative Grassland

Nonnative grassland covers approximately 19.72 acres within Segment 2 of the Alternative Project Study Area.

Disturbed/Ruderal

The disturbed/ruderal cover type is distributed across 23.22 acres within Segment 2 of the Alternative Project Study Area, occurring on field edges, road margins, untended agricultural fields, and other areas previously mechanically disturbed, such as abandoned graded construction pads.

Diegan Coastal Sage Scrub

A total of 2.07 acres of Diegan coastal sage scrub occurs in Segment 2 of the Alternative Project Study Area, mainly along hill slopes with large granitic outcrops.

Nonnative Woodland/Ornamental

Approximately 0.32 of an acre of mapped nonnative woodland/ornamental stands is located within Segment 2 of the Alternative Project Study Area.

Urban/Developed

A total of 44.63 acres of urban/developed cover type occurs within Segment 2 of the Alternative Project Study Area.

Special Status Biological Resources

The special status biological resources are shared by the Proposed Project and Alternative Project. The same suite of 19 special status plants and 34 special status animal species have a medium to high likelihood of detection within Segment 1 of the Alternative Project. For more information on special status wildlife, see Appendix F BRA Segment 1 and Segment 2.

Sensitive Vegetation Communities

The same sensitive vegetation communities as described for Segment 1 of the Alternative Project occur within Segment 2 of the Alternative Project, including Diegan coastal sage scrub and riparian communities. See Table 4.4-10 Vegetation and Land Cover Types within a 500-Foot Buffer of the Alternative Project and Figure 4.4-4 Vegetation and Other Land Cover Types for acreages and distributions of sensitive vegetation communities, and Section 4.4.2, Regulatory Setting, for a review of applicable laws.

Jurisdictional Waters and Wetlands

Segment 2 of the Alternative Project supports four jurisdictional features. The four jurisdictional features consist of three intermittent streams and their associated wetland/riparian vegetation and a swale. The swale (Feature I; also labeled as TPA 2) did not support an OHWM and is exclusively a water of the state. This swale forms and dissipates within the Alternative Project Study Area, abating within an upland field, and is not connected to receiving waters downstream.

The potential USACE and SWRCB/RWQCB jurisdiction within Segment 2 of the Alternative Project totals approximately 2.60 acres, of which 2.51 acres are wetlands and 0.09 of an acre is non-wetland waters of the U.S. Locations. Limits of these USACE and SWRCB/RWQCB jurisdictional areas are depicted in Figure 4.4-5 USACE and RWQCB Waters Jurisdiction. Acreages of USACE jurisdiction for individual features within Segment 2 of the Alternative Project Study Area are summarized in Table 4.4-14 Summary of Potential 401 and 404 Jurisdiction for Segment 2 of the Alternative Project.

Table 4.4-14 Summary of Potential 401 and 404 Jurisdiction for Segment 2 of the Alternative Project

Feature Name	Waters of the U.S. (Acres)	Wetland Areas (Acres)	Total USACE Jurisdiction (Acres)	Approximate Linear Feet
Feature J	< 0.01	0.01	0.01	293
Feature K	0	2.47	2.47	460
Feature L	0.09	0.03	0.12	731
Total	**0.09**	**2.51**	**2.60**	**1,484**

CDFW jurisdiction associated with Segment 2 of the Alternative Project Study Area totals approximately 3.13 acres, of which 2.93 acres consist of vegetated riparian habitat and 0.21 of an acre consists of unvegetated streambed. The acreages of all features within Segment 2 of the Alternative Project Study Area are listed in Table 4.4-15 Summary of CDFW Jurisdiction for Segment 2 of the Alternative Project.

Table 4.4-15 Summary of CDFW Jurisdiction for Segment 2 of the Alternative Project

Feature Name	CDFW Unvegetated (Acres)	CDFW Riparian (Acres)	Total CDFW Jurisdiction (Acres)	Approximate Linear Feet
Feature I	0.12	0	**0.12**	187
Feature J	< 0.01	0.08	**0.08**	293
Feature K	0	2.72	**2.72**	460
Feature L	0.09	0.13	**0.21**	731
Total	**0.21**	**2.93**	**3.13**	**1,671**

Special Status Plant Species

Two special status plant species that were detected within Segment 2 of the Alternative Project are discussed below, and their locations can be seen in Figure 4.4-9 Special Status Plant Species. Descriptions of both species (also detected within Segment 1 of the Alternative Project) are consistent with the descriptions previously described for Segment 1 of the Alternative Project and are not repeated here.

Long-Spined Spineflower (CNPS List 1B.2)

Within Segment 2 of the Alternative Project Study Area, along Briggs Road, south of Los Alamos Road, approximately 500 individuals of long-spined spineflower were observed in an area of 4,000 square feet (AECOM, 2014a) (Figure 4.4-9 Special Status Plant Species).

Paniculate Tarplant (CNPS List 4.2)

Paniculate tarplant is a CNPS List 4.2 species. This plant is a low-growing annual herb found on clay and sandy soils within areas of grassland. Hundreds of individuals of paniculate tarplant were observed in scattered populations within Segment 2 of the Alternative Project Study are on clay soils within areas of nonnative grassland and openings in Diegan coastal sage scrub (Figure 4.4-9 Special Status Plant Species).

Special Status Wildlife Species

Special status species detected or with a moderate or high likelihood of occurring within Segment 2 of the Alternative Project are discussed in this section. See Appendix F BRA Segment 1 and Segment 2 for more information on special status animals.

Great Blue Heron (California Special Animal)

There is suitable foraging habitat for this species within Segment 2 of the Alternative Project, and it has moderate potential to nest within the Alternative Project Survey Area. However, this species was not found during biological surveys.

Coastal California Gnatcatcher (Federally Threatened, CSSC, WRCMSHCP Covered Species)

Although focused surveys were not conducted within Segment 2 of the Alternative Project, this species is likely to occur within Diegan coastal sage scrub communities associated with the Alternative Project Survey Area (AECOM, 2014a).

Least Bell's Vireo (Federally Endangered, California Endangered, WRCMSHCP Covered Species)

During 2014 protocol surveys for the species in Segment 2 of the Alternative Project, a fledgling was heard begging within the nest; thus, a breeding pair was confirmed for the riparian corridor south of the Los Alamos Road and Briggs Road intersection (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species).

The suitable habitat for least Bell's vireo was divided into three distinct areas known as Survey Area 1, Survey Area 2, and Survey Area 3 (Figure 4.4-12 Special Status Bird Species). Survey Areas 1 and 2 occur within the Proposed Project and Survey Area 3 occurs within the Alternative Project. Within the Alternative Project, Survey Area 3 is located near the intersection of Los Alamos Road and Briggs Road and consists of one narrow strip of southern willow scrub (1.36 acres), with one additional strip of mulefat scrub (0.38 of an acre). Survey Area 3 had high suitability for least Bell's vireo due to presence of early to mid-successional riparian habitat with dense shrub cover.

During the first survey on April 24, 2014, a single male least Bell's vireo was detected in Survey Area 3 within the Alternative Project (Figure 4.4-12 Special Status Bird Species). During surveys 3 and 4 on May 15, and May 27, 2014, respectively, one singing male least Bell's vireo was detected in Survey Area 3 (Figure 4.4-12 Special Status Bird Species). During the fifth survey conducted on June 9, 2014, a breeding pair was confirmed in Survey Area 3 as two adult least Bell's vireos were observed together, and begging calls of a chick in a nest were heard nearby (Figure 4.4-12 Special status Bird Species). During the sixth survey, a singing male least Bell's vireo was detected foraging with a begging juvenile in Survey Area 3. During the seventh survey on June 30, 2014, a family group of least Bell's vireos (with at least one juvenile) was detected in Survey Area 3. During the eighth survey on July 11, 2014, a single singing male least Bell's vireo was detected in Survey Area 3. Thus, Segment 2 of the Alternative Project was confirmed to support a breeding pair of least Bell's vireo.

Southwestern Willow Flycatcher (Federally Endangered, California Endangered, WRCMSHCP Covered Species)

For Segment 2 of the Alternative Project, the suitable habitat for willow flycatcher within the Alternative Project Survey Area was divided into three distinct areas known as Survey Area 1, Survey Area 2, and Survey Area 3 (Figure 4.4-12 Special Status Bird Species). Survey Areas 1 and 2 occur within the Proposed Project; Survey Area 3 occurs within the Alternative Project near the intersection of Los Alamos Road and Briggs Road and consists of one narrow strip of southern willow scrub (1.36 acres) with one additional strip of mulefat scrub (0.38 of an acre). Survey Area 3 has similar conditions to Survey Areas 1 and 2, and thus has a low potential to support southwestern willow flycatcher.

During 2014 surveys, a migrant was detected within Survey Area 3 during a least Bell's vireo survey conducted on May 29. It is likely that this species is a migrant because it was not seen during subsequent surveys, which would indicate it is not the endangered subspecies.

Western Burrowing Owl (Federal Bird of Conservation Concern, CSSC, WRCMSHCP Covered Species)

Burrowing owls were not observed within the Alternative Project Survey Area, but suitable habitat exists and there are numerous records for occurrences in the vicinity (TRC, 2013; AECOM, 2014a). Although they were not detected during surveys, the likelihood of burrowing owls inhabiting Segment 2 of the Alternative Project remains high.

During 2014 surveys, 48 potentially suitable burrows were documented within Segment 2 of the Alternative Project Survey Area (AECOM, 2014) (Figure 4.4-12 Special Status Bird Species). This species was not detected in Segment 2 of the Alternative Project, and no active sign was observed at recorded burrow locations. However, this species was previously detected during surveys conducted for the Triton Substation Project within Segment 2 of the Alternative Project, south of the intersection of Benton Road and Leon Road (SCE, 2008) (Figure 4.4-10 Existing Resources Data for Birds, Amphibians, and Reptiles). Additionally, multiple CNDDB records document this species occurring within 3 miles of the Alternative Project (CDFW, 2014a) (Figure 4.4-10 Existing Resource Data for Birds, Amphibians, and Reptiles).

Costa's Hummingbird (California Special Animal)

There is a high likelihood of this species occurring within the Alternative Project Survey Area, but none were observed during biological surveys (TRC, 2013; AECOM, 2014a).

Black-Crowned Night Heron (California Special Animal, WRCMSHCP Covered Species)

Black-crowned night heron was detected within Segment 2 of the Proposed Project within mulefat scrub habitat during least Bell's vireo surveys (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species). Suitable habitat is present within riparian and wetland habitats located in Segment 2 of the Alternative Project, so it may inhabit those areas as well.

White-Faced Ibis (California Watch List, WRCMSHCP Covered Species)

White-faced ibis was detected flying over Segment 2 of the Alternative Project during least Bell's vireo surveys in 2014 (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species). There were four detections of this species flying over riparian and wetland habitats within Segment 2 of the Alternative Project near the intersection of Los Alamos Road and Briggs Road (Figure 4.4-12 Special Status Bird Species), but this species was not seen on the ground. Based on the frequency of observations, there is a high potential that this species may nest within dense riparian habitat within Segment 2 of the Alternative Project Survey Area.

American Kestrel (Sensitive Raptor Species)

During nesting raptor surveys conducted in 2014, American kestrel was detected within Segment 2 of the Alternative Project Survey Area near the intersection of Los Alamos Road and Briggs Road, and near the intersection of Benton Road and Leon Road (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species).

Bell's Sage Sparrow (Bird of Conservation Concern, California Watch List, WRCMSHCP Covered Species)

Although none were observed during surveys within Segment 2 of the Alternative Project Survey Area, this species has a high likelihood of occurring based on the presence of suitable habitats and known locations within proximity of the Proposed Project (AECOM, 2014a).

California Horned Lark (CSSC, WRCMSHCP Covered Species)

This species was documented within Segment 2 of the Alternative Project Survey Area within disturbed/ruderal cover type at the intersection of Benton Road and Leon Road and along Briggs Road during 2014 biological surveys (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species).

Grasshopper Sparrow (California Species of Concern)

There is a moderate potential for grasshopper sparrows to occur within Segment 2 of the Alternative Project Survey Area for both foraging and nesting, but none were detected during biological surveys (TRC, 2013; AECOM, 2014a).

Yellow Warbler (Federal Bird of Conservation Concern, California Watch List Species, and WRCMSHCP-Covered Species)

This species was detected in riparian scrub south of the intersection of Los Alamos Road and Briggs Road during least Bell's vireo surveys within Segment 2 of the Alternative Project Survey Area (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species).

White-Tailed Kite (California Fully Protected Species, WRCMSHCP-Covered Species)

Although suitable nesting and foraging habitat are present in Segment 2 of the Alternative Project, no white-tailed kites were observed during biological surveys (AECOM, 2014a).

Cooper's Hawk (CSSC, WRCMSHCP-Covered Species)

Although this species has a high potential to occur within Segment 2 of the Alternative Project based on documented presence with Segment 1 of the Alternative Project and suitable habitats within Segment 2, none were detected (AECOM, 2014a).

Swainson's Hawk (Federal Bird of Conservation Concern, State Threatened)

Swainson's hawk has a moderate likelihood to occur in the agricultural and open habitats in Segment 2 of the Alternative Project Survey Area during its migration between wintering and breeding areas wherever foraging and roosting opportunities occur, but it is not expected to breed in the area. None were detected during biological surveys (TRC, 2013; AECOM, 2014a).

Ferruginous Hawk (CSSC; WRCMSHCP-Covered Species)

Although ferruginous hawk has a high likelihood of occurring in Segment 2 of the Alternative Project, none were observed during biological surveys (TRC, 2013; AECOM, 2014a).

Loggerhead Shrike (Federal Bird of Conservation Concern, CSSC, WRCMSHCP-Covered Species)

Several pairs of loggerhead shrike were documented in open agricultural terrain within the Proposed Project Survey Area, and they could occur within Segment 2 of the Alternative Project Survey Area, but none were observed during field surveys.

Merlin (WRCMSHCP Covered Species)

Merlin has a high potential to occur within Segment 2 of the Alternative Project in the winter throughout grasslands and fallow agricultural areas within and adjacent to the Alternative Project. This species was not observed during field surveys.

Mountain Plover (CSSC, WRCMSHCP Covered Species)

Mountain plover has moderate potential to occur in the winter throughout grasslands and fallow agricultural areas within and adjacent to Segment 2 of the Alternative Project Survey Area. This species was not observed during field surveys.

Northern Harrier (CSSC, WRCMSHCP Covered Species)

Northern harriers have a high potential to occur within Segment 2 of the Alternative Project due to presence within Segment 1 of the Alternative Project, but none were observed during field surveys (AECOM, 2014a).

Prairie Falcon (CSSC, WRCMSHCP Covered Species)

This species has a high potential to forage within nonnative grassland habitats available throughout Segment 2 of the Alternative Project Survey Area, but none were observed during field surveys (AECOM, 2014a).

Red-Shouldered Hawk (Sensitive Nest Sites) and Red-Tailed Hawk (Sensitive Nest Sites)

Red-shouldered hawks were not observed in Segment 2 of the Alternative Project, but were heard vocalizing adjacent to Segment 2 of the Alternative Project (AECOM, 2014a).

Red-tailed hawk nesting pairs were observed in Segment 2 of the Alternative Project, north of the intersection of Los Alamos Road and Briggs Road (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species).

Southern California Rufous-Crowned Sparrow (CSSC, WRCMSHCP Covered Species)

Although southern California rufous-crowned sparrow has a high likelihood of occurrence in Segment 2 of the Alternative Project based on presence within Segment 1 of the Alternative Project, none were detected (AECOM, 2014a).

Tricolored Blackbird (CSSC, WRCMSHCP Covered Species)

Tricolored blackbirds were observed within emergent wetland habitat in Segment 2 of the Alternative Project Survey Area, south of the intersection of Los Alamos Road and Briggs Road (AECOM, 2014a) (Figure 4.4-12 Special Status Bird Species).

Lawrence's Goldfinch (Federal Bird of Conservation Concern)

This species has a high likelihood of foraging within open areas within Segment 2 of the Alternative Project Survey Area based on the presence of suitable habitat, but none were observed.

Stephens' Kangaroo Rat (Federally Endangered, California Threatened, CSSC, WRCMSHCP Covered Species)

Stephens' kangaroo rat was detected during trapping surveys conducted for Segment 2 of the Alternative Project, along Los Alamos Road (AECOM, 2014a) (Figure 4.4-13 Special Status Mammal Species).

Northwestern San Diego Pocket Mouse (CSSC, WRCMSHCP Covered Species)

Northwestern San Diego pocket mouse was detected in Segment 2 of the Alternative Project Survey Area (AECOM, 2014a) (Figure 4.4-13 Special Status Mammal Species).

Los Angeles Pocket Mouse (CSSC, WRCMSHCP Covered Species)

Trapping for this species was conducted concurrently with Stephens' kangaroo rat surveys, and none were detected. This species is considered to have a low potential to occur within Segment 2 of the Alternative Project Survey Area, where the amount of suitable habitat for this species is limited.

Dulzura Pocket Mouse (CSSC)

Dulzura pocket mouse has a moderate potential to occur in Segment 2 of the Alternative Project Survey Area but was not observed during small mammal trapping.

San Diego Desert Woodrat (CSSC, WRCMSHCP Covered Species)

This species was not detected within Segment 2 of the Alternative Project Survey Area, but it has a high potential to occur based on detections within the Proposed Project and presence of suitable habitat (TRC, 2013).

Southern Grasshopper Mouse (CSSC)

Southern grasshopper mouse was not detected in Segment 2 of the Alternative Project Survey Area, but it has a high potential to occur based on detections within Segment 1 of the Alternative Project and presence of suitable habitat (TRC, 2013).

San Diego Black-Tailed Jackrabbit (CSSC, WRCMSHCP Covered Species)

San Diego black-tailed jackrabbits were found in grassland, agriculture, and open coastal sage scrub in Segment 2 of the Alternative Project on Briggs Road (TRC, 2013; AECOM, 2014a) (Figure 4.4-13 Special Status Mammal Species).

Coast Horned Lizard (CSSC, WRCMSHCP Covered Species)

Coast horned lizard was not detected in Segment 2 of the Alternative Project Survey Area, but there is a high likelihood that it inhabits the area based on presence within Segment 1 of the Alternative Project (TRC, 2013).

Coastal Western Whiptail (WRCMSHCP Covered Species)

Coastal western whiptail was not detected during surveys in Segment 2 of the Alternative Project, but there is a high likelihood that it inhabits the area based on presence within Segment 1 of the Alternative Project (TRC, 2013).

Orange-Throated Whiptail (WRCMSHCP Covered Species)

Orange-throated whiptail was not detected within Segment 2 of the Alternative Project, but there is a high likelihood that it inhabits the area based on presence within Segment 1 of the Alternative Project (TRC, 2013).

Silvery Legless Lizard (CSSC)

Silvery legless lizard was not detected during surveys, but it has a moderate likelihood of occurrence in areas of loose, sandy soil within Segment 2 of the Alternative Project Survey Area.

San Diego Banded Gecko (California Special Animal, WRCMSHCP Covered Species)

San Diego banded gecko is a cryptic, nocturnal species. It was not detected but is likely to occur in large boulder outcrops throughout the Alternative Project Survey Area.

Red Diamond Rattlesnake (CSSC, WRCMSHCP Covered Species)

Red diamond rattlesnake was not detected within Segment 2 of the Alternative Project, but there is a high likelihood that it inhabits the area based on presence within Segment 1 of the Alternative Project (TRC, 2013).

Two-Striped Garter Snake (CSSC)

Two-striped garter snake was not detected during surveys in Segment 2 of the Alternative Project, but there is a high likelihood that it inhabits the area based on presence within Segment 1 of the Alternative Project Survey Area and presence of suitable habitat in Segment 2 (TRC, 2013).

Western Spadefoot (CSSC, WRCMSHCP Covered Species)

Western spadefoot has a high potential to occur within the temporary ponded areas and riparian vegetation communities comprising suitable habitat that occurs within Segment 2 of the Alternative Project. This species was not documented during surveys but was previously detected in Segment 1 of the Alternative Project, and suitable habitat is present in Segment 2 (TRC, 2013).

Quino Checkerspot Butterfly (Federally Endangered, WRCMSHCP Covered Species)

No surveys were conducted in Segment 2 of the Alternative Project Study Area because Quino checkerspot butterfly is a species considered adequately conserved by the WRCMSHCP reserve assembly, and no surveys for this species are required. The habitat mapped within Segment 2 of the Alternative Project Study Area has been described in the WRCMSHCP for conservation for both core habitat (Proposed Core 2) and linkages (Proposed Constrained Linkage 18 and conservation of Existing Constrained Linkage E) to other Quino checkerspot butterfly habitat.

Riverside Fairy Shrimp (Federally Endangered, WRCMSHCP Covered Species) and Vernal Pool Fairy Shrimp (Federally Threatened, WRCMSHCP Covered Species)

Protocol wet and dry season surveys for Riverside fairy shrimp were conducted in Segment 2 of the Alternative Project, but no special status invertebrates were detected (AECOM, 2014a).

Critical Habitat

No critical habitat occurs within Segment 2 of the Alternative Project (Figure 4.4-7 Critical Habitat).

Wildlife Corridors

Wildlife corridors for Segment 2 of the Alternative Project are consistent with those described for Segment 1 of the Alternative Project.

Impact Analysis of the Alternative Project

The following discussion describes the impacts to biological resources in Segment 1 of the Alternative Project and Segment 2 of the Alternative Project for project areas that are not shared with the Proposed Project. The potential "Impact Corridor" is depicted differently for the Alternative Project (Figure 4.4-18 Potential Impact Corridor) because less precise engineering data are currently available for this section, and facilities could be constructed on either side of the Alternative Project centerline. Figure 4.4-18 Potential Impact Corridor shows a 300-foot-wide potential "Impact Corridor" comprising 150 feet on either side of roadways closely paralleled by existing subtransmission lines. For calculation purposes, potential acreages of impacts are expected to be equivalent to impact estimates for the Proposed Project.

Table 4.4-16 Estimated Impacts Within the Alternative Project Potential Impact Corridor

Project Feature	Estimated Disturbance Area for Proposed Project (Acres)		Estimated Disturbance Area for Unshared Alternative Project (Acres)[2]		Estimated Total Disturbance Area for Alternative Project (Acres)	
	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Access Road (400' x 18')[1]	0	0.2	0	0	0	0.2
Subtransmission/ Distribution Relocation	179.3	14.0	88.5	7.0	267.8	21.2

Notes:

1 No access road engineering information for the Alternative Project has been developed. Actual disturbance due to access roads is unknown at this time.

2 Impacts related to the Alternative Project are expected to be similar to the Proposed Project. Acreage was estimated based on the relative impact per mile for the Project and calculated based on length of the unshared portion of the Alternative Route.

Potential permanent land disturbance for the Alternative Project would be approximately 7.0 acres and would temporarily disturb an additional 88.5 acres for a total of 267.8 acres, including the Proposed Project. Direct and indirect impacts to vegetation, habitats, hydrological features, other land cover types, and species could potentially occur due to the Alternative Project. Direct impacts are those that involve ground disturbance and loss of the original ground cover due to grading, construction, and related activities, such as maneuvering or staging. Land disturbance would include all areas affected by construction of the Alternative Project. Indirect impacts are those that do not cause ground disturbance but are related to secondary effects, such as dust, noise, ground vibration, and visual disturbance. Indirect impacts for the Alternative Project are discussed qualitatively, as acreage estimates are not possible. Permanent impacts cause irreplaceable loss of previous ground cover types, and temporary impacts cause short-term damage to cover types that would be expected to recover naturally.

The greatest potential impacts to biological resources resulting from construction of the Alternative Project would be impacts to native and nonnative vegetation communities and populations of special status species. Impacts would be associated predominately with construction activities. APMs, described in Section 4.4.5, would limit impacts to less than significant levels. Impacts would be related to the following activities:

- Road grading and construction
- Pole site preparation and wire stringing activities
- Vegetation removal to facilitate line/pole placement
- Movement of equipment and materials

APMs, described in Section 4.4.5, would limit impacts to less than significant levels. Impact acreage estimates, as shown in Table 4.4-16 Estimated Impacts Within the Alternative Project Potential Impact Corridor, could occur anywhere within the 300-foot potential Impact Corridor shown in Figure 4.4-18 Potential Impact Corridor.

This analysis of impacts from the Alternative Project provides qualitative assessments of impacts to special status species and habitats, as no specific access routes, staging areas, pole sites, and other features have been finalized. Furthermore, the analysis of the Proposed Project in Section 4.4.1 Environmental Setting addresses the Proposed Project alignment and the Alternative Project where they overlap (Figure 4.4-1 Location Map). The approach of this analysis distinguishes the areas of the Alternative Project that are distinct from the complete Proposed Project (unshared) and that do not overlap with the Proposed Project. The analysis of the portions of the Alternative Project that are distinct from the Proposed Project is discussed below.

All direct, permanent and temporary construction impacts resulting from structure installation/removal sites, stringing and pull sites, staging and stockpile areas, haul roads, and equipment work areas, are assumed to be within the limits of the potential "Impact Corridor," which is generally defined here as a 300-foot-wide corridor (Figure 4.4-18 Potential Impact Corridor). The acreages of vegetation within the Alternative Project potential "Impact Corridor" are shown by type in Table 4.4-17 Vegetation and Land Cover Types within the Alternative Project Potential Impact Corridor.

Table 4.4-17 Vegetation and Land Cover Types within the Alternative Project Potential Impact Corridor

Holland 1986	Sawyer et al. 2009	Sensitive Vegetation Community	Segment 1 of the Alternative Project 300-Foot-Wide Corridor (Acres)	Segment 2 of the Alternative Project 300-Foot-Wide Corridor (Acres)	Total Alternative Project 300-Foot-Wide Corridor (Acres)
Riparian Habitats					
Freshwater Marsh (52400)	*Typha* / *Schoenoplectus* herbaceous alliances	Yes	0	0.12	0.12
Emergent Wetland (52440)	*Persicaria-Xanthium strumarium* provisional herbaceous alliance *Distichlis spicata* herbaceous alliance	Yes	0	1.24	1.24
Disturbed Wetland (11200)[1]	*Bolboschoenus maritimus* herbaceous alliance	Yes	0	0.10	0.10
Southern Willow Scrub (63320)	*Baccharis salicifolia* shrubland alliance	Yes	0.49	0	0.49
Central Coast Arroyo Willow Riparian Forest (61230)	*Salix lasiolepis* shrubland alliance	Yes	0.65	0	0.65
Southern Cottonwood – Willow Riparian Forest (61330)	*Populus fremontii* forest alliance	Yes	1.98	0	1.98
Vernal Pool Habitats					
San Diego Mesa Claypan Vernal Pool (44322)[1]	vernal pools, seeps, swales, and plains[2]	Yes	1.17	0	1.17

Holland 1986	Sawyer et al. 2009	Sensitive Vegetation Community	Segment 1 of the Alternative Project 300-Foot-Wide Corridor (Acres)	Segment 2 of the Alternative Project 300-Foot-Wide Corridor (Acres)	Total Alternative Project 300-Foot-Wide Corridor (Acres)
Upland Habitats					
Nonnative Grassland (42200)	*Bromus – Brachypodium distachyon* semi-natural stands and *Avena* semi-natural herbaceous stands	N/A	16.70	17.40	34.10
Disturbed/ Ruderal Habitat (11300)[1,3]	*Bromus – Brachypodium distachyon* semi-natural stands *Avena* semi-natural herbaceous stands *Brassica* and other mustards semi-natural herbaceous stands	N/A	38.68	13.18	51.86
Diegan Coastal Sage Scrub: Inland Form (32520)	*Eriogonum fasciculatum - Salvia apiana* shrubland alliance	Yes	4.68	0	4.68
Diegan Coastal Sage Scrub (32500)	*Artemisia californica-Eriogonum fasciculatum* shrubland alliance *Artemisia californica-Salvia mellifera* shrubland alliance	Yes	27.11	0.40	27.51
Coastal Sage - Chaparral Scrub (37G00)	*Keckiella antirrhinoides* shrubland alliance	Yes	3.67	0	3.67
Chamise Chaparral (37200)	*Adenostoma fasciculatum* shrubland alliance	No	1.72	0	1.72

Holland 1986	Sawyer et al. 2009	Sensitive Vegetation Community	Segment 1 of the Alternative Project 300-Foot-Wide Corridor (Acres)	Segment 2 of the Alternative Project 300-Foot-Wide Corridor (Acres)	Total Alternative Project 300-Foot-Wide Corridor (Acres)
Nonnative Woodland/Ornamental (79000)[1]	*Eucalyptus* semi-natural woodland stands *Schinus* semi-natural woodland stands	N/A	2.31	0.46	2.77
Land Cover Types					
Agriculture (18000)[1]	No counterpart	N/A	25.95	0	25.95
Urban / Developed (12000)[1,4]	No counterpart	N/A	84.59	21.15	105.74
Total			**209.70**	**54.05**	**263.75**

Notes:

[1] Vegetation types not addressed in Holland 1986, are classified according to Oberbauer et al. 2008.

[2] Due to species composition, not resolvable to vegetation alliance level under this system.

[3] Ruderal and Disturbed/Ruderal combined for Segment 1 of the Alternative Project.

[4] Urban/Developed and Disturbed/Developed combined for Segment 1 of the Alternative Project.

This analysis is generic, identifying the maximum potential impacts. However, under the assumption that actual siting would selectively avoid sensitive natural features where possible, and with the understanding that actual impact footprints would be only a subset of the generic 150-foot corridor calculations below, it may be assumed that actual, final impacts would result in the minimal loss of sensitive features.

Potential impacts from the Alternative Project are addressed here in the context of standard evaluation criteria under CEQA.

4.4.6.1 Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Construction

Less Than Significant Impact. The special status species that are unique to the Alternative Project are orange-throated whiptail, red-diamond rattlesnake, tricolored blackbird, southern

grasshopper mouse, and clustered tarweed. Direct impacts to these species from the Alternative Project may include crushing by equipment or destruction of habitat by construction equipment. Indirect impacts to these species could be the removal of vegetation they use for cover, resulting in higher mortality. Participation in the WRCMSHCP as well as implementation of APMs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, and BIO-8 will reduce the impacts to special status species to a less than significant level.

Sensitive natural communities are defined here as vegetation types consisting primarily of distinctive native plant species (see Table 4.4-10 Vegetation and Land Cover Types within a 500-Foot Buffer of the Alternative Project). The potential "Impact Corridor" for the Alternative Project includes the following sensitive natural communities: riparian vegetation, other wetlands, native shrublands, and nonnative grassland.

Woody riparian and herbaceous riparian vegetation provide habitat for many special status species that occur within the Alternative Project. Direct impacts would result from removal of woody vegetation or crushing of herbaceous riparian vegetation. Indirect impacts would include performing construction during the nesting season of special status birds nesting in sensitive habitat.

Considering the occurrence of 3.12 acres of woody riparian vegetation within Segment 1 of the Alternative Project potential "Impact Corridor," avoidance of this habitat type is highly feasible under selective placement of structures and work areas. If it would be impractical to avoid the removal or alteration of woody riparian habitat, the application of APMs BIO-1, BIO-2, BIO-3, BIO-4, and BIO-8 and the implementation of BMPs would reduce the impacts to less than significant. Segment 1 of the Alternative Project has no herbaceous jurisdictional wetlands, and, thus, there would be no impacts to this vegetation type.

Segment 2 of the Alternative Project has no woody riparian vegetation and, thus, there would be no impacts. Segment 2 of the Alternative Project has 1.76 acres of herbaceous riparian wetland habitat. Direct impacts to the relatively small area of these sensitive habitats are expected to be avoided by selective placement of structures and work areas, resulting in no impact.

Coastal sage scrub vegetation provides habitat for coastal California gnatcatcher, among other special status species occur within the Alternative Project. Direct impacts to this special status birds habitat would be crushing or removal of vegetation by construction equipment or activities. Indirect impacts would result from construction activities performed during the nesting season, disrupting normal reproduction. Approximately 37.18 acres of coastal sage scrub and other shrub vegetation within Segment 1 of the Alternative Project potential "Impact Corridor" and 2.07 acres in Segment 2 of the Alternative Project provide habitat for several special status species, in addition to coastal California gnatcatcher. However, the existing subtransmission corridor through these areas primarily follows an unpaved section of Menifee Road, which has a relatively wide buffer of disturbed ground (unvegetated or disturbed/ruderal), thus separating the sensitive shrub vegetation from the subtransmission line. Nevertheless, some level of impact to sensitive shrublands, direct or indirect, may occur from construction and would be expected to be 0.89 of an acre of permanent impacts and 10.59 acres of temporary impacts to these communities within Segment 1 of the Alternative Project. The impact to sensitive shrublands, direct or indirect, may occur to 0.04 of an acre of permanent impacts and 0.09 of an acre of temporary

impacts to sensitive scrub and shrub vegetation with Segment 2 of the Alternative Project. The significance of such impacts must be determined by precise siting of structures and work areas. Direct impacts to this sensitive plant species could occur as a result of activities during construction of the Alternative Project through the removal of plants or destruction of habitat. Activities that could destroy or adversely impact sensitive coastal sage scrub habitat include the use of heavy machinery, tree and vegetation removal, movement of equipment and materials, and access to the construction sites. Direct impacts can be reduced to a level below significance through application of APM BIO-7.

Small areas of eucalyptus woodland occur within Segment 1 of the Alternative Project potential "Impact Corridor," and 0.36 of an acre occurs in Segment 2 of the potential "Impact Corridor." These tree stands provide nesting substrate for bird species, particularly raptors, which are considered sensitive at nest sites. Direct impacts would result from the removal of trees and indirect impacts would result from construction activities being performed during the nesting season. Avoidance of direct impacts to trees would be attempted, but indirect impacts to nesting birds are likely. Reduction of impacts to levels below significance can be achieved by application of APMs BIO-1, BIO-2, BIO-3, BIO-4, and BIO-8.

Approximately 102.44 acres of disturbed herbaceous vegetation (nonnative grassland, ruderal, and agricultural margins) is found within Segment 1 of the Alternative Project potential "Impact Corridor," and 30.58 acres are located in Segment 2 of the Alternative Project. These vegetation types would support the majority of construction and operation of the Alternative Project. These vegetation types support the occurrences of several special status species, including Stephens' kangaroo rat, smooth tarplant, burrowing owl, foraging raptors, and orange-throated whiptail, and possibly Quino checkerspot butterfly, fairy shrimp, and Western spadefoot toad. Direct impacts to this habitat would include crushing from equipment and creation of new roads, and indirect impacts would include the disruption of the normal flow of seasonal rain, altering the composition of species. Depending on specific siting of construction and work areas, impacts to one or more of these species are likely to be significant. Participation in the WRCMSHCP and implementation of APMs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-8, BIO-9, and BIO-10 would serve to reduce these impacts to a level below significant. Inability to reduce impacts would require development of a DBESP analysis on a species-specific basis.

Critical habitat for spreading navarretia, a federally threatened plant species, occurs within the western section of Segment 1 of the Alternative Project, northeast of the intersection of Scott Road and Menifee Road. Direct impacts to this special status plant species could occur as a result of activities during construction of the Alternative Project through the removal of the species or destruction of habitat. Activities that could destroy or adversely impact plant species include the use of heavy machinery, tree and vegetation removal, movement of equipment and materials, and access to the construction sites. Indirect impacts could include alteration of hydrology and floodplain dynamics, excessive flooding, channelization, or water diversions. Application of APMs BIO-1 and BIO-10, and BMPs would reduce impacts to less than significant.

Operation

Less Than Significant Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's O&M personnel. These activities are

expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing work is reviewed by SCE's Natural and Cultural Resources Division prior to implementation resulting in a less than significant impact to biological resources.

As presented in Chapter 3, the Alternative Project (wood, light-weight steel, and TSPs) would be designed to be consistent with APLIC Guidelines (APLIC 2006); this would reduce direct impacts to raptors. Therefore, impacts would be less than significant.

4.4.6.2 Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Construction

Less Than Significant Impact. Sensitive natural communities are interpreted here as vegetation types consisting primarily of distinctive native plant species that define standard vegetation types (see Table 4.4-10 Vegetation and Land Cover Types within a 500-Foot Buffer of the Alternative Project).

Within the potential "Impact Corridor" of the Alternative Project, these comprise the following:

- 3.12 acres of riparian vegetation
- 1.46 acres of other wetlands
- 37.58 acres of native shrublands

Direct effects to riparian habitat and other sensitive natural communities could occur as a result of activities during construction of the Alternative Project through the removal of habitat. Activities that could destroy or adversely impact plant species include the use of heavy machinery, tree and vegetation removal, movement of equipment and materials.

Indirect impacts would be those that cause a change in hydrology or water quality.

Construction activities (combined temporary and permanent impacts) are expected to be proportional to the Proposed Project. Combined temporary and permanent impacts, are estimated at 88.5 acres, and 7 acres, respectively within the Alternative Project Impact Corridor, (see Table 4.4-16 Estimated Impacts within the Alternative Project Impact Corridor).

As discussed above, a specific effort would be applied to detection; temporary marking; and avoidance of riparian vegetation, other wetlands, and native shrublands. The feasibility of such avoidance is high considering the relatively small acreages of the habitats and their discrete, scattered locations. Avoidance of these types is consistent with APM BIO-1 and is expected to reduce impacts to a level below significant. Inability to reduce impacts would require development of a DBESP analysis on a habitat-specific basis.

Operation

Less Than Significant Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's O&M personnel. These activities are expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing work is reviewed by SCE's Natural and Cultural Resources Division prior to implementation resulting in a less than significant impact to biological resources.

4.4.6.3 Would the project 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, and coastal) through direct removal, filling, hydrological interruption, or other means?

Construction

Less Than Significant Impact. Segment 1 of the Alternative Project intersects eight jurisdictional wetland/water features, which collectively comprise approximately 5.04 acres. Segment 2 of the Alternative Project intersects three jurisdictional wetland or water features, which comprise approximately 2.46 acres. Not all of these support distinct wetland vegetation, so they are not distinguishable from the vegetation types within which they occur at the scale of mapping. Construction activities have the potential to either damage such features directly through grading or equipment movement, or indirectly through soil discharge and/or altered hydrology. Given the generally low-gradient topography of the Alternative Project, little to no earth moving is expected. Consequently, it is anticipated that direct and indirect impacts to these highly localized wetlands features can be avoided by perimeter marking, careful siting of structures and work areas, and appropriate water use and soil movement measures, as previously described. Impacts to jurisdictional waters would be less than significant. However, if after final project design, or due to in-field project modifications, unavoidable impacts to jurisdictional wetlands or waters are identified, all appropriate regulatory permits will be obtained prior to the impact-related work.

Operation

Less Than Significant Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's O&M personnel. These activities are expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing work is reviewed by SCE's Natural and Cultural Resources Division prior to implementation resulting in a less than significant impact to biological resources. Additionally, access routes, work areas, and other features would be properly designed and maintained to prevent discharge of soil into wetlands and substantially altering local hydrology. Such measures are expected to ensure that Alternative Project operation effects would be reduced to below the level of significance.

4.4.6.4 Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridor, or impede the use of native wildlife nursery sites?

Construction

Less Than Significant Impact. The majority of the Alternative Project follows either existing moderately travelled paved roads or dirt roads, and the paved roads provide an obstruction to wildlife movement. Work would generally occur near existing roads; therefore, construction-phase activities would likely result in significant, but temporary and localized, increases in local disturbance that may impede local wildlife movement at times. However, Alternative Project work would remain fairly concentrated and noncontinuous, allowing movement of animals between concentrated work areas, especially at night, when most animal dispersal occurs. Night work would be avoided wherever possible.

The Alternative Project extends farther north and west beyond the Proposed Project overlap area, and approaches habitat that has been known to support Quino checkerspot butterfly populations (Hogbacks Mountain and Warm Springs Creek), which is within Proposed Constrained Linkage 15 of the WRCMSHCP. Proposed Core 2 (of which the Proposed Project and Alternative Project are within) connects to Proposed Constrained Linkage 15. The Alternative Project is also within the Warm Springs Core Area associated with Quino checkerspot butterfly. The Alternative Project crosses an unnamed drainage that is described by the WRCMSHCP for conservation; if impacts were to occur within this drainage, a DBESP would be required to ensure no net loss of riparian habitat.

Long-term construction impacts to animal movement are expected to be less than significant with the implementation of proper site management BMPs regarding equipment staging, times of activity, and night-lighting.

The majority of the Alternative Project route follows moderately traveled, primarily two-lane, north/south roadways that currently present a varying degree of obstruction to east/west wildlife movement. The current level of obstruction would be somewhat exacerbated for animals such as mammals and reptiles by construction of the Alternative Project. Landscape movement by birds would be unaffected by construction impacts. However, Alternative Project work would remain fairly concentrated and noncontinuous, allowing movement of animals between concentrated work areas. Furthermore, most animal dispersal occurs at night, and active construction would occur during the day, facilitating avoidance. Construction-phase impacts are anticipated to be less than significant in this regard.

Operation

Less Than Significant Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's O&M personnel. These activities are expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing work is reviewed by SCE's Natural

and Cultural Resources Division prior to implementation resulting in a less than significant impact to biological resources.

Additionally, the Alternative Project would provide no continuous barriers or hazards to wildlife movement and, therefore, would not result in impediments to wildlife movement above current levels.

4.4.6.5 Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Construction

Less Than Significant Impact. The Alternative Project occurs in a predominantly open landscape with relatively few trees. The 300-foot Wide Corridor includes only approximately 5.43 acres of tree-dominated vegetation in Segment 1 of the Alternative Project, and 0.46 of an acre of tree cover in Segment 2 of the Alternative Project, most of which is set back from immediate road edges where most of the subtransmission line would occur. Approximately 3.12 acres of Segment 1 of the Alternative Project is tree cover, and none of Segment 2 of the Alternative Project tree cover in the potential "Impact Corridor" consists of native trees. These areas are expected to be fully avoided by SCE's commitment to not directly impact riparian zones that would be spanned by transmission crossings.

Final transmission design may require trimming or removal of one or more nonnative trees to accommodate the line in certain locations, as well as at some access routes, staging areas, and pull sites. In such cases, the appropriate nondiscretionary permits under Heritage Tree ordinances enforced by some of the surrounding jurisdictions in Riverside County may be required. Such ordinances are incorporated into the WRCMSHCP. Appropriate avoidance measures must be taken relative to tree-nesting birds, as delineated in APMs BIO-1, BIO-2, BIO-3, BIO-5, BIO-6, BIO-7, and BIO-8. Construction impacts are, thus, expected to be reduced to a level less than significant.

Operation

Less Than Significant Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's O&M personnel. These activities are expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing work is reviewed by SCE's Natural and Cultural Resources Division prior to implementation resulting in a less than significant impact to biological resources.

Additionally, certain conditions of proximity of transmission facilities to trees may require periodic trimming after the construction phase. Such actions would be conducted under appropriate permits and would be conducted at a frequency sufficient to prevent incursion of tree foliage into the subtransmission line or other elements. Operational impacts would be less than significant.

4.4.6.6 Would the project conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan?

Construction

No Impact. The Alternative Project would occur entirely within the areas of the WRCMSHCP (2003) and Stephens' Kangaroo Rat HCP (1996). Each of these resource management plans provides specific requirements for projects that occur within their planning area.

SCE would specifically comply with all regulations and policies outlined in the WRCMSHCP and Stephens' Kangaroo Rat HCP, including the following:

a. Applying for coverage under the WRCMSHCP as a PSE with the Western Riverside County RCA by submitting all the required information that would enable RCA review of the project's consistency with WRCMSHCP and payment of the mandatory mitigation fee. Payment of the fee and a determination of consistency with the requirements of the WRCMSHCP are intended to provide full mitigation under CEQA, NEPA, CESA, and FESA for potential impacts to the species and habitats covered by the WRCMSHCP.
b. As an applicant for a PSE, SCE would conserve at least 90 percent of each population of species covered under the WRCMSHCP determined to occur within the area potentially affected by the Valley South 115 kV Subtransmission Project construction activities. If it is determined that at least 90 percent conservation of a special status species population is not achievable, then SCE would seek a DBESP as set forth in Section 6.2.3 of the WRCMSHCP.
c. In addition to the requirements set forth in WRCMSHCP, as a PSE, SCE shall also contribute to Plan implementation through payment of a fee based upon the type of proposed activity, which shall be applicable to all activities in the Plan Area. For Regional Utility Projects, such as the Alternative Project, PSEs shall pay a fee in the amount of 5 percent of total capital costs for permanent impacts as may be agreed to by the RCA. For portions and features of the Project that result in temporary impacts and disturbance, PSEs shall pay a fee in the amount of 3 percent of total capital costs as may be agreed to by the RCA.
d. Compliance with the policies for the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools as set forth in Section 6.1.2 of the WRCMSHCP.
e. Compliance with the policies for the Protection of NEPS as set forth in Section 6.1.3 of the WRCMSHCP.
f. Compliance with survey requirements as set forth in Section 6.3.2 of the WRCMSHCP.
g. Compliance with the Urban/Wildlands Interface Guidelines as set forth in Section 6.1.4 of the WRCMSHCP.
h. Compliance with process for mitigation and/or contribution to Reserve Assembly for future facilities as set forth in Section 6.1.6 of the WRCMSHCP.
i. Applying for incidental take coverage under the Stephens' Kangaroo Rat HCP by paying the required fee. As with the WRCMSHCP, payment of the fee is intended to provide full mitigation to Stephens' kangaroo rat under CEQA, NEPA, CESA, and FESA, and would provide compliance with the Stephens' Kangaroo Rat HCP.

To obtain coverage under the WRCMSHCP and Stephens' Kangaroo Rat HCP, the Alternative Project would be required to abide by the specific performance measures within the plans that direct how projects are approved, constructed, and operated. If aspects of the Alternative Project were to be conducted outside of the conditions imposed by these plans, then it would be in conflict with those plans. SCE intends to comply with both the WRCMSHCP and Stephens' Kangaroo Rat HCP; therefore, there would be no conflict and no impact.

Operation

No Impact. Operation of the Proposed Project would consist of operations, maintenance, and emergency repair activities by SCE's O&M personnel. The activities are expected to be infrequent and generally do not extend beyond established access and work areas around each structure. Ground and/or vegetation disturbing work is reviewed by SCE's Natural and Cultural Resources Division prior to implementation resulting in no conflict with provisions of an adopted HCP or other local conservation plan.

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